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STHAVIROPAKRAMA-2021

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PROCEEDING OF INTERNATIONAL CONFERENCE

on 19 & 20 November 2021

Theme- Geriatric Diseases-Care and Cure to Celebrate

आज़ादी का अमृत महोत्सव

WORLD AYURVEDA DAY - 2021

jointly organized by

Gujrat Board of Ayurvedic & Unani System of Medicine & Parul University

STHAVIROPAKRAMA-2021

Organized by : Department of PG & PHD Studies in SHALYATANTRA
Faculity of Ayurveda, Parul University.

PROCEEDING OF INTERNATIONAL CONFERENCE
THEME-GERIATRIC DISEASES
CARE AND CURE
STHVIROPAKRAMA - 2021

Organized BY:

Department of PG & PHD Studies in Shalyayantra
Faculty of Ayurveda, Parul University

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FOREWORD

I feel honoured to be requested to write the foreword for this excellent work as special add on by the efforts from the Department of Shalya Tantra on conducting Pre International conference Staviropakrama under Azadi ka Amrut Mahotsav on 22/10/2021-23/10/2021 presiding eminent guest speakers.

I am indeed happy to write a foreword to the book which is combined efforts from the department of Bhaishajya kalpana. It has taken a herculean task to compile this book after referring voluminous literature of past and present with reference to Geriatric practice: cure and care by the scholars. This is a genuine work compiling original references by the authors from Ayurveda and contemporary sciences. The resources provide comprehensive knowledge about the subject prepared in accordance with the diseases, drugs involved and its etiopathogenesis. Ayurvedic system of medicine has been practiced in the country and globally from time immemorial and has stood the test of many adversities over centuries.

This book of special additional edition on Shalya Tantra will be a timely contribution to students, practitioners, Scholars and researchers of ayurvedic medicine. The purpose of this book will be served by the progressive discussions and constructive feedbacks from the readers. I am sure the readers will be benefited immensely by this book. I wish the department to get more such opportunities to convert such intricate subject into an interesting and readable one.

Dr B. G. Kulkarni
Principal & Medical Superintendent
Parul Institute of Ayurved &
Research Parul University

FACULTY OF AYURVED

PARUL INSTITUTE OF AYURVED

EVENT NAME: STHAVIROPAKRAMA 2021.

DATE : 22 & 23 OCTOBER 2021

ORGANIZED BY: DEPARTMENT OF SHALYA TANTRA

REPORT

Department of Shalya Tantra, Parul Institute of Ayurveda organized webinar 'STHAVIROPAKRAAMA-2021 on 22 & 23 OCTOBER 2021. It was organized as pre-webinar of International conference to be conducted in Nov 2021 based on the theme of GERIATRICS CARE AND CURE by Faculty of Ayurveda, Parul University, Vadodara, Gujarat

This webinar was being conducted with joint association of Gujarat Board Of Ayurvedic And Unani Medicine on the special occasion of World Ayurveda Day on 2nd November 2021 and the auspicious event of 75th year of Independance which is 'AAZADI KA AMRIT MAHOTSAV'

The co-partners for the webinar were the CAPA - Canadian Ayurvedic Practioners Association; AAPNA- Association Of Ayurvedic Professionals of North America; NSA - National Sushruta Association; NIMA - National Integrated Medical Association, AAP Association of Ayurvedic practitioners along with the Gujarat beard of Ayurvedic and Unani system of medicine.

The experts of Shalya Tantra department planned this session by inviting the legendary speakers who are specialized in five giant groups of geriatric surgery that is Urology, Orthopedic, Anesthesia, Wound care and Para Surgical Procedures.

6 different committees were made for the easy going of the webinar namely-

Sr.no	Name of committees	Committee members
1	TECHNICAL COMMITTEE	DR CHANDRAKANT
		DR HARISH DAGA
		DR DEEP
		DR AQUIB
		DR AADITYA
2	CORRESPONDEUCE COMMITTEE	DR O P DAVE
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		DR ANKIT PANDY
		DR JANKI PANDYA
		DR JATIN
		DR VIKRAM
6	CERTIFICATE COMMITTEE	DR JAYASHEELA
		DR SHAILESH
		DR BHASKAR SONI
		DR VIKRAM
		DR MEGHA

The first scientific session *Prabodhini Satra* was started on 22nd october 2021 in the morning 10 am. Started with the *Dhanwantari Vandana* by Dr. Megha Jadhav and the whole session was moderated by Dr.Ekta Patel Madam, Assistant Professor Dept Of Shalya Tantra. This session was enlightened by speech of Dr.Manoranjan Sahu , President NSA and former head and professor of Shalya Tantra IMS, BHU on the topic 'Scope of Shalyatantra in Geriatric Wound Care' followed by question and answer session.

Second scientific session *Subodhini Satra* was enlightened by Dr. D.N.Pandey , Professor and first founder head of department of Sangyaharan Ayurveda, BHU with consideration of 'Special Care in Anesthesia in Geriatric Shalya Karma'.

Inauguration function was moderated by Dr. Ekta Patel. Welcome speech was given by Dr. O P Dave, Professor Department Of Shalya Tantra, PIA and key note address was given by Dr. P Hemantha Kumar, Secretary of NSA, professor and HOD Shalya Tantra, NIA, Jaipur.

The third session was *Prakashini Satra* for which the speaker was Dr. Inamura Hiroe Sharma, President Osaka Ayurveda from Japan. Dr. Inamura shared her clinical experience of practice of Ayurveda in Japan. In next session *(Tatvabhiniveshini Satra),* Dr. Tazawa, Emeritus Professor, Toyama Medical And Pharmaceutical University, stressed upon 'Practice of Kshara sutra in Japan'. Guest of honor for these two sessions was Dr. S. C. Varshney' Former Professor, Head IMS, BHU And Former Emeritus Professor, Datta Meghe Institution Of Medical Sciences, Wardha, Maharashtra.

Another guest speaker, Dr. Hasmukh Soni, President Of Gujarat Board Of Ayurvedic And Unani System Of Medicine, stressed upon 'Need Of Upgradation Of Shalya Tantra In Present Era'. This session was thanked by Dr.Parikshit Shirode, Professor and Head, Department Of Shalya Tantra, PIA.

Then the paper presentations were done. 8 different rooms were prepared namely-

Sr .no	Name of room	No. Of parti cipants	Co-Ordinators	Name of chairpersons
1	Kaviraj Dr.Ambitkadutt shashtri Memorial Room	11	Dr Parikshit shirode Dr Aquib Dr Nikhil Parmar	Dr.Lokendra & Dr.Vijay Biradar
2	Dr.Bhaskar Govind Ghanekar Memorial Room	11	Dr Vivekanad kullolli Dr Ankit Pande Dr Megha Jadhav Dr Nisha Rathwa	Dr.Ashish & Dr.Gopi Kishan
3	Dr.P.J. DeshpandeMemorial Room	11	Dr O P Dave Dr Jatin Padwal Dr Varsha Chaudhary	Dr.Avnish Path & Dr.Shesasai
4	Dr.M.S. Baghel Memorial Room	10	Dr Shailesh Jaishwal Dr Amitabh Bachchan Dr Aditya Karve	Dr.Rajeshwari & Dr.Samudri
5	Dr.Yadvji Trikamji Memorial Room	11	DR. Harish Daga Dr. Nidhi Puniya Dr. Subham Saini	Dr.Manorama & Dr.Rashmi
6	Dr.Hemant Kushwah Memorial Room	11	Dr. Ekta Patel Dr. Varsha Bagul Dr. Bhaskar Soni	Dr.Varsha Saxena & Dr.Nilesh Jethva
7	Dr.Pandit Shiv Sharma Memorial Room	10	Dr. K.L.Mahajan Dr. Sunita Sharma Dr. Deep Prajapti	Dr.Shital Asutkar & Dr.Siddhu Patel
8	Dr.R.B.Gogate Memorial Room	9	Dr. Chandrakant Pawar Dr. Shreekant P. Dr. Ullas Sengal	Dr.Shiddhes & Dr.Dharampal

In the fifth session which was *Dnyanabhiyogasamharshakari Satra* we had guest speaker Dr.Shekar Annambhotla, President of AAPNA, Pennsylvania, USA who

enlightened us with his speech on topic of ‘Scope Of Marma Chikitsa in Geriatrics In Western Countries’.

In the Evening, sixth session (*Shrutavidnyanadharini Satra)* Dr.C.Suresh kumar, Professor, Department Of Shalya Tantra, Pankaj Kasturi Ayurvedic College, Trivendram on the topic of ‘Scope Of Orthopedics In Genatric Care And Cure’.

Second day of webinar started with 7th session (*Prabodhini Satra)*. Key note address was given by Dr. Hemant Toshikhane, Dean, Faculty of Ayurved , Parul University. Dr. Murlidhar Sharma, Professor Emeritus, SDM College, Udupi delivered his guest speech on the topic ‘Scope of Shalya Tantra in Geriatric Abdominal Conditions’. Then in 8th Scientific session (*Subodhini Satra)* Dr Nilesh Doshi, Founder President Of AAP, Mumbai, shared his thoughts on ‘Clinical Experience In The Scope Of Shalya Tantra In Geriatric Urology’. These two sessions were moderated by Dr. Jayashila Goni, Professor, PIAR. The vote of thanks for these sessions was given by Dr.Parikshit Shirode, Professor Head, Department Of Shalya Tantra, PIA.

In the afternoon remaining session of scientific paper presentations were conducted. In total we had more than 300 registrations and 80 paper presentations by UG, PG, PhD Scholars & Faculties.

Finally, valedictory Function which included two scientific sessions was welcomed by Dr. O.P Dave. In 9th session (*Suhrutparishad Satra)* we had Dr. P.Hematha Kumar as a guest speaker. He shared his knowledge on ‘Scope Of Shalya Tantra In Geriatric Para-Surgical Procedures’ followed by 10th session (*Vaisharadyapradayani Satra*). Another eminent speaker Dr. Harish Kumar, President, Canadian College Of Ayurveda And Yoga, Brampton, Canada delivered his topic ‘Care Of Geriatric Arthritis In Western Countries’.

Then Report-reading of two days webinar was done by Dr. Vivekanand Kulloli, Professor, Department of Shalya Tantra, PIA, Parul University. Winners of best paper presentations were announced by Dr. Harish Daga, Assistant Professor, Department of Shalya Tantra, PIA, Parul University.

Vote of thanks was delivered by Dr. Parikshit Shirode, Professor and Head, Department of Shalya Tantra, PIA, Parul University.

In this two-day webinar, total 10 scientific sessions conducted with each of them given specific Sanskrit names, in these sessions 11 Guests of Honor were participated and shared their valuable knowledge. Total 86 papers presented in 8

rooms with each room were given the name of stalwarts of Ayurveda to commemorate them. These whole webinars and papper presentations were conducted online through meeting platforms like Google Meet, Zoom and also live-telecasted among social media handles like YouTube, Facebook etc. Around 10,000 viewers viewed and shared the function.

Overall, the webinar was helpful for students to understand the details of the clinical as well as practical aspects of topic. More than 400 Students of 1st ,2nd, 3rd and 4th Year BAMS, Interns and PG Scholars attended and got benefited.

The event was successful as it was well organized and appreciated by all.

Links to connect session.

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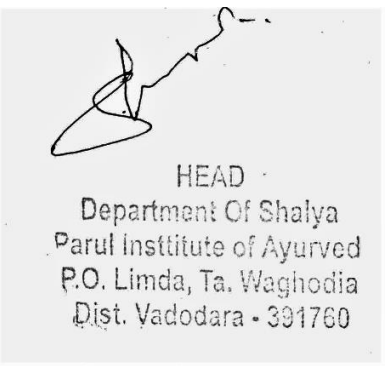
httsp://www.youtube.com/user/drhemant/videos/ www.paruluniversity.ac.in



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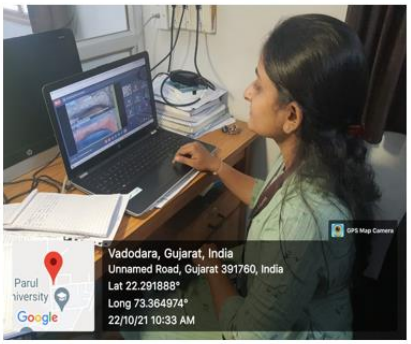

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DEPARTMENT OF SHALYA TANTRA

INTERNATIONAL WEBINAR – STHAVIROPAKRAMA 2021

RESULT OF PAPER PRESENTATION

SR.NO	ROOM NAME	NAMES OF WINNERS	TITLE
1	KAVIRAJ AMBIKA DUTTASHASTRI MEMORIAL	1.DR VAIBHAV MISHRA PIA,VADODARA 2. DR KALPESH BHURIYA PIA, VADODARA	SCOPE OF SHALYATANTRA IN GERIATRIC ANAESTHECIA. UTTARBASTI- PROMISING TREATMENT IN BPH

2	DR BHASKAR GOVIND GHANEKAR MEMORIAL	1.DR SHILPA SAMRITA SCHOOL OF AYURVEDA, KERALA 2.DR PONNULAXMI D AMRITA SCHOOL OF AYURVEDA, KERALA 2.DR ANNET THOMAS SDM COLLEGE, UDUPI	EFFECTIVENESS OF AYURVEDA IN GERATRIC UTI A BIRDS EYE ON UNDERSTANDING OF URINARY INCONTINENCE AND ITS AYURVEDIC MANAGEMENTA SINGLE CASE STUDY TO EVALUATE COMBINED EFFECT OF JALAUKAVACHARAN AND TRIPHALA KWATH PARISHEK IN CHRONIC VENOUS ULCER.
3	DR P J DESHPANDE MEMORIAL	1.DR VEENA P SDM COLLEGE, UDUPI 2.DR TALSANIYA ASHISH ITRA, JAMNAGAR	ROLE OF PANCHAKARMA IN FRACTURE MANAGEMENT. EFFICACY OF MATRA BASTI IN THE MANAGEMENT OF MUTRAGHAT
4	DR MS BAGHEL MEMORIAL	1.DR VINEET NARSIMHA GAC OSMANABAD 2. VISHMAYA ANIL SDM COLLEGE, UDAPI	UTTARBASTI IN URETHRAL STRICTURE KSHARKARMA IN RECTAL PROLAPSE
5	ACHARYA YADVJI TRIKAMJI MEMORIAL	1.NIDHI POONIA PIA, VADODARA 2.DR VISHNUPRIYA G AMRITA SCHOOL OF AYURVEDA, KERALA	ROLE OF PANCHAKSHEER BASTI IN OSTEOPOROSIS TRIPHALA MASHI IN ANAL FISTULA/ DUSHTAVRANA
6	DR HEMANT KUSHWAH MEMORIAL	1.MEGHANA NAYAK GAM&RC, SHIRODA, GOA 2.DR PRIYAL GHORIYA ITRA, JAMNAGAR 2. REEMA SHARMA UG STUDENT PIA	MNAGEMENT OF NEUROISCHEMIC ULCER IN GERIATRIC PATIENT -A CASE REPORT LEECH APPLICATION: PAIN MANAGEMENT OPTION IN OA OF KNEE JOINT IN GERIATRIC PATIENT – A SINGLE CASE REPORT SCOPE OF SHALYA TANTRA IN UROLOGY
7	DR PANDIT SHIV SHARMA MEMORIAL	1.DR RABIYA SHAIKH ASSISTANT PROF., BHARGAV AYURVED COLLEGE	ROLE OF APAMARGA KSHARA IN THE MANAGEMENT OF BHAGANDARA WITH RESPECT TO LOW ANAL FISTULA IN THE
		2. DR SNEHAL SONANI PhD SCHOLAR, ITRA, JAMNAGAR	GERIATRIC AGE GROUP A CASE REPORT – LEECH THERAPY IN POST DIABETIC ATHEROSCLEROSIS

8	DR R B GOGATE MEMORIAL	1.DR EKTA PATEL ASSISTANT PROF., PIA, VADODARA 2.SHUBHANGI BADOLE ASSOCIATE PROF., YMT COLLEGE, MUMBAI	CLINICAL EFFICACY OF AGNIKARMA BY PANCHADHATU SHALAKA IN MANEGEMENT OF CERVICAL SPONDYLOSIS – A SINGLE CASE STUDY ROLE OF VEDHANOTTAR AGNIKARMA IN GRUDHRASI – A CASE REPORT

INDEX

A CLINICAL STUDY ON PAATALADI KASHAYA PAAN IN THE MANAGEMENT OF VATASTHILA W.S.R TO BENIGN PROSTATIC HYPERPLASIA CASE REPORT

***Dr Amitabh Bachchan Kumar**

*Final Year PG Scholar, Department Of Shalya Tantra

****Dr Vivekanand Kullolli**
**Guide Professor, Department Of Shalya Tantra.
Parul,Institute of Ayurved, Parul University

Abstract

Benign prostatic hyperplasia is common in older male.it occurs after the age of 40years old. Benign prostatic hyperplasia includes irritation and voiding symptoms like urgency of micturition increase frequency of micturition, hesitancy of micturition, Dribbling of micturition,nocturia,weak stream,incomplete voiding of urine. It is correlated with Mutraghata in Ayurveda.

In this case repot 75 years old male patient was presented with complaint if increase frequency of micturition,Hesitency ,urgency and dribbling of micturition since 5-6 years.

Diagnosis is done with help of Digital rectl examination ,ultrasound of abdomen and pelvis(for prostate size,pre and post voiding urine) and uroflometry.pt was treated with paataladi Kashaya 48ml BD before food for 28 days by orally(P/O). Treatment showed relief in IPSS and subjective and objective assessment .

This case report demonstrate that Benign proststic hyperplasia is managed with Paataladi Kashaya paan

Keywords- Paataladi Kashaya, Benign prostatic hyperplasia, Mutraghata.

Introduction

Benign prostatic hyperplasia is also called BPE (Benign prostate enlargement). Benign prostatic hyperplasia is more common symptoms like frequency micturition, urgency, nocturia, weak stream, intermittency, straining, straining. Enlarged prostate causes narrowing of urethral passage, and patient micturate with difficulty and emptying of bladder is not completed.pt daily routine is hampers .In modern medicine the conservative management is very costly and it has some side effects. Surgical removal is primary approach to Benign prostatic hyperplasia. But if surgery is performed , there may be risk of complications. Considering complications like reccurence, retrograde ejaculation, hemorrhage, & cost of surgery, so need of society to evaluate an alternative option for this senile disease. In Ayurveda Acharya sushruta has told there are 12 types of Mutraghata, one of them is Vatashthila .general treatment of mutraghata is includes Kashaya paan also.For the above reason and treatment indication his topic is taken for case study.

Aims and objectives

To study the effect of paataladi Kashaya paan in the management of vatashthila w.s.r.

to Benign prostatic hyperplasia.

Corresponding Author

Dr.vivekanand kullolli department of shalya tantra

Parul Institute of Ayurveda limda Vadodara

Gujarat India 391

Email.id..

Place of work

Clinical study done at Parul Ayurvedic hospital

Case Report

A 75 year old male came at OPD of shalya tantra at PAH ,presenting complaint since 5-6 years. **C/O-**

- Increase frequency of micturition
- Urgency of micturition
- Hesitancy of micturition
- Dribbling of micturition

Present illness

Pt was apparently normal before 5 years ,he developed gradually frequency of micturition , urgency ,hesitancy and dribbling micturition. He took some medication from modern doctor ,got some relief again same complaining ,then he came to our hospital for further investigation and management.

Past history

No h/o DM Type2 & HTN **On**

examination

- General condition was moderate
- Pt afebrile
- Guit –normal
- Pallor –absent
- Icterus- absent
- Cyanosis- absent
- Clubbing-absent
- Oedema-absent
- Lymph nodes –not palpable

VITAL

BP 140/90mmHg

Pulse 78/minuts

Temp. Afebrile

Spo2 98%

Systemic examination

CNS –Conscious and oriented

CVS –S1$S2 heared normal ,no added sound

RS –B/L AE+,NO Added sound

P/A – soft, BS+, No organomegally, No tender. **Ashtavidh pariksha**

- NADI – 78/min
- MALA -Vivandha
- MUTRA - Ashamyaka
- JIHWA - Nirama
- DRUKA -Samyak
- SHABDA -Samyak
- SPARSHA -Anushna
- AKRUTI –Madhayam

LOCAL EXAMINATION

External Urethral meatus- normal P/R Digital- prostatomegaly, non tender, oval,free from mucosa,

INVESTIGATION

- CBC –HB –14gm/dl
- RBS-107mg/dl
- SR.CREATININE-1.3mg/dl
- BLOOD UREA-20mg/dl
- URINE R/M- wnl
- UROFLOMETRY- PVR 127ml
- USG- 99GMS

DIAGNOSIS

The condition was diagnosed as a benign prostatic hyperplasia(Vatasthila). **Materials and Methods**

- Drug- Paataladi Kashaya
- Dose- 48ml BD Before food
- Kashaya paan daily for 28 days
- Duration of study 28 days
- Follow- weekly for 4 wks
- F/U after 15days completion of medication.
- How t0 make decocation: take 24gm yawkuta chrna + (16th part water) 384water and reduced 1/8 th part = 48ml

Criteria for assessment of therapy Subjective Criteria

IPSS	Not at all		Less than 1 time in 5 / Less than half the ti	About half the ti	More than half the time	Almost always	) BT	) AT
Incomplete emptying Over the past month, how often have you had a sensation of not emptying your bladder completely after you finish urinating?	0	1	2	3	4	5		
Frequency Over the past month, how often have you had to urinate again less than two hours after you finished urinating?	0	1	2	3	4	5		
Intermittency Over the past month, how often have you found you stopped and started again several times when you urinated?	0	1	2	3	4	5		

Urgency Over the last month, how difficult have you found it to postpone urination?	0	1	2	3	4	5		
Weak stream Over the past month, how often have you had a weak urinary stream?	0	1	2	3	4	5		
Straining Over the past month, how often have you had to push or strain to begin urination?	0	1	2	3	4	5		
Nocturia Over the past month, many times did you most typically get up to urinate from the time you went to bed until the time you got up in the morning?	0	1	2	3	4	5		
Total IPSS score 1-7 mild, 8-19 moderate, 20-35 severe.								

Objective criteria

USG with pelvis before and after treatment are observed for

1. weight of prostate
2. post voidal residual volume

Results Table 2: IPSS

Symptoms		**1st day**	**7nd days**	**14th day**	**21th day**	**28days**	**15days after treatment**
1	Frequency	5	5	4	4	3	2
2	Urgency	5	4	3	2	2	1
3	Intermittency	2	2	2	1	1	0
4	Weak stream	4	3	3	2	1	1
5	Nocturia	0	0	0	0	0	0
6	Straining	0	0	0	0	0	0
7	Incomplete emptying of bladder	0	0	0	0	0	0
	Total IPSS Score	16	14	12	09	07	04

Table 3 objective criteria

Sr.no.	USG Findings	0^{th} day(Before treatment)	28 days(After treatment)
1	Weight of prostste	99 gm	
2	Post voidal urine	127 ml	

Discussion

Paataladi Kashaya reduce the weight of proatate due to shothahar and lekhana karma

DIFFERENT DRESSINGS MATERIALS USED IN HEALING OF DUSHTA VRANA (CHRONIC WOUNDS) WITH SPECIAL REFERENCE TO ASTANGA HRIDAYA

***Dr Ankit Pandey**

*Final Yearv PG Scholar, Department Of Shalyatantra

****Dr Shailesh Jaiswal**

**(Associate Professor Department Of Shalyatantra

Parul,Institute Of Ayurved, Parul University)

Abstract

There are so many dressing materials mentioned in our classics which are having their own importance in different phases of healing chronic wounds. ASTANGA HRIDAYA contains so many simple techniques are mentioned which are usually being used since thousands of years from Vedic era as Nimb kalka and honey, Mriddarashrunga, Triphala kashaya and different drugs for Shodhana and Ropana property. Which are very useful due to lacking of dressing materials in modern era and their side effects. Slough removal and non healing ulcers are the biggest problem in modern era.dressing materials related to dushta Vrana will demonstrated here and their use in different conditions.

Keywords- Dushta vrana,shodhana,ropana,healing of infected wounds, non healing ulcers.

Introduction

The wound is having great importance in the medical science from ancient time only. That‘s why different classical textbooks has been explained about its types and source from ancient days till now .our classical shastra the sushrut samhita and astanga hridaya has explained different types of these wound and their management critically in his book .they also claimed that every surgeon should have the capability of understanding and healing the different types of wounds it may be traumatically or surgically created by himself as well as their line of management including different types of the dressing materials and instruments.

In astanga hridaya there are so many easy techniques and typical drugs mentioned for both dressing purpose and irrigations,they includes ghrita, kalka(pastes), (decoctions).because of their importance in dressing and the healing and desloughing agents they will be described here.

Corresponding Author:
DR.Shailesh Jaiswal
Assistant Professor, Department of shalyatantra,
Parul Institute of Ayurveda,

Parul University, Vadodara, Gujarat. India
Email Id: shailesh.skp61@gmail.com

A.H Annaswarupvigayaniya adhyay :-

Ksharah :-all kshar are tikshna, ushna, kriminashaka, utssanna mamsa, chronic wound and laghu.Acharaya has clearly explained that they act as vranashodhaka by removing the

pus from the pakva vranashopha (ripen swellings). Both paniya(liquid) and pratisaraniya(paste) kshara can be used in washing the slough tissue and on hard surface of wound application of kshara paste is preferred. Although healing of wound is a natural process yet it is inhibited by various factors and lead into DushtaVrana. Acharya Sushruta has clearly mentioned that wound in a person who are not disciplined or treated by ignored surgeon lead to vitiation of Doshas and produce complications like Dushta Vrana. Dushta Vrana requires specific treatment like Shodhana, Chhedana, Bhedana,
Ropana, balancing of vitiated Doshas etc. for its healing. All these qualities are present in Pratisaraniya Kshara. It balances vitiated Doshas due to its Tridoshnashak properties as it is made up of combination of many drugs. Chhedana and Bhedana properties are due to Prabhava. Since it is predominantly made up of Agneya (firy nature) drugs, so causes Pachana, Vilyana, Shoshana, Lekhana, Kriminashana, Shodhana and Ropana of DushtaVrana14.It also causes wound debridement due to its Ksharana quality. Thus due to all above qualities, Pratisaraniya Kshara cures Dushta Vrana and produce relief in sign and symptoms of DushtaVrana without producing any adverse effect.

This does chemical debridement and increases healing process by reducing the infectious overload which promotes wound healing.

Triphla1 :- both triphala Kashaya and paste is used for wound management. It does debridement and healing also used in kustha rogas.

Tikta rasa2:- in Rasabhediya adhayaya acharaya mentiones in description of the tikta rasa that it decreases taste bt it does amapachana and removes kleda(excess secretions) in this way it performs vrana shodhaka action which does Twak Maamsa Sthireekarana and Lekhan & It help in increasing tensile strength of wound and removal of slough by stimulat

Katu rasa3:- katu rasa specially used in dushta vrana decreases secretions and provides softness to hard tissues and does shrotovivarana(opens channels) which increases nourishments of that localize area. It also reduces kleda and slough tissues which increases healing.

Kashaya rasa4:- it pacifies pitta and kapha wich decreases secretions and removes excess moisture, it also performs blood purification. Acharaya specially mentioned that kashayarasa pradhana dravyas lepan on pakva vrana sopha performs peedana(squeezing action) and increase tension on local surrounding tissue which pushes out the inside pus and increases healing processes.

Aragwadadi gana5:- special indication which is widely used in day to day practice is this gana well known for vrana shodhaka. Aragvadhadi Gana, most of the drugs during in-vitro studies are effective against S. aureus, P. auregenosa and E. coli organisms. Evaluation of particular single herb in vitro antimicrobial activity reveals that most of drugs are possessing strong antibacterial activity against responsible pathogens. In combinations

ingredients mixed and create a new molecular structure that is having strong affinity to reduce growth of pathogens. Thus it can be said that the combination of these drugs in different form definitely helpful in the management of Dushtavrana (infected wounds). A synergistic antimicrobial effect leads to early disinfection of wound area. On the basis of this in-vitro or pharmacological evidence based studies which support the classical principal of shodhana and ropana karma of this Gana and further need to be tried in the human being to treat the wounds.

Asanadi gana6:-this is indicated specially in krimi containing contaminated wounds where larwa and maggots are presents.maggots containing management is done with these drugs because of its harmful action on them Asanadi gana.

Varunadi gana7:-Vanina,artagala, Shigru, Madhu-Shigru, Tarkari, Mesha-Shringi, Putika, Naktamala, Morata, Agni-mantha,Sairiyaka, Vimvi, Vasuka, Vasira, Citraka, Shatavari, Vilva, Ajashringi, Darbha, Vrihati are the main drugs.special indication of this gana is mentioned in the vidradhi(depressed opening containing sinuses and wounds). Because of its kapha hara and vatahara activity which reduces the pooya and increases Healing rate

Arkadi gana8:-Arka, alarka, nagadanti, visalya, bharngi, vriscikali, prakriya, pratyapuspi, pitataila, udakirya,sveta and tapasa vrksa specially mentioned for krimirogas and dushta vrana sodhanarth. This act as kapha meds and vishahara bt special indication is for shodhanartha of vrana.

Surasadi gana9:- sursa, phanijja, kalamala, vidanga, kharabusa, vrsakarni. Katphala, kasamarda, ksavaka, sarasi, bharangi, kramuka, kakmachi, visamusti, bhutrna, bhutakeshi, krimij roga and vrana sodhaka is main indication for wounds.

Priyangvadi gana & Ambasthadi gana10&11 :-prayangu pushpa, anjanadvya, Padma, padmaraja, yojanavalli, Ananta, mocharasa,samanga, punnaga, sita, ambastha, madhuka, namaskari, nandivriksha, palasha, kachhura, rodhra, dhataki, bilvapesika, katvanga, kamalaraja,both are asthisandhanak and pravara vranaropaka.this groups of aushadhi usually removes slough tissue by scrapping them and improves the circulation bye shodhana which improves wound healing.

Naygrodhadi gana12:-nyagrodha, pippl, sadaphala, rodhra, jambu, arjuna, somavalka, plaksha, amra, etc vrana shodhhaka and ropaka.

Eladi gana13:- ela dvya, turushka, kustha, phalini, mamsi, jala, choraka, patra tagara, sukti, vyaghrinakha, agaru, kumkuma, guggulu,punnaga etc does vrana prasadana. Kandu kotha nashaka.

All these dravyas mentioned in different ganas should be used in different form decoction, powder,oil,lotion etc as per avalibility and use.

Tiktaka ghrita & mahatiktaka ghrita:- Saptacchada (Saptaparna) Prativisha (Ativisha) Aconitum .(Aragvadha) .Tiktarohini (Katuka) .Patha .Musta Cyperus rotundus.Ushira .Haritaki.Bibhitaka.Amalaki.Patola .(Neem).Parpataka .(Parpata) .Dhanvayasa .Chandana (sveta chandana).Pippali.Gajapippali .Padmaka .Haridra Haldi.Daruharidra Daruhaldi. Vaca .Vishala (rakta indravaruni).Satavari.Sveta Sariva.Krishna Sariva.Vatsaka bija (Kutaja),Vasa.Murva .Amrita .Kiratatikta .Yashtyahvaya .Trayamana ,Amrita phala rasa indication in (nadi vrana)sinus, vidradhi(abscess), sotha(swellings).

Vajraka taila14:- indicated in in non healing wounds, infected wound with pus discharge,

sinuses and

abscess. Saptaparna,Shirisha - ,Ashwamara ,Arka - ,Malati -,Chitraka ,AsphotaNimba ,Karanja -,Sarshapa ,Prapunnada ,Haritaki ,Vibhitaki-,Amalaki ,Janthughna,Shunti ,Maricha,Pippali ,Haridra ,Daruharidra -,Taila - ,Mutra go

Vrana dhoopana15:- Neemba patraVacha, Hingu Saindhav lavana), Sarpi used for this procedure to reduce itching,foul smelling, secretions This should be performe twice in a day morning and evening for seven days without any break. the process of dhoopana the active constituents of Nimbapatradi i.e. margosine, a bitter alkaloid and sulphur get released and dispersed. Due to these constituents, dhooma may inhibit the growth of bacteria or kill them. Nimbapatradi dhooma show karshan, lekhan, Kledshodhan karma on wound. The Nimbapatradi dhooma acts on bacterial cell wall because of above gunas and karmas. It probably disturbs the mechanism of metabolism of bacterial cell by acting on their cell organelles or it may disturb the specific environment of bacteria in which they grow.

Nimbadi ghrita 16:- Nimba ,Darvi ,Madhuk ,Madhu, Cow ghee, Nimbadi ghrit acts as krimighna as it includes nimba, darvi which have tikta kashay ras , katu Vipak, and laghu Ruksha guna.

Madhu is tridoshashamak, due to its Madhur rasa kashay uparasa, Ruksha guna, sukshma marganusari. Pain in dushta vrana is due to vitiated vata dosha.

Madhur rasa of madhu pacifies vitiated vata dosha thus reduces pain. It pacifies pitta dosha due to its Madhur rasa and sheeta guna. Kapha is taken care by its kashay rasa and Ruksha guna. It acts with its Lekhan karma (desloughing action), kashay rasa and Ruksha guna.

Yashtimadhu is rujahar, ushna viryatmak, and its vatahar action helps to reduce the pain at wound site.Laghu, Ruksha guna of nimba darvi help in reducing pus discharge.

Anti adherence effect due to kavalika and ropan property of yashtimadhu and madhu enhances the production of healthy granulation tissue.Madhur rasa of madhu , ghrita gives nutrition to the tissue which help in granulation tissue formation.

Discussion :-

Wound always follows three phases: Inflammatory, proliferative and remodeling. Granulation, collagen maturation and scar formation. This all process are usually continues in every injury acc to their site and all factors associate with it. . in which shodhana and ropana process gradually going on with each other.Onley dressing provides favourable environment to heal and fastening the process which needed a good dressing materials in different phase of wound healing and the media of dressing materials which are broadly mentioned in ayurvedic classics in forms of different kalpanas as kalka, Kashaya, kwatha, taila,ghrita, rasakriya and so many foermulations are mentioned. Acharaya vagbhatta mentioned this during mentioning all the ganas that one can choose acc to their intelligence select the kalpana(the form of dressing material).in sloch condition decoctions of katu and Kashaya dravyas usually used as in form of triphala Kashaya nagyoradhi Kashaya, nimbadi Kashaya which desloughes the wound and made it less contaminated and increases healing chance after that taila and ghrita or kalka churna can be used. Here the one advance technique as chemical debridement is there in which different solutions or ointments are using in now days as H2O2 and savlon or debridac ointments in place of them we can use our Ksharas of different dravyas either in form of paste(pratisarniya) or forirrigation purpose (paniya) which works in same way and their additional effect is that they promotes healing naturally

Conclusion:-

From above discussion we can conclude that there are so many way to treat infected wounds those chronic ulcers which are untreatable or having less effect by modern medical science they can be treated by all these formulations as achayaras has already told that we can use those drugs as per our need in different forms eg, churna, kalka, Kashaya, taila, phanta, etc which provides us vaste formulations acoording to the involvement of different dosha prakriti and roga prakriti. As in vata prakriti rogi taila preparations where lekhana and ropana both is needed but in case of the more slough and puti puya conditions we have to give preference to use prakshala and different churnas lepam for shodhanarth. These drugs not onley advised for topical onley they are mentioned to be use for drinking acc to their severity also. **Bibliography:-**

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CUPPING THERAPY TO MANAGE PRIMARY FROZEN SHOULDER IN GERIATRIC PATIENT- A SINGLE CASE REPORT

***Dr.Dikshya Paude**
*Pg Scholar, Department Of Shalyatantra,
Institute Of Teaching And Research In Ayurveda (Ini).
Jamnagar-361008, Gujarat, India.
****Dr.T. S. Dudhamal**
Associate Professor And I/C Hod, Department Of
Shalyatantra, Institute Of Teaching And Research In Ayurveda(Ini)
Jamnagar-361008, Gujarat, India.

ABSTRACT

Frozen shoulder also known as adhesive capsulitis is a progressive disease due to thickening and contracture of the inferior gleno-humeral joint capsule characterised by progressive stiffness with restriction of movement and pain that is generally more severe and disabling. Approximately, 70% of patient with frozen shoulder are women, and 2030% of those affected will have frozen shoulder developed in the opposite shoulder. It is more common in age between 50-60 years and is often associated with medical conditions such as diabetes mellitus and ischemic heart disease etc. A 70-year-old female patient presented with chief complaint of pain at right shoulder and arm since last 1 years. Impaired function of right shoulder since last 6 months. A case was diagnosed as stage I primary frozen shoulder and managed with two sitting of wet cupping therapy with a gap of 15 days along with Dashmoolyadi Kwatha orally two times a day empty stomach. The result was encouraging. The therapy provided marked improvement in pain and stiffness. Pain according to visual analogue scale (VAS) decreased from 4 to 0. Range of abduction increased from 150◦ to 170◦ and internal rotation from 10◦ to 30◦. DASH score (disabilities of arm, shoulder and hand) significantly decreased from 44 to 29. This proves the significant effect of cupping therapy on frozen shoulder by decreasing pain and improving range of motion. This highlights the promising scope of wet cupping therapy which is easy to conduct, less expensive as well as result oriented.

Keywords: Adhesive capsulitis, Dashmoolyadi kwatha, Frozen shoulder, Wet cupping therapy

INTRODUCTION

Frozen shoulder also known as periarthritis or adhesive capsulitis is defined as clinical syndrome characterized by painful restriction of both active and passive shoulder movements due to causes within the shoulder joint or other parts of the body. [ ] They are of two types on the basis of causative factors i.e., primary and secondary. The exact cause is unknown in primary frozen , whereas secondary causes are problems directly related to shoulder such as tendonitis of rotator cuff, fracture and dislocations around the shoulder, bicipital tendonitis, etc. This condition most commonly affects middle-aged group and diabetics in whom shoulder joint degenerative changes are occurring. Other co-morbid conditions include hyperthyroidism, hypothyroidism, hypoadrenalism, Parkinson‘s disease, cardiac disease, pulmonary disease, stroke, and even surgical procedures that do not affect the shoulder such as cardiac surgery, cardiac catheterization, neurosurgery, and radical neck dissection. [ ] Usually, internal rotation is primarily affected in this condition, but in advanced cases there may be complete restriction in glenohumeral movements. [ ] Patient frequently presents with history of trauma affecting shoulder cuff where there may be prolonged inflammatory changes leading to contraction of shoulder joint and thickening of joint capsule resulting to the respective symptoms.

Loss of Bahu Praspandana, Stambha and Shoola at the shoulder joint are the cardinal features of Apabahuka as described in Samhita which can be correlated to frozen shoulder. [ ] The main aim of treatment is to manage pain and stiffness.

Wet cupping therapy (WCT) also known as Hijama therapy is an ancient traditional therapeutic practice which is combination of dry cupping therapy followed by bloodletting. Bloodletting from the area has significant therapeutic effects. WCT helps enhancing the health of the general body clinically and minimize severity of pain with no significant side effects. Looking at its working principle, it can be correlated as Raktamokshana by modified Shringa Yantra.

In this article, a case of stage primary frozen shoulder management through wet cupping therapy along with oral medication Dashmoolyaadi kwatha is presented.

PATIENT INFORMATION:

A 70-year-old female patient presented to the ITRA Hospital, Jamnagar out-patient department with complaints of pain at right shoulder and arm for last 1 year and impaired function of right shoulder since last 6 months. It was gradual on onset, intermittent type dull aching pain increased during night and sleeping on same side. Patient had no any history of diabetes mellitus (DM), hypertension (HTN), ischemic heart disease (IHD), surgical interventions, long term medication, fracture of right upper limb and trauma of right shoulder. Patient was treated with non-steroidal anti-inflammatory drugs (NSAIDs) for 15 days but she had only transient relief from medications and chose this treatment because of the lack of obvious improvement in shoulder range of motion and pain.

CLINICAL FINDINGS

On examination, tenderness was found to be grade II, Visual Analogue Scale (VAS) 4, active internal rotation 10 degrees, abduction 150 degrees while Apley's scratch test severe positive. On general examination, patient was sthenic, afebrile, in a good general health with no nutritional deficiency. Systemic examination was within normal limits. Nervous and musculoskeletal system functions were grossly intact with normal muscle tone, no sensory deficit, no muscle wasting.

DIAGNOSTIC ASSESSMENT

X-ray of the effected shoulder joint revealed no significant changes. On laboratory investigation, routine hematological and biochemistry investigations like hemoglobin (Hb), total white cell count (TC), differential white cell count (DC), fasting blood sugar (FBS), post prandial blood sugar (PPBS) were within normal range except erythrocyte sedimentation rate (ESR) which was found to be 20 mm/hr.

According to patients presenting complaints suspected differential diagnoses were; impingement syndrome, rotator cuff tears, rotator cuff tendinopathy, calcifying supraspinatus tendinitis, osteoarthritis of the glenohumeral joint, osteoarthritis of acromioclavicular joints, rheumatoid arthritis of the shoulder. On the basis of clinical examination, radiological, and laboratory investigations the case was diagnosed as primary frozen shoulder stage I.

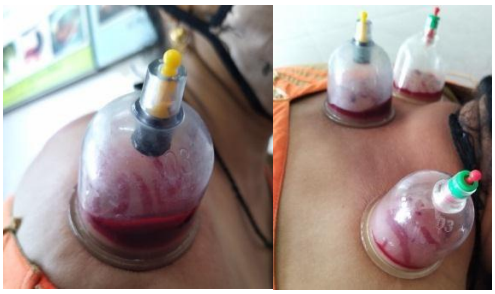
THERAPEUTIC INTERVENTION

Following examination, patient was advised for wet cupping therapy for two sittings with gap of two weeks between each sitting along with oral medication Dashmoolyadi Kwatha. Prior to main procedure, proper counselling was given to patient and informed written consent was taken for carrying out the procedure. Unlike other surgical and para surgical procedure in WCT patient is adviced to take some light foods prior to carrying out the procedure. On sitting or lying position, local Abhyanaga was done with Bala Taila followed by Nadi Swedana. Local part was painted with povidone iodine solution then sterilized modified Shringa Yantra were applied at most tender point for 3- 4 minutes with suction gun, so that subcutaneous blood collection gets established there. With the help of disposable surgical needle no. 24, shallow pricks, less than 0.5-10 mm deep were made at the site for small amount of blood to escape out and the Shringa Yantra were immediately applied again for about 10-15 minutes or till the stoppage of complete oozing. After

cessation of bleeding, Shringa Yantra were removed and the site was cleaned properly with normal saline followed by dusting with the Haridra Churna.

Oral medication: Dashmoolyaaadi Kwatha 100ml orally two times a day empty stomach for duration of one month.

Images:



FOLLOW UP AND OUTCOMES

Patient showed sign of relief from the first sitting itself. After second sitting DASH (Disabilities of Arm, Shoulder and Hand) score was significantly decreased. Pain according to visual analogue scale (VAS) decreased from 4 to 0. Range of abduction increased from 150◦ to 170◦ and internal rotation from 10◦ to 30◦ (Table no.1). ESR value also decreased from 20 mm to 11 mm.

Table no 1: Degree of improvement of the right shoulder range of motion and pain with wet cupping therapy

Sr. no.	Clinical examination	Findings	
		BT	AT
1	Pain (VAS)	4	0
2	Abduction	150°	170°
3	Flexion	165°	165°
4	Extension	60°	60°
5	Internal rotation	10°	30°
6	External rotation	100°	100°
7	DASH score	44	29

(DASH= Disabilities of the Arm, Shoulder and Hand, BT=before treatment, AT=after treatment)

DISCUSSION

There are different types of cupping which include wet cupping, flash cupping, medicinal cupping, retained cupping, moving cupping, and needle cupping. It is apparent from the case that wet cupping therapy plays a significant role in management of frozen

shoulder. Cupping causes the uplifting of skin created by vacuum cups which causes retention of local fluids in that specified area. That fluid helps in dilution of inflammatory fluids, with possible relief of muscle tension and local redistribution of nociceptive mediators. After removal of cups, the immediate decrease in negative pressure causes increased perfusion in that area. The perfusion of affected area with fresh oxygenated blood leads to improved healing at the site of pathology. The negative pressure also helps in breaking tissue adhesions, if any.[ ] Unlike bloodletting from veins, wet cupping allows blood to be drawn from capillaries, which may include lymph fluids that modify its concentration and helps eliminating waste materials, toxins and oxidants from blood.[ ] The procedure was found to produce higher oxygen saturation, eliminate lactate from subcutaneous tissues, and remove blood that contained higher levels of MDA (malondialdehyde) and nitric oxide.[ ]

Dashmoola is a polyherbal drug formulation most commonly prescribed in painful and inflammatory condition. It is Sothahara (anti-inflammatory), Shoolahara (analgesic). It is Tridoshashaamaka majorly Vatashamaka.[ ] Dashmoolyaadi Kwatha consists of Dashmoola Yavakut, Balamoola and Maasha.[ ] Masha (Phaseolus mungo Linn.) being one of the ingredients of Dashmoolyaadi Kwatha may play major role in nourishing the joint capsule and inhibit the further degeneration as it has properties like Vatashamaka, Tarpana (nourishing), Snigdha (unctuousness) etc. Atibala (Abutilon indicum Linn.) another potential ingredient has Balya (strength) and Snigdha property which too aids in proving nourishment and strength to joint capsule.

There are limited studies available on working mechanism, protocol and efficacy of wet cupping therapy. More studies in large sample are necessary to conduct for further comprehensiveness and standardization of therapy.

A single case report concluded that wet cupping therapy may be considered as result oriented, easy and one of the best, safe and reliable way for treatment of patient with primary stage I frozen shoulder.

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SCOPE OF SHALYA TANTRA IN GERIATRIC WOUND CARE IN DIABETIC PATIENTS - ACCORDING TO SOME ALLOPATHIC CONCEPT

***Dr. Hardik Jyani**

**PG Scholar;

Roganidan Department , Parul Institute Of Ayurveda

Parul University. Baroda

INTRODUCTION

- Ageing is a fundamental process that affects all our systems and tissues. The rate and magnitude of change in each system may differ person to person, but total body decline is an inevitable part of life for everyone.
- Approximately half of the decline in physiological functions with age has a genetic basis and the reminder of age related change is the consequences of lifestyle, primarily physical inactivity that can account for the other half of the decline with age.
- Coupling sedentary lifestyle with inadequate nutrient intake, excess body weight and variables such as smoking and excessive alcohol intake, the biological decline is more precipitous and greater in magnitude.

DISCUSSION AND MATERIALS METHOD

- It is a common clinical observation that wound healing is defective in diabetes mellitus Diabetic foot wounds remain open for prolonged periods. The ulcer develops a rim of raised epithelium with some pale granulation tissue in the center. The wound infection spreads inside the foot and all along plantar fascial planes. Wound healing occurs as a cellular response to injury and involves activation of keratinocytes, fibroblasts, endothelial cells, macrophages, and platelets. The major factors in the genesis of diabetic foot syndrome also contribute to the defective healing. They are atherosclerosis, renal failure, neuropathy and the micro circulatory failure. There are cellular, metabolic, and biochemical factors that have been found to contribute to altered tissue repair in diabetes mellitus. Many growth factors and cytokines released by these cell types are needed to coordinate and maintain healing. Ischaemia is the major factor that causes insufficient oxygen delivery to the wound and impairs healing. Uraemia and pedal oedema impairs

healing in diabetes. The basement membrane thickening may also make leukocyte migration difficult.

- Over 100 known physiologic factors contribute to wound healing deficiencies.
- They include:
- Decreased or impaired growth factor production.
- Decreased or impaired angiogenic response.
- Decreased or impaired macrophage function. Decreased or impaired collagen accumulation.
- Decreased or impaired epidermal barrier function.
- Decreased or impaired quantity of granulation tissue.
- Decreased or impaired keratinocyte and fibroblast. migration and proliferation. Number of epidermal nerves. Poor expression of matrixmetalloproteinases and their inhibitors.
- HyperglycAemia also leads to the production of pathologic by-products. Hyperglycaemia leads to "advanced glycosylation end products"(AGES), which are large aggregates of aldoses covalently bound to reactive amino groups which impairs wound repair and healing. AGEs may also lead to collagen cross-linking and inhibit normal collagen degradation. There are distinctive phases in wound healing."
- The injury phase The inflammatory phase o The proliferative, phase
- Phase of complete epithelialization.
- Chronic wounds with lack of progression to heal occurs due to arrested phase in the sequence of normal healing. The wound fails to close.
- The diabetic foot ulcer is a chronic wound. Hyperglycaemia may be toxic to fibroblasts and neutrophils, resulting in greater susceptibility to infection.Cytokines and growth factors play a very important role in the process of acute wound healing. It is an area of future research with great potential to identify novel
- molecular level therapies.
- The typical diabetic wound is a sequel of tissue necrosis due to sepsis. The foot ulcer is usually due to neuro-or neuroischaemic changes in the foot which are fore runner of sepsis. In acute conditions drainage of pus or fasciotomy may be required. The infected wound needs extensive, repetitive debridement. Good limb elevations

and rest will heal majority of the wounds. In some chronic leg ulcer occurs. Many treatment modalities are described.

- The famous saying that The foot ulcers in diabetics are not non healing ulcers but they are maltreated ulcers' is true. Local applications must be safe for the wound. Most of the antiseptic solutions are dangerous to the wound. Wound management is divided in to four types:

- Protective dressing Trophic ulcer with sepsis
- Acute septic wound
- Indolent non healing wound Neuro ischaemic foot Novel therapies.

•A moist wound environment is important for wound healing to occur. There is, however, limited evidence that any specific dressing type enhances velocity of healing of chronic diabetic wounds. Dressings should prevent further trauma, minimize the risk of infection, and optimize the wound environment. Factors guiding dressing selection include wound type, presence of exudate, surrounding skin conditions, likelihood of reinjury, and cost. Characteristics of available dressings include those designed to achieve absorption, hydration, conformability, and other special needs. Dressings do not replace debridement or off-loading.

o Not take up too much space.

o Provides a moist wound healing environment o Be capable of absorbing large quantities of exudates.

o Should not block the drainage of the wound. Be easily lifted or removed for regular inspection

• without adversely affecting the wound. Whilst simple gauze dressings are often employed by clinicians, there are newer forms of dressing available. Dressing selection should promote a moist wound environment that minimizes trauma and risk of infection. Modern, moist dressings used for diabetic foot ulcers include foams, calcium alginates, hydrogels, hydrocolloids, and adhesive membranes. Alginate, foam, hydrogel and hydrocolloid dressings have been designed to absorb wound exudate and control the level of wound hydration.

o Protective dressing o Trophic ulcer with sepsis.

• Debridement of callus can significantly reduce pressure at the callus site by approximately 30%. It eliminates sepsis under the callus which is the fore runner of foot loss.

o Acute septic wound

• Management of acute septic wound is as per the general surgical principles. Debridement and Drainage are the corner stones in the treatment.

• **DECREASE IN WOUND BACTERIAL CONTAMINATION**

• Topical antiseptics are used to reduce the microbial load in both intact skin and in wounds. Antiseptics have been used in preference to topical antibiotics because of concerns about the development of bacterial resistance. However, the cytotoxic effects of these agents on the host's dermal and epidermal cells may affect the wound healing process. A quantitative measure of bacterial load is shown to be correlated with rate of diabetic foot ulcer healing. There are many explanations as to how bacteria can impair wound healing. Superoxidized solutions may represent an alternative to the currently available antiseptics for the disinfection of skin and wounds. SOS has not been shown to induce cytotoxicity in fibroblast cultures in vitro and does not interfere with the wound healing process.

• **DRAINAGE**

• Adequate drainage of purulent fluid and reduction of tissue edema are essential in the prompt healing of wound. Vacuum assisted drainage is a useful device in promoting good wound drainage. In the diabetic foot, the application of a continuous negative pressure of 125 mmHg to the wound has been found useful in promoting healing (KCI Medical Ltd, 2005). The VAC therapy unit is used to treat postoperative wounds after minor amputations or surgical debridement. A literature search identified a pilot trial undertaken by McCallon et all dedicated to the post-surgical diabetic foot; a large. randomised, controlled trial undertaken by Armstrong. et al in 2005 to determine whether VAC is clinically efficacious in treating open amputation wounds of the diabetic foot. The studies demonstrated an increase in rate of wound healing, a reduction in the time to complete wound closure and a trend towards a reduction in the need for further surgery..

• **DEBRIDEMENT**

• Common methods of debridement for diabetic foot ulcers include: o Mechanical irrigation with saline solution o Use of autolytic agents • Biological (Larval therapy)

• In the diabetic foot wound MRSA colonization is very common (40% of S. aureus isolates were MRSA). In a preliminary study by Frank L. Bowling, the potential of larval therapy was found to eliminate MRSA colonization of diabetic foot ulcers. The removal of nonviable, contaminated and infected tissue from the wound area has been shown to increase the rate of healing of diabetic foot ulcers. These observations were confirmed in a prospective trial where sharp debridement may be associated with better outcomes in patients with diabetic foot ulcers. Smith conducted a systematic review to determine the effectiveness of debridement methods for diabetic foot ulcers. Five randomized controlled

trials (RCT's) were identified: three involved the use of hydrogels. and two involved the use of sharp debridement. The results suggest that hydrogels were significantly more. effective than gauze or standard care in healing diabetic foot ulcers. Saap and Falanga developed a debridement performance index to assess the adequacy and performance of any surgical debridement undertaken. The Index was shown to be an independent predictor of wound closure making it potentially a useful predictive tool for determining ulcer healing outcome following debridement. Debridement of callus can significantly reduce pressure at the callus site by approximately 30%.

•INDOLENT NONHEALING WOUND

- Management of chronic indolent ulcer is difficult. Many agents that promote wound healing are used. They are

- collagen has been found to hasten healing and reduction of ulcer area. But two new studies evaluated the impact of a collagen wound dressing on the healing or reduction in wound area of foot ulcers in people with diabetes. No statistically significant differences were found in wound area reduction or in complete healing although multivariate analysis indicated that the overall treatment effect on ulcer areas was significantly in favour of the collagen-alginate dressing compared with the gauze dressing, when ulcer duration was included in the analysis. Thus collagen dressings do not appear to promote better ulcer healing than saline-moistened dressings

•2. Phenytoin Powder

- Phenytoin has been used topically for many years to enhance the healing of chronic wounds .Its wound healing promoting effect has been attributed to many mechanisms, including increasing fibroblast proliferation, inhibiting collagenase activity, promoting collagen disposition, enhancing granulation tissue formation, decreasing bacterial contamination, reducing wound exudate formation, and upregulating growth-factor receptors .

- Chronic diabetic foot ulcers remain difficult to manage. Topical application of phenytoin has been used successfully in the management of diabetic foot ulcers.

- conducted a prospective matched case-control study, 100 patients comparing daily topical phenytoin powder with a dry sterile occlusive dressing, in a total of 100 patients (50 in each group). Patients' ulcers were debrided at baseline, and antibiotics were provided as necessary. Groups were matched for age, sex, ulcer area and depth and chronicity at baseline, although there is a non significant trend to small ulcer size in the phenytoin group. Ulcers with gross cellulitis, deep slough, ischaemic gangrene or tropic ulcers were excluded. Ulcers were assessed using an impression scale A-E, where A denotes deterioration and E denotes complete healing. At 35 days, ulcer healing was

significantly better with phenytoin on the impression scale. The mean tine to complete healing in the phenytoin powder group was 21 days compared to 45 days in the occlusive dressing arm ($p<0.05$). The overall percentage reduction in ulcer area was also greater in the phenytoin group ($p<0.005$).

•3. Silver Dressing

• Silver has been used for centuries. Originally, silver vessels were used to preserve water, and its use for medicinal purposes is documented from 750 AD. The first scientific papers describing the medical use of silver have been attributed to Credé. In 1965, Moyer were the first to report the antibacterial activity of compresses soaked with 0.5% silver nitrate applied to extensive burns. The efficacy of silver nitrate against Pseudomonas aeruginosa was viewed as an important benefit because this micro organism was considered a primary cause of death in patients with extensive burn wounds. There are now a number of silver-based dressings on the market that aim to improve healing primarily by controlling the wound bio-burden.

•4. Living Human Skin Equivalent

• Living human skin equivalents (HSES) which are produced by using tissueengineering techniques, have been successful in treating chronic wounds, such as venous ulcers. Although their precise mode of action is not known, it is believed that they act by both filling the wound with extracellular matrix and inducing the expression of growth factors and cytokines that contribute to wound healing. Like human skin, graftskin has both an upper epidermal and a lower dermal layer and contains human skin cells. The dermal layer is formed by human fibroblasts (dermal cells), which organize the provided structural protein and produce additional matrix proteins. The epidermal layer is formed by prompting human keratinocytes (epidermal cells) first to multiply and then to differentiate to replicate the architecture of the human epidermis. Unlike human skin, graftskin does not contain structures such as blood vessels, hair follicles, or sweat glands or other cell types such as Langerhans' cells, melanocytes, macrophages, or lymphocytes. Graftskin has been shown to produce all cytokines and growth factors that are produced by the normal skin during the healing process.

• Graftskin has been shown in previous studies not to elicit an immunological response from the host, and this finding was confirmed in this study. Graftskin was also not associated with any other adverse effects, such as wound infection and cellulitis, when compared with the control group. Graftskin application carries a considerable cost and should therefore be reserved for chronic foot ulcers that have failed to respond to the currently available standard care

• **5Growth Factors**

• Role of Growth Factors Growth factors have been found to accelerate tissue repair. Various types of growth factors are used in healing the chronic indolent diabetic foot ulcers. Many are in the process of trials. The selection of cases and protocol are well defined. The clinical trials testing the efficacy of growth factors have been relatively well designed. Growth factors used are derived from the platelets, bioengineered tissues or available by recombinant techniques. Commercially available growth factors are useful in problem wounds they are PASTO but they are quite expensive.

• The first trials focused on platelet releasates. The patient's own platelets are collected and stimulated to release proteins from their alpha granules. The alpha granules contain numerous growth factors and these growth factors accelerate tissue repair. Another "natural" growin source of growth factors is from cultured cells and bioengineered tissues. The first cells be tested were cultured keratinocytes. They are found to be useful in the treatment of all sorts of chronic dermal wounds. Mansbridge et al described the use of fibroblasts cultured in 'dermal' matrices for the treatment of chronic diabetic foot ulcers.

• Recombinant growth factors are tried and found useful in diabetic foot ulcers. Though more than ten growth factors are described Regranex is widely used. Regranex is recombinant human platelet-derived growth factor (rhPDGF-BB) and is approved for the treatment of chronic diabetic wounds. Several well-designed, prospective, randomized trials have been performed and suggest that Regranex is effective. Steed et al published the first study to show that Regranex significantly improved healing in diabetic ulcers. PDGF stimulates and recruits macrophages, neutrophils, and fibroblasts; stimulates angiogenesis and stimulates granulation tissue formation, wound contraction, and wound remodeling.

• Becaplermin gel is used in non ischaemic, clean wounds. It is applied once daily. With appropriate wound. care, becaplermin gel has been shown to increase the incidence of complete wound closure (50% versus 35% for placebo) and decrease the time to complete wound closure (86 versus 127 days). Clinical usefulness of adjunctive G-CSF treatment is equivocal but is associated with a reduced rate of amputations. Hence using G-CSF should be considered, especially in patients with limb threatening infections.

• Proteases play a critical role in many of the physiologic processes of wound repair. However, if their activity becomes uncontrolled proteases can mediate devastating tissue damage and produce chronic non healing wound. Proteases in wound fluid have deleterious effects on granulation tissue, growth factors and cytokines. Therefore, an effective therapeutic approach for chronic wounds would be to modify this proteolytic imbalance and reduce the activities of neutrophil-derived elastase, plasmin, and matrix metalloproteinase. This can promote granulation tissue formation and stimulates wound! repair.

- Many commercially available growth factors have been studied. They have variable wound healing potential. It is always worth the trial but cost considerations hinder their routine use. Advances in Molecular biology and bio technology are sure to get us many more molecules that significantly help wound healing.

- **Novel Therapies-**

- There are no randomized controlled trials supporting the use of hyperbaric oxygen therapy to treat neuropathic diabetic foot wounds. New technologies include growth factors, living skin equivalents, electrical stimulation, cold laser, and heat. Recombinant platelet-derived growth factor for the topical treatment of diabetic foot ulcers shows a modest benefit if used with adequate off-loading, debridement, and control of infection.

- A recurrent foot wound is defined as any tissue breakdown at the same site as the original ulcer that occurs >30 days from the time of original healing. Any new tissue breakdown within 30 days of healing at the same site is considered part of the original episode.

- **CONCLUSION**

Wound healing is most important challenge in today‘s scenario in medico science in the diabetic patients. Here above given discussion which very important play role in the management. As well as in other science like Ayurveda, Homeopathic, Unani etc. Which have also given knowledge of these wound healing. So wound healing in geriatric is very important for today.

- **REFERENCE**

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SCOPE OF SHALYA TANTRA IN PARASURGICAL PROCEDURE IN GERIATRICS

***Dr. Ishan Parashar**
PG Scholar, PG Dept.Of Shalyatantra
****Dr. Archana Kukade Shinde**
Associate Professor Dept Of Shalya Tantra
Dr.D.Y Patil College Of Ayurveda And Researchcentre Pimpri Pune ,Maharashtra 411018

Abstract:

Department of shalya tantra is dealing with many parasurgical procedures which are helpful to human beings in many different ways especially old age people who‘s immunity is compromised and also generalised weekness due to weaker bones and loss of muscle power . Also old age people are prone to different type of chronic illneses like varicose veins is one of the most commonly caused diseases which progress with due course of time develop into varicose ulcer and cause problem in old age but this can be treated effectively with jaluka avcharan a type of parasurgical procedure as jaluaka have a good property of sucking dusta rakta from body so it prevent pain as well as discomfort and also stops further progress of this disease into ulcer so can be used effectively in old age .

Also many anorectal disorder like arsha , bhagandar etc can treated effectively by kshara karma or kshara sutra as these are cost effective and has least side effect and also does not hamper our immunity as kshara has a property of cutting and healing so it will help in removing infected skin and also help in healing of wound site so can be used effectively in old age .

Most of the chronic pain related disorders like frozen shoulder tension type headache , cervical spondylisis etc can treated with marma therapy a type of parasurgical procedure as in this special marma points are pressed and stimulated so that pain is relieved and it can be performed daily and at home also and does not have any side effect if performed accordingly with care .Agni karma also help in reliving pain by applying hot shalaka on pain site which will inhibit nerve ending and release pain especially in calcaneum spur, frozen shoulderetc.

Key words -; rakta mokshana , jalauka avcharan,kshara karma, agni karma, marma therapy

Introduction-;

In this growing world of digitilisation and sedentary life style habits hiumanity is facing a lot of new chalanges in the form of diseases which are difficult to treat. Therefore people looking for treatmeant which are cost effective as well as have less side effects and shalya tantra which is a branch of Ayurveda has many parasurgical procedures like rakta mokshana ,jalauka avcharana ,kshara karma ,agni karma ,marma chikitsa etc have been proven of great advantange especially in old age people with chronic illness.as these procedures are cost effective and do not compromise patients immunity as well as have least side effects .

Jalauka avcharan-;

It this nirvisha jalunka are taken and applied on the effected part of body like in vericose vein,dusta varna ,ulcers etc which are common in old age people. As nirvisha jaluka has properties like anti inflammatory,analgesic,anticoagulation also sucks impure blood from the effected site and improves wound healing so can used for non healing ulcers which are commonly seen in old age patients

Vericose which is abnormal dilatation of blood vessels are mostly seen in old age patients due to prolonged standing and it pain is a major complain which can be cured by jalauka application and in later stages it cab become vericose ulcer if not treated mostly seen in 7th or 8th decade of life and is not easy to treated can be cured with jaluka avcharan.

Kshara karma-;

Kshara can applied locally from outside know as pratisarniya kshara or can be taken as medicine orally known as paniye kshara or can be applied in thread known as kshara sutra.in many chronic illness like piles ,heamorrhoids,fistula etc kshara karma is one the best treatment modalities for old age patients as it has least side effect with minimum chances of disease reoccurance . like if we apply pratisarneya kshara on internal heamorrhoids in one or 2 sittings it get cured with minimum hospital so there is less chances for old age patients to get hospital acquired infection as they already have compromised immunity. Also kshara sutra which is having cutting and healing property can be applied in external piles as well as fistula in ano so it will remove the unhealthy tissue and heal the infected tissue with minimum side effect

Agni karma -;

Chronic illness like calcaneum spur which mostly occur in old age due to hypercalcification of our bones and causes great discomfort as well as pain while walking and hamper day to day work so in this agnikarma in which shalaka made of gold or silver is heated an applied on the effected part which will desensitise the nerve ending of that part help in relieving pain . many other illneses like corn,hernia,sciatica etc can also be treated with agni karma.

Marma chikitsa-;

Marma chikitsa works on stimulating the special marma points mentioned in ouir ayurvedic text by simply putting gentle pressure or putting oil on that point and gently massaging that point which will stimulate specific nerve ending and help in releasing pain , many chronic illness like frozen shoulder which usually occur in geriatric patients have very significant effect in pain management as well as restricted movement also get relieved. Marma points serve as channels or windows connecting the physical body to inner concious and mind thus positive changes can be generated by proper stimulation of marmani Marmani work as stress buster which is major cause for many diseases in old age.

Marma chikitsa nurtures the prana the vital energy of body and thus help to achieve the goal of wholesome health at physical mental emotional and spiritual level.

It enriches the aura or energy field of body and keeps the person beaming vibrant anergetic and healthy Compassionate and sincere execution of the marma chikitsa ensures the proper spinning of all the major nchakras and thus enhances the vigour vitality immunity and keep the person contended and happy.

Discussion-;

As all these parasurgical procedures are very effective in eradicating many chronic illness especially in geriatric patients and are very cost effective as well as have least side effect and can be done in day care so no hospital stay is required .

Conclusion-;

These parasurgical procedures are highly effective in reducing chronic illness especially in geriatric patients as they are mostly immune compromised and so wont be able to tolerate any side effects .

SCOPE OF SHALYA TANTRA IN WOUND CARE IN GERIATRICS

***Dr. J. Jayashri**
PG Scholar,Pg Dept.Of Shalyatantra .
****Dr. Sanjay C Babar**
Hod Dept Of Shalya Tantra
Dr. D Y Patil College Of Ayurved And Reseach Centre Pimpri Pune Maharastra 411018

Abstract:

Wound care comes under surgery ,especially it‘s a difficult task in case of geriatric patients.with our aging population ,chronic disease that compromise skin integrity such as diabetes ,peripheral vascular disease etc .skin breakdown with ulcer and chronic wound formation is a frequent consequence of these diseases.treatment of these ulcers involves recognizing the four stages of healing.this article will focus on special considerations needed when providing wound care to elderly.approximately 3.5%of the geriatric population suffers from leg ulcers and this number rises as the population ages ,recurrence rates are high as 70%.the increased prevalence of wounds in elderly may be caused by immobility ,disease or merely changes in skin itself.as per basics of Ayurveda in vridhaavasta vayu predominanace is there,that will get vikrta avasta in rogas.correcting vikrut vayu also plays role in management of wound in elderly .with due considerations of doshic imbalance treatment should be done. In our ancient texts like sushruta, wound management importance is mentioned.

In that they described shastiupakrama&saptupakrama from its manifestation to the complete healing &given much importance, these procedures are applied even to geriatric patients which helps to treat and manage wound fast without much complications.

Key words:shastiupakrama,saptaupakrama

INTRODUCTION

The development of drugs for wound management especially for old age is a concern of long history in medical science .in Ayurveda elaborative description about the treatment of wounds is mentioned in sushruta Samhita in the name of vrana .in describing the pathogenesis of wound or vrana three stages are mentioned ama,pachyamana and pakva

stage and classified according to predominace of dosha.a series of 60 steps of treatment of wounds is mentioned (sastiupakrama),which starts with dissolution of inflammation and ends with correction of deformities in the wound area.out of these steps ,seven steps are most important and one of which is use of plants,minerals,and animal products as vranaropaka dravyas(wound healing agent).this divergence of ayurvedic drugs definitely excel those of modern remedies for the wounds.in classical ayurvedic texts aabout 164 medicinal plants ,24 metals,and minerals and 18 animal products are described for their wound healing activity under the term of vranaropaka.apart from drugs dietary habits ,following daily and seasonal regimens mentioned in Ayurveda also helps to heal wound fast in old age .since vata dosha is predominant in old age rasayanam also plays a important role in the management.the common drug mentioned in our Samhita for wound healing is madhu and ghrita,which is available easily ,so that this can be practised even by common peoples.if needed we can add vranaropaka dravya according the condition of wound .

PATHYA-APATHYA

in each and every disease following dietary regimen is important .the diet of a patient entertaining open wound should preferably consists of laghuaharain small quantities.foods should be taken freshly cooked with fatty articles(esp cow ghee).above all digestive upsets should be avoided.hot liquefied food (like manda,peya,vilepi,)mixed with goghritain small quantity with meat soup,a good diet for wounde by which quick healing of wound occurs.especialy in wound katu dravya ,amla ,lavana rasa foods should be avoided.

WOUND CARE

regular cleaning and dressing of wound in old age is important as they are more prone to infections easily because of less immune power at old age .for dressing of wounds madhu ,ghrita can be used .madhu has properties like lekhana(scrapping),sandhana(union),shodana(purification),ropana(healing)and tridosaghna(pacifiying tridoshas).also honey is hygroscopic in nature,it prevents colonization and bacterial growth in tissues due to its acidic nature .it also has antibacterial property because honey is a hyperosmolar medium preventing bacterial growth.it has high viscosity it forms a physical barrier,and the presence of the enzyme catalase gives honey antioxidant properties which promotes wound healing.

DISCUSSION

From understanding the nature of old age people (doshic predominance) and following proper pathya apathya ,wound care etc helps in healing of wound in geriatric patient .

CONCLUSION

These methods are highly effective in reducing wound in geriatric patients without any side effects.

SCOPE OF SHALYA TANTRA IN GERIATRICS UROLOGY: URINARY INCONTINANCE.

***Dr Jitendra Kumar**
1-PG Scholar, PG Dept.Of Shalyatantra .
****Dr Atul Patil , ***Dr. Dhondappa S.Bhanje**
2,3-PG Scholar, PG Dept.Of Shalyatantra.
College Of Ayurveda And ResearchCentre Pimpri Pune Maharashtra 411018
Email:Jit.Bhargawa89@Gmail.Com.

Abstract:

Urology is one of the surgical specialties that has been most affected by the growing demographic of older adults in the United States. Urological problems are common in elderly people, and care of patients aged 65 and older represents a large proportion of many urologists practices. A urologist might treat bladder problems, urinary tract infections (UTIs), bladder and kidney cancer, kidney blockage, and kidney stones. Men might also see them for: Erectile dysfunction (ED) Enlarged prostate gland. Increases with age and affects women more than men (2:1) until age 80,15-30% in community dwellers age 65 and older,60-70% in older adults age 65 and older in long term care Significantly impairs quality of life. Risk factor are obesity,Functional impairment,Dementia,Medications,Age related lower urinary tract symptoms. Lower urinary tract symptoms (LUTS)changes Environmental barriers to toilet access, Uninhibited bladder contractions increase Diurnal urine output occurse later in day,Bladder capacity decreases, Sphincteric striated muscle attenuates,pvr increase. Age related lower urinary tract symptoms changes-Women In addition to the physiologic changes already discussed, Urethral closure pressure decreases,Vaginal mucosal atrophy. Urge UI with detrusor overactivity (uninhibited bladder contractions) 40% on urodynamic testing Suggest detrusor overactivity PLUS impaired compensatory mechanisms.Idiopathic, age-related, secondary to lesions in cerebral and spinal pathways.Due to bladder outlet obstruction or bladder irritation. Etiology.Damage to the pelvic floor supports ,Sphincter failure,Leakage associated with coughing, sneezing, laughing, physical activity,Second most common form in women,Seen in men after prostectomy. Frail elderly: coexistence of urge UI and PVR (in the absence of bladder outlet obstruction) detrusor hyperactivity with impaired

contractility (DHIC).Management by Behavioral Therapies A. Bladder training and pelvic muscle exercises1. Effective urge B. Prompt timed voiding in cognitively impaired C-Medications Anti Muscarinics .The treatment goal should be realistic and aim to improve the patient's functional status and quality of life. Best treatment outcomes can only be achieved by a holistic treatment approach.

Key Words :LUTS(Lower urinary tract symptoms),Dementia, Erectile dysfunction, PVR (post-void Residual) .

Introduction:-

In the United Kingdom, the 2001 report National Service Framework for Older People highlighted a need for continence services to be integrated across primary, acute, and specialist care.5 A recent national audit of continence care for older people found that urinary incontinence is poorly managed both in the community and in secondary care. Fundamental assessments such as rectal examination and measurement of the postvoid residual volume (the volume of urine remaining in the bladder after voiding) were rarely performed and management plans relied on containment rather than treatment of the underlying cause. Urinary Incontinence (UI) is defined as involuntary urination, or enuresis or complaint of involuntary leakage of urine. It is a very common and distressing problem amongst elderly population, which may have a profound impact on the quality of life. Continence is maintained by bladder wall stability and an intact pelvic floor and nerve supply to the bladder. Continence also requires mobility, manual dexterity, and the cognitive ability to react to bladder filling. Often the cause of urinary incontinence is multifactorial, but loss of any one of these mechanisms can compromise continence. As people age, physiological changes in the lower urinary tract can predispose to urinary incontinence. Bladder capacity and urethral closure pressure decrease with age, while the post-void residual volume and over activity of the detrusor muscle increase .An underlying treatable medical condition but is under-reported to medical practitioners . It is a very common condition with prevalence ranging from 10% to 34% especially amongst elderly where prevalence reported is one amongst every three persons. The condition is usually under reported as many women hesitate to seek help or report symptoms to medical practitioners due to the embarrassing and culturally sensitive nature of this condition . The bladder's ability to failed and store urine requires a functional sphincter (muscle controlling output) and a stable bladder wall muscle (detrusor). The bladder of infant contracts automatically when urine is feelled upto a certain volume of bladder. As the individual learns to control urination, bladder muscle contraction is prevented by constant inhibition from the cerebral cortex. This allows urination to be delayed until the individual is ready. Undesired bladder muscle contraction may occur as a result of a break in the neurological pathway from the brain to the bladder. It can also occur if the bladder is irritated and the normal neurological impulses to inhibit urination are insufficient to keep

the bladder relaxed. UI can also lead to medical problems such as local skin irritation, rashes and urinary infections. In the debilitated and bed bound patients, it can lead to pressure ulcers. which can increase the risk of localized and systemic infections including osteomyelitis and sepsis. Psychological, physical and environmental causes may prevent an elderly person from voiding urine normally. Delirium, dementia and psychosis can interfere with a patient's ability to understand the sensation of bladder fullness. Delirium is a common cause of incontinence in hospitalised patients. Frailty, injury, illness, or surgery can also render many elderly patients immobile. Lack of easy access to toilets or prompt help is environmental.

Causes of incontinence:-

Stress urinary incontinence is the most commonly diagnosed subtype of incontinence in adult women. The median prevalence of female urinary incontinence was 27.6% (range: 4.8-58.4%) and the prevalence of significant incontinence increased with age. Other risk factors included parity, obesity, chronic cough, depression, poor health, lower urinary tract symptoms, previous hysterectomy and stroke . Globally, urinary incontinence affects the quality of life of at least one third of women. Many women are too embarrassed to talk about it and some believe it to be untreatable even in western countries. This problem is more pronounced in India, where women usually do not seek treatment for their reproductive health problems and do not vocalize their symptoms. There is a "culture of silence" and low consultation rate among Indian women regarding such problems .

Neurological Causes of Incontinence:

It include Parkinson disease, Alzheimer disease, multiple sclerosis, stroke, brain tumour, multiple system atrophy, herpes, spinal cord lesions (like syringomelia, spinal stenosis, Gullian Barre syndrome, transverse myelitis, spinal injury, cervical myelopathy), diabetes, cauda equine, amyloidosis, inherited neuropathies, injury to pelvic nerves, Tabes dorsalis, focal neuropathy (peripheral neuropathy due to iatrogenic lesions) interfere with nerve signals involved in the bladder control.

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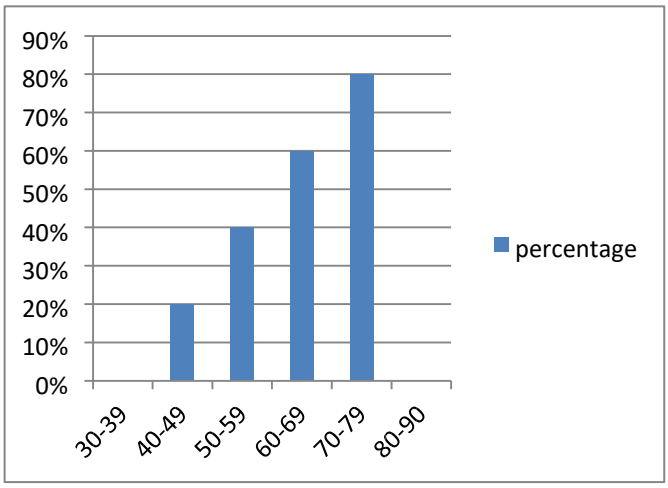
Fig.1: Prevalence of Urinary Incontinence by Decade of Life.



Types of Incontinence

1. **Urge incontinence-** It is defined as an abrupt and intense urge to urinate that cannot be suppressed, followed by an uncontrollable loss of urine. The amount of urine lost may be small or large. People with urge incontinence usually have very little time to get to the bathroom before they have an "accident". Most people with urge incontinence urinate more frequently, not only during the day but also at night (nocturia). The combination of urgency, increased frequency of urination and increased urination during the night is often referred to as an overactive bladder, whether or not the combination leads to incontinence .

2. **Stress incontinence-** It is the uncontrollable loss of small amounts of urine when coughing, straining, sneezing, lifting heavy objects or during any activity that suddenly increases pressure within the abdomen. This increased pressure overcomes the resistance of the closed urinary sphincter. Urine then flows into and through the urethra. Stress incontinence is common in women but uncommon in men.

3. **Over flow incontinence:-** It is the uncontrollable leakage of small amounts of urine, usually caused by some type of blockage or by weak contractions of the bladder muscle. When urine flow is blocked or the bladder muscles can no longer contract, urine is retained in the bladder (urinary retention) and the bladder enlarges. Pressure in the bladder continues to increase until small amounts of urine dribble out. The increased pressure in the bladder can also damage the kidneys

4. **Functional incontinence-** It refers to urine loss resulting from the inability (or sometimes unwillingness) to get to a toilet. The most common causes are conditions that lead to immobility such as stroke or severe arthritis and conditions that interfere with mental function such as dementia due to Alzheimer's disease. In rare cases, people become so depressed that they do not go to the toilet (psychogenic incontinence).

Pathophysiology:

The maintenance of continence in the lower urinary tract is by means of an integrated neurological control mechanism as well as factors like a sound mental state, mobility, dexterity and motivation. The genesis of UI is in the aged is associated with changes in bladder function characterised by an increased frequency of uninhibited contractions as well as an abnormal relaxation pattern of the detrusor, impaired contractility and reduced bladder capacity. There is an increase in nocturna l urine production. Sexspecific changes are the increase in prostate size in males and urethral shortening as well as sphincter weakness in females (Table 1). UI has many possible risk factors, such as a bladder infection, a broken hip, delirium, enlarged prostate in men or dementia. Incontinence may resolve and never recur. Alternatively, it may persist, recurring sporadically or, in some cases, frequently.

Table 1: Comparison between Normal and Aging Bladder

Bladder	**Normal**	**Aging Bladder**	
Filling & Storage	Voiding	Filling & Storage	Voiding
Bladder filling	Detrusor contraction	Increased bladder excitability	Increased outlet obstruction
Detruser relaxation	Sphincter relaxed	Reduced outflow resistance	Decreased contractility
Sphincter contracted	Smooth urine flow	-	Palpable bladder
Continent	Normal micturition in an appropriate environment.	Urge incontinence Stress incontinence.	Continuous dribbling

Evaluation of incontinence:-

Keeping urge, stress and overflow incontinence in mind, family physicians can undertake the basic evaluation of patients with incontinence. In most patients, the evaluation requires only a medical history, a physical examination, urinalysis and measurement of post void residual (PVR) urine volume. Occasionally simple OPD tests of lower urinary tract function are helpful. The first goal of the basic evaluation is to identify transient (i.e., easily reversible) causes of incontinence so that effective treatments can be instituted. The second goal is to identify conditions that may require special evaluation or referral to urologist or urogynecologist. After transient causes and indications for special evaluation or referral havebeen excluded, the third goal is to decide if the patient's symptoms are more indicative of urge incontinence or stress incontinence and initiate treatment accordingly

Transient (reversible) conditions that cause or contribute to urinary incontinence :-

Detectable by history:- drug side effects, delirium or hypoxia, recent prostatectomy, excessive fluid intake, impaired mobility.

Detectable by physical examination:- atrophic vaginitis, fecal impaction.

Detectable by urinalysis: urinary tract infection, glycosuria.

Table 2: Drugs that Can Cause or Contribute to Urinary Incontinence:-

Drug class		Mechanism of incontinence
1.Drugs causing overflow incontinence		
Anticholinergice		
1	Antidepressants	Decreased bladder contractions with retention
2	Antipsychotics	Decreased bladder contractions with retention
3	Antihistamines	Decreased bladder contractions with retention
4	Sedative-hypnotics	Decreased bladder contractions with retention
(b)Nervous system depressants		
	Narcotics	Decreased bladder contractions with retention
	Alcohol	Decreased bladder contractions with retention
	Calcium channel blockers	Decreased bladder contractions with retention
	Alpha-adrenergic agonists	Sphincter contraction with outflow obstruction
	Beta-adrenergic blockers	Sphincter contraction with outflow obstruction
2. Drugs causing stress incontinence		
Alpha-adrenergic antagonists		Sphincter relaxation with urinary leakage
3. Drugs causing urge incontinence		
Caffeine		Diuretic effect

Treatment of Incontinence:-

The management can be considered as: i) Nonpharmacologic ii) Pharmacologic iii) Invasive/ Definitive surgery iv) Appropriate referral for urodynamic studies, urologic or gynaecologic evaluation.

Non-pharmacologic Treatment :-

These are behavioral interventions which are modified according to the patient. The goal is to restore normal pattern of voiding and continence. They include rehabilitative exercises focusing on pelvic muscles (Kegel) which if correctly performed can be effective in urge, stress and mixed forms of incontinence. Bladder training is also a useful modality in the above types of UI while bladder retraining is used after a period of temporary catheterization Other method is for mentally retarded patients. It includes prompted voiding by the caregiver at scheduled 2 hour intervals during the day; habit training based on patients voiding patterns and scheduled toileting for those with severe cognitive impairment who cannot respond to communication.

Pharmacologic Treatment :-

The contraction of the detrusor muscle depends on the muscarinic receptors of the bladder. Selective agents are better. Of the muscarinic receptors, M3 mediate direct detrusor muscle contraction while M2 inhibit bladder relaxation and modulation of bladder contraction in pathologic conditions. Oxybutynin is a relatively non-selective agent acting on M1, M2, M3 receptors. The dose is 2.5 - 5.0 mg thrice daily. Tolterodine is more selective. acting on M2, M3 receptors. The extended release form is more efficacious. M3 selective agents like darifenacin and solifenacin are effective in overactive bladder but are not yet in the mainstream of the geriatric practice. Trospium is another approved agent with low CNS side effects. In cases with stress incontinence, imipramine hydrochloride is a useful drug as it increases bladder capacity and bladder outlet resistance but side-effects in the elderly may produce more harm than benefit. Similarly, alpha receptor agonists e.g. pseudoephedrine are useful but should be prescribed with caution. Vaginal estrogen creams and low-dose conjugated estrogens may be used in females.

1-Invasive/Defnitive Surgery:- Overfow incontinence due to prostatic hypertrophy responds to prostatectomy.

Role of Surgery in Women :- Periurethral Injections: One of the surgical treatments for this condition, used in both males and females, is urethral injections of bulking agents to improve the coaptation of the urethral mucosa. The injections are given under local anesthesia with the use of a cystoscope and a small needle.

Sub-urethral Sling Procedures : The most common and most popular surgery for stress incontinence is the sling procedure.

Retropubic Colposuspension:

Anterior Vaginal Repair:

Sutures are placed in the periurethral tissue and fascia in order to elevate and support the bladder neck.

Role of Surgery in Men:

The male sling procedure is based upon the concept of passive external urethral compression. In male patients with stress incontinence, an alternative is to perform a urethral compression procedure, called a male sling. This is done with the use of a segment of cadaveric tissue or soft mesh to compress the urethra against the pubic bone. It is placed through an incision in the perineum (the area between the scrotum and the rectum).

Artifcial Urinary Sphincter:

This device is made from silicone and has three components that are implanted into the patient. The cuff is the portion that provides circular compression of the urethra and therefore prevents leakage of urine from occurring. This is placed around the urethra after an incision is made in the perineum. A small fluid filled pressure - -regulating balloon is

placed in the abdomen and a small pump is placed in the scrotum to be controlled by the patient. The fluid in the abdomin al balloon is transferred to the urethral cuff, closing the urethra and preventing leakage of urine.

Conclusion:

UI is highly prevalent in older persons and results in significantly decreased quality of life, morbidity and high costs. In older persons, UI is not simply a lower urinary tract disorder but represents a geriatric syndrome with broadly based, patient level risk factors that include agerelated changes in physiology, co-morbidity, medications, and functional impairments. Older persons should be actively screened for UI, and an initial office based evaluation based on history, examination and urinalysis is sufficient to initiate treatment. UI treatment should be stepwise, progressing from behavioural and medication therapy to more invasive approaches, as needed and appropriate. Behavioural therapy (bladder

training and pelvic muscle exercises) is effective in reducing urge and stress urinary incontinence. Antimuscarinic medications for urge UI have similar efficacy and drug choice should be guided by anticipated adverse effects and other factors.

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SCOPE OF SHALYA TANTRA IN GERIATRIC WOUND CARE

***Dr. Madhura Sunil Adsul**
PG Scholar Shalyatantra Department
****Dr. Amit Shedge**
Head Of Department & PG Guide,
LRP Ayurved Medical College And Hospital, Islampur

ABSTRACT-

The pathological conditions of vrana may initiate due to the result of Injury. The Twak ,Mamsa ,Sira, Snayu, Asthi, Sandhi & Koshta are major vrana sthana. Vitiation of doshas, along with external factors like incision, laceration, cuts etc. causes vrana . Because of doshprakopak aahar, vihar vrana get infected in geriatric patients, infected vrana takes long time to heal. In the management of vrana modern science have antibiotics, along these they use NSAID'S which might have many adverse effects specially in geriatric patient. So wound management in geriatric patients still challenge for surgeons, Acharya sushruta was aware of the importance of wound management, Acharya Sushruta described shashti upkramas for the management of vrana. Which may help in geriatric wound care without any adverse effects.

KEYWORDS-Vrana, Geriatric, Acharya Sushruta

INTRODUCTION -

Vrana is the most important part of shalya tantra and our texts have emphasized a lot on wound care occurring due to trauma or a result of vitiated dosha for providing proper & complete wound healing, it is important to study what a wound is and through which phases wound pass before getting healed. Vrana has described as ‗vrana gatra vichurnane ,vranayati iti vranah' [(1)]

The concept of Vrana is as old as human life. ‗Vrana' from the starting of life is described as a common and major problem faced by human. Thus, description of Vrana is found in most of literature related with human health. The earliest reference of Vrana are found in Vedic literature in context of injuries. Basic concept of wound cleaning, closure and splitting were described in various medical systems. Vrana is the most important and widely described chapter of Shalya Tantra by Sushruta . (2)

Vrana (traumatic injury) can also be converted into a Dushtavrana due to various reasons. eg. Hetusevan, improper hygiene etc.

According to Ayurveda, dushta vrana has a foul odour, is continuously flowing putrefied pus combined with blood, has a cavity, and has had a foul odour for a long time. The intensity of vranalakshanas is high, which is almost the polar opposite of shuddhavrana. The lakshanas are samruta, kathina, avasanna, vivruta, ushna, daha, paka, and puyasrava, while the dushta vrana is a non-healing or contaminated wound.(4)

Types of Vrana: (4)

As per Acharya Sushruta Two types of Vrana.(su chi 1/3)

1. Sharir (nija)- vata, pitta, kapha ,rakta, sannipata

2.Agantuj – caused due to external injuries eg trauma, due to fall , animal bites, kshar, agni, poison contact.

As per acharya charaka, two types (ch .chi.25/5,6)

1. Nija – sharirdoshotha -vata ,pitta, kap

2. Agantuj – Bahyahetuja

As per sangraha (As .san.uttartantra 29 /3,4)

1. Nija 2.Agantuja

And

1.Shudhavrana 2.Dushtavrana

As per Ashtang hridaya (uttartantra 25/1,2)

1. Nija

Vrana chikitsa : (5)

In Ayurved, the treatment of Vrana is described in detail according to its bheda, Awastha and Dosha of the Vrana. Sushrut has described it further, by considering very minute aspects of the Vrana. He has also mentioned Pathya–Apathya, Vranitagar and Vranitopasana. Vrana Chikitsa should be done in Vranitagara to prevent the invasion of Nishacharas in the Vranita. The Vranita will not suffer from physical, mental and traumatic disorders by residing in such as vyadhi where rakshakarma may be done along with Dhoopana. **1. SamanyaChikitsa:-**

Vranitasya should be given Shodhana by Vamana or Virechana, Basti or by Raktamokshana with help of Shastra. When the body becomes Shuddha, the Vrana heals spontaneously and easily.

2. **VisheshaChikitsa:- (as per Dosha)**

- VatajaVranaChikitsa:- Person suffering from VatajaVrana should be treated with Sampoorana, Snehapana, Swedana, Upanaha, Pradeha, and Parisheka which are of unctuous nature.
- PittajaVranaChikitsa:- Person suffering from PittajaVrana should be treated with Pradeha, Parisheka, Sarpipana and Virechana using Sheetal-Madhura Tikta dravyas.
- KaphajaVranaChikitsa:- Person suffering from Kaphaja Vrana should be treated with Pradeha, Parishechana, prepared of Kashaya-Katu- Ruksha-Ushna dravyas and Langhana, Pachana etc.

Acharya sushrut explained Shashti upakrmas for vrana chikitsa.(Which is useful in geriatric wound care also). (6)

1) Apatarpana	2) Aalepa	3) Parisheka	4) Abhyanga
5) Swedana	6) Vimlapana	7) Upanaha	8) Pachana
9) Snehapana	10) Visravana	11) Vamana	12) Virechana
13) Chhedana	14) Bhedana	15) Darana	16) Lekhana
17) Eshana	18) Aaharan	19) Vyadhana	20) Seevana
21)Sandhana	22) Peedana	23) Shonitasthapana	24) Nirvapana
25)Utkarika	26) Kashaya	27)Kalka	28) Varti
29)Ghrita	30)Taila	31)Rasakriya	32)Avachuranana
33) Vranadhoopana	34)Utsadana	35)Avasadana	36)Mrudukarma
37)Darunkarma	38) Ksharakarma	39)Agnikarma	40)Bastikarma
41)Uttarbasti	42)Patradana	43)Krimighna	44)Bruhana
45)Vishaghna	46)Shirovirechana	47)Nasya	48)Kavalgraha
49)Dhoomapana	50)Madhu	51)Sarpi	52)Yantra
53)Krishanakarma	54)Pandukarma	55)Pratisarana	56)Romasanjanana
57)Romashatana	58)Bandha	59)Ahara	60)Rakshavidha

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A BIRD'S EYE ON UNDERSTANDING OF URINARY INCONTINENCE AND ITS AYURVEDIC MANAGEMENT – A REVIEW

***Dr.Ponnulekshmi.D**
First Year PG Scholar, Dept Of Shalya Tantra
****Dr.Rajeswari .P.N**
Associate Professor,
Dept Of Shalya Tantra ,
Amrita School Of Ayurveda, Amritapuri, Amritavishva Vidyapeetham, India

ABSTRACT

Urinary incontinence is usually the name given to a condition in which people are not able to optimally control urination. The geriatric rank of Urinary incontinence is among the 4 most distressing disorders after angina, difficulty with ambulation, and psychiatric disorders. UI is one of the major cause of disability and dependency and significantly increasing the risk of home care. As per Ayurveda, Urinary incontinence is interpreted as Vata kundalika that covers the conditions of kidney and urinary tract infection. Vata kundalika , one among mutra khadha is predominantly a vata disease and its treatment should be planned accordingly. Acharya Sushrutha had mention the mutra Khadha chikitsa in detail which helps the physician to propose the early line of treatment by seeing the vitiated dosha condition. So we can say that the physician who diagnose a disease at the earliest can treat accordingly and hence will become a successful Practitioner.

Keywords :- Urinary incontinence, Mutra khada, Pathogenisis , Ayurveda

INTRODUCTION

Urinary incontinence is usually the name given to a condition in which people are not able to optimally control urination. It is one of the common clinical problem, and its incidence increases as age advances. There are reports which suggestes that UI is associated with frailty, whereby the ability of the body to cope with stress and physiological functions decreases. Normal ageing does not prove any cause of UI, even though age-related changes in lower urinary tract function can predispose older people to UI and can be exacerbated by comorbidities. UI is one of the major cause of disability and dependency and significantly increasing the risk of home care. The geriatric rank of Urinary incontinence is among the 4 most distressing disorders after angina, difficulty with ambulation, and psychiatric disorders. People suffering from this disease complain about leakage of urine while coughing or sneezing and feeling of urgency to urinate as soon as possible. UI is characterized by lower urinary tract symptoms, which include both storage

and voiding problems. Urge urinary incontinence can be defined as involuntary urine leakage associated with urgency. Stress urinary incontinence can be defined as involuntary urine leakage associated with specific activities. Mixed urinary incontinence includes features of both UUI and SUI. Overflow incontinence is caused by a hypotonic bladder, bladder outlet obstruction, or other forms of urinary retention and may result in LUTS and in the loss of small amounts of urine; it most often occurs in men with benign prostatic hyperplasia .The term overactive bladder is often used to describe UI which comprises a constellation of symptoms typically characterized by urgency, with or without UUI, accompanied by frequency and nocturia .The prevalence of UI is higher in women than in men 80 years of age or younger, but both sex are affected almost equally after age 80. UI usually associated with aging, affects up to 30% of elderly people. UI may also associated with certain comorbidities, including hypertension and depression etc. As per Ayurveda, Urinary incontinence is interpreted as Vata kundalika that covers the conditions of kidney and urinary tract infection. Vata kundalika , one among mutra khadha is predominantly a vata disease and its treatment should be planned accordingly.

MATERIALS AND METHODS

Review of Literature regarding are collected from samhita_s and journals . All compiled matter is and critically analysed for the discussion and attempt has been made to draw some fruitful conclusions.

DISCUSSION

Urinary incontinence in geriatric people is becoming an increasing medical and socioeconomic issue. Multi modal factors, including age-related physiological changes, can result in or contribute to the various syndromes of UI. Both genitourinary and nongenitourinary causes may contribute to incontinence in geriatric patients. Age-related functional changes in the urinary tract includes detrusor overactivity, impaired bladder contractility, decreased pressure in urethra closure, atrophy of urethral areas, and prostatic hypertrophy may contribute to Urinary in continence in men. While in women, risk factors for these genitourinary changes include multiple or complex vaginal deliveries, high infant birth weight, a history of hysterectomy, and physiological changes related to the transition to post menopause. The other risk factors include smoking, a high body mass index, and constipation ete. Urinary incontinence symptoms are highly prevalent among women and have a substantial effect on health-related quality of life and are associated with considerable personal and societal expenditure. A thorough diagnostic evaluation of urinary incontinence requires a medical history, physical examination, urinalysis, assessment of quality of life etc. Interventions can include non-surgical options including lifestyle modifications, pelvic floor muscle training and drugs and surgical options to support the urethra or increase bladder capacity. Future directions in research may

increased by targeting primary prevention through understanding of environmental and genetic risks for incontinence.

Pathophysiologically the cause of UI include lesions in higher micturition centers, in the sacral spinal cord, and in other neurological areas as well. UI can also may associated with numerous comorbidities, such as Parkinson‘s disease, Alzheimer‘s disease, cerebrovascular disease, diabetes, hypertension, obstructive sleep apnea, and normalpressure hydrocephalus. Functional factors, including mobility and dexterity, along with reaction time and lack of access to a bathroom facility, may also contribute to UI. The management of UI should include an evaluation of potential reversible contributors and trials of nonpharmacological interventions, which depend on the type of UI identified. Clinical studies support proper nutrition, the avoidance of constipation, weight loss, and physical activity as beneficial in improving symptoms. Success with these interventions requires the patient‘s awareness of the need to void and the ability to delay voiding if necessary. These interventions, along with exercise, are associated with modest and short-term improvements in daytime UI. Pelvic floor (Kegel) muscle training and bladder training have been beneficial in resolving or improving UI. Kegel exercises involve strengthening and retraining the detrusor bladder muscle to regain some control of urinary function.

In Ayurveda, this condition can be concluded under the heading of predominant vata disorders among mutrakhadha. In old age Vata aggravated and creates this condition. Prevention is better than cure and proper ahara, vihara, dinacharya and ritucharya etc help us to keep fit and healthy. According to Sushruta Urinary incontinence can be corelated to vata kundalika and can be caused due to excessive ingestion of Rukshya Ahara and intentionally holding the natural urge of micturition, defecation etc. the Vayu gets vitiated and enters urinary bladder and Mutra. In Vatakundalika no organic cause of obstruction is present so this condition can be correlated with smooth muscle sphincter dyssynergia that is internal sphincter dyssynergia in which non functioning of sphincter occurs. As sphincter remains closed, retention of urine results. This disease may be also be correlated with bladder neck obstruction The yet another dimention of prevention of diseases is an early diagnosis of the disease at its budding stages. In this case of mutra khadha :- vata samana chikitsa, vasthi vishesha chikitsa to normalise the apana vayu, and Mashtishka balya treatment principles should be adopted. Ayurveda remedies are known to be perfectly safe and have been tried by thousands of patients all over the world bedwetting are perfectly safe. These natural remedies do not have any side effects at all.

CONCLUSION

Patients having this signs and symptoms of UI should undergo complete medical evaluation to rule out reversible causes of the disorder. Formulating an accurate diagnosis

may require the participation of clinicians with specialized training in urology. UI in older adults is associated with a high risk of institutionalization and comorbidities, including depression and UTIs, appropriate assessment of transient UI is essential. Acharya Sushrutha had mention the mutra Khadha chikitsa in detail which helps the physician to propose the early line of treatment by seeing the vitiated dosha condition.

AYURVEDIC MANAGEMENT OF CHRONIC WOUND – A CASE STUDY

***Dr.Rohini**

ABSTRACT:

Background: In Ayurveda vrana (wound) has stated as destruction of viable tissue due to various etiology. Vrana can be classified into sudha vrana and dustha vrana (chronic wound). Among the drugs mention for dustha vrana Triphala and Panchavalkal are selected for their wide spectrum action on wound. Aim: management of chronic wound with topical Triphala kwath dhavan and Panchavalkal ointment local application. Material and methods: A 50 year male patient, presented with chronic wound over right leg anterior aspect with pain, slough, seropurulent discharge since 3 month. Initial measurement of wound was 20cm length-10cm width-3cm depth. Patient was given freshly prepared guduchi swaras orally along with washing of wound with Triphala kwath daily and application of wound dressing with Panchavalkal ointment were done daily. Result: The wound was completely healed with normal skin by the sixth week. Conclusion: Topical use of Triphala kwath dhavan with Panchavalkal ointment and oral use of Guduchi patra swaras were found effective for chronic wound healing.

KEY WORDS: Ayurveda, vrana, Triphala kwath, dhavan, Panchavalkal, chronic wound.

INTRODUCTION:

A wound is a break in the integrity of the skin or tissue often, which may be associated with disruption of the structure and function [1]. Based on the time elapsed wound is classified into acute and chronic wound [2]. The systemic diseases that affect the wound healing are Diabetic mellitus, rheumatoid arthritis, peripheral vascular diseases and its treatment- use of corticosteroid, immunosuppressant [3]. Risk factor that delay wound healing includes bacterial infections, nutritional deficiencies, certain drugs such as antineoplastic and the anatomical site of wound [4]. The conventional medicinal approach is usually aimed at proper wound based maintenance, sharp debridement, pressure prevention, vascular intervention and prevention of chronic infection. In spite of the advances that have been made, the management of chronic wound is still a challenge for clinician. Hence there is need to search for alternative treatment for chronic wounds.

In Ayurveda Acharya Sushruta was quite aware of the importance of wound management and describe Shashti upakrama (sixty measure) for vrana ropana (wound healing) [5]. Acharya Sushruta primary approach involves shodhan (purification) and

ropana (healing) of vrana. In addition to local application, oral administrations of herbs are also specified to enhance wound healing.

In this case study chronic wound treated with topical Triphala kwath dhavan with Panchavalkal ointment and oral Guduchi patra swaras which led to complete healing within six week.

CASE REPORT:

A 50year male patient, presented with a chronic wound on right leg anterior aspect since 3 month, having a history of unknown bite. Then he gradually developed with cellulitis (vranashotha) over right leg. He complained of pain, slough, seropurulent discharge, difficulty in walking. He was taken allopathic treatment for that and cellulitis subsides but wound remain. He took treatment for the wound but did not get relief. Hence patient got admitted in Shalyatantra department Government Ayurved College and hospital Osmanabad for further management and treatment.

PAST HISTORY:

No any h/o DM, Koch‘s, surgical illness and drug allergy.

{The any H/O not significant with the patient disease.}

PERSONAL HISTORY:

1. Appetite – good
2. Diet - mix diet
3. Sleep – normal
4. Bowel – normal
5. Micturation – normal
6. Addiction – Tobacoo chewing since 30yrs

GENERAL EAXAMINATION:

General condition of the patient was good,

- Pulse -90/min, regular
- BP-136/70 mmhg
- RR - 20/min, regular

No evidence of icterus, pallor and lymphadenopathy.

SYSTEMIC EXAMINATION:

RS – AE=BE, clear

CVS – S1S2 normal, no abnormal sound added

CNS – conscious & oriented

P/A – soft and non tender

ASTHAVIDH PARIKSHA

Ashthvidh Parikshan of the patient was done and it is found normal.

INVESTIGATION: Day 1

Hb %-14.7 gm%

BSL (Random)-90 mg/dl

BT-1.37॥/min CT-4.5॥/min

Urine routine- nil

HBsAg and HIV- negative

LOCAL EXAMINATION:

- Wound size – 20cm-10cm-3cm
- Site – right leg anterior aspect
- Discharged – seropurulent present
- Foul smelling – mild
- Margins – irregular and inflamed
- Edges – fibrosed edges
- Tenderness was present with surrounding induration and local rise in temperature.
- Granulation :Unhealthy granulation
- Base – Bone (tibia)
- Slough – present

MATERIAL AND METHODS:

1. After the assessment wound wash with freshly prepared Triphala kwatha. Wound was cleaned and dressing with Panchavalkal ointment done daily.
2. Dressing was changed daily, total duration for treatment was six week and during the treatment assessment was done on 1stweek, 2nd week, 3rd week, 4thweek,5thweek,6thweek.
3. Patient was advised to take freshly prepared Guduchi patra swaras -20ml two times in day daily.

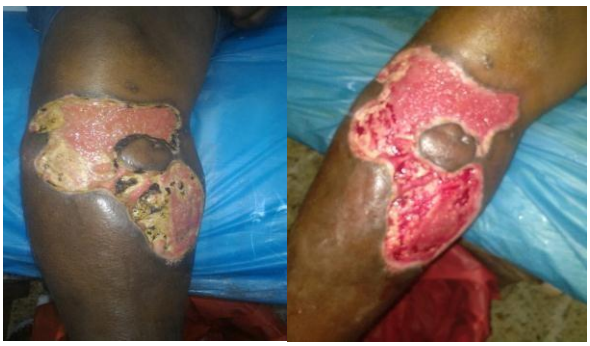
ASSESSMENT CRITERIA:

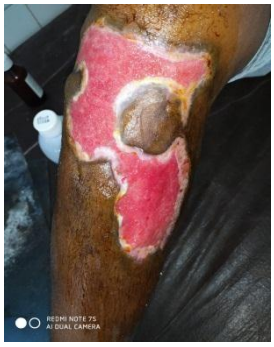
Subjective criteria:

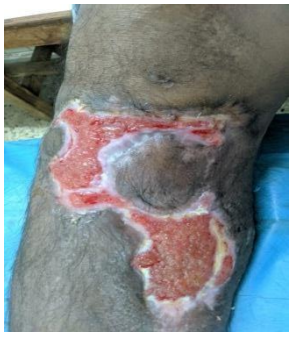
Parameter	Grade					
Size	Baseline-100%	4-75%	3-50%	2-25%	1-5%	0-0%
Unhealthy Granulation	Baseline-100%	4-75%	3-50%	2-25%	1-5%	0-0%
Discharge	Baseline-100%	4-75%	3-50%	2-25%	1-5%	0-0%
Odor	Baseline-100%	4-75%	3-50%	2-25%	1-5%	0-0%
Slough	Baseline-100%	4-75%	3-50%	2-25%	1-5%	0-0%
Pain	Baseline-100%	4-75%	3-50%	2-25%	1-5%	0-0%

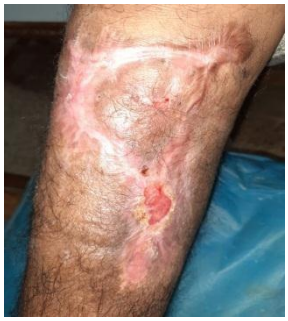
Objective criteria:

Wound was measure during course of treatment and photographic image were also taken during every week of treatment for six week.









RESULT:

It was observed that the deep seated slough satrted to resolve from the base and the wound started to heal after one week. At this time he reports less discharge,odour and pain. The clinical feature of vrana was improved by the sixth week(fig.no6). wound get completely closed, skin arround affected area became pinkish and healthy tissue appeared. At the end of sixth week discharge, foul smell was completely stop. At the follow up of six months patient reports no sign of recurrence of symptoms.

Progression report

Parameter	Grade					
	1st week	2nd	3rd	4th	5th	6th
Size	Baseline-100%	4	3	2	1	0
Unhealthy granulation	Baseline-100%	3	2	1	0	0
Discharge	Baseline-100%	3	2	1	0	0
Odor	Baseline-100%	2	1	0	0	0
Slough	Baseline-100%	3	2	1	0	0
Pain	Baseline-100%	2	1	0	0	0

DISCUSSION:

In the current report the patient had been treated for chronic wound with allopathic medicine for 1 month but he reports no improvement from that treatment.

By Ayurvedic therapies like local application and oral administration of herbs as given below wound healing achieved by us within six week.

TRIPHALA:

Triphala consist of three herbs- Amalakai (Embilica oficinalis), Haritaki (Terminalia chebula) and Bibhitaki (Terminalia bellirica). It balances all three dosas [6]. Triphala has properties of vrana shodhan and ropana [7] when made in kwath and used as a wound cleanser, it reduces infection and pain [8]. Studies have shown that Triphala possess antioxidant, anti-inflammatory, analgesic, antibacterial and anti-mutagenic qualities. Triphala reduces bacterial count and enhances wound closure with improved levels of collagen, hexosamine and uronic acid [9].

PANCHAVALKAL:

Panchavalkal is combination of five herbs –Vata (Ficus bengalensis Linn), Udhumber (Ficus glomerata Roxb), Asvatha (Ficus religiosa Linn), Parisa (Thespesia populenoides) and Plaksa (Ficus locarbuch-ham) having properties of shodhana (cleaning) and ropana

(healing) of wound [10]. Individual drugs and in combination have kashaya (Astringent) dominant and useful in management of vrana (wound) as well as shotha (inflammation) [11] .

GUDUCHI:

Guduchi patra swaras used for wound healing because it possesses Dhatuvardhan, Rasayana and Tridoshashamak [12]. It also has anti-inflammatory, antimicrobial, immunomodulatory, antiulcer activity, antioxidants and anti-allergic properties [13]. Aqueous extracts has been also reported to influence the cytokine production, mitogenecity, stimulate and activation of immune effector cell [14].

CONCLUSION:

The result of this study shows complete resolution of chronic wound after six week of treatment. There were no adverse events throughout the management and healing accrued uneventfully. The mode of treatment was to be cost effective, safe and easy to implement.

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ROLE OF AYURVEDA IN THE MANAGEMENT OF VATASHTHILA W.S.R TO BENIGN PROSTATIC HYPERPLASIA - A REVIEW STUDY

***Dr. Shalu**

P.G. Scholar Shalya Tantra Department Of Shri Krishna Govt, Ayurvedic College , Kurukshetra , Haryana.

****Dr. Shriniwas Gujjarwar**

H.O.D. And Professor Of Shalya Tantra Department Of

Shri Krishna Govt, Ayurvedic College , Kurukshetra , Haryana.

Abstract

IN Ayurvedic texts vatashthila (benign prostatic hyperplasia) is a one of major urinary disorder described in mutraghata(low urine passage due to obstruction).It is a very major problem in geriatric group(occurs usually in 60-70 years).In contemporary science conservative and surgical treatment are given to the patients.the symtoms are similar to the benign prostatic hyperplasia in modern science.The aim of the study is to focus on varous studies done on vatashthila (BPH) between 2016 -2021 .The studies was done on efficacy of kanchnar guggulu,Trikantakadi guggulu,Veertarnadi gana kshaya ,Varun bark decoction(kwath) ,ushiradi taila uttarbasti and dhanyak gokshur ghrita yavkshar uttarbasti in the management of Vatashthila(BPH).These studies may be very beneficial to improve the tonicity of urinary bladder and to reduce the size of the prostate.

Introduction:

Sushruta the father of Indian surgery mentioned the urinary disorders in the Mutraghata 1(suppression or obstruction of urine).Mutraghata is made uo of two words i.e. mutra and aghata obstruction of urinary passage.Vatashthila has a similar symptoms to benign prostactic hyperplasia.BPH is an ailment commonly encountered in aged males 2.it is a proliferative process that involves both stromal and epithelial elements of the prostate.it includes obstructive and irritative urinary symptoms ,urinary retention3 .The main symptoms of benign prostatic hyperplasia (BPH) is nocturnal frequency (5-10 times during the night) followed by day and night due to ineffective emptying of the bladder, urgency (urgent desire to pass urine),hesitancy, pain due to cystitis in suprapubic and loin region . The standard line of treatment of BPH is surgery.It is very complicated in old age .hence preffered line of treatment is conservative.In Ayurvedic classics the cause of urinary disorder is vata dosha4.Sushuruta mentioned the uttar basti is best treatment for vata dosha. Decoction kalka ghee, avaleha, milk, kshar, alcohol, upnah, sweda, uttarbasti5 , sneh virechana should be used in all types of urinary disorders.

Material and Method:

Collection of data from ayurvedic books ,modern books related to surgery ,research articles on vatashthila from internet manually.various beneficial studies are found on veertarvadi gana kshaya,varun kwath,kanchnar guggulu,and ushiradya tail basti in the management of vatashthila(BPH).

Observation And Result:

R.Rakesh,Sharma PK,Gupta AK et.al.in their study ―A Clinical Study To Evaluate The Efficacy Of Trikantaktadi Guggulu In The Management Of Vatasthila w.s.r.to Benign Prostatic Hyperplasia‖.They focused on the effective result of this herbal drug on symptoms of vatasthila like hesitancy and decrease in post residual volume.The therapy is effective without any adverse effect.

Meena et.al in their study ― A Clinical Study Of Veertarvadi Gana Kshaya and Basti Therapy In The Management Of Vatasthila w.s.r.To Benign Prostatic Hyperplasia‖. In their study they concluded that oral use of veertarvadi gana kashaya and matra basti of mulka taila are clinically proven as safe and effective therapy.It may be effective in imbalanced level of sex hormone and may imrpve bladder muscle tone.

Shaikh.P,Bansode.R. et.al in their study ―Management of Vatasthila by Varun Bark Decoction(Kwath):A case report‖ .In their study they concluded that varun bark decoction is very effective in to improve the symptoms of BPH Bind.A, Wasnik.S et.al in their study ― A Case Study Of Ushiradi Tail Uttarbasti On Vatashthilla w.s.r. To Benign Prostatic Hyperplasia‖.This study is very effective to give the symptomatic relief and need to be further research on more number of cases for its validation.

Javed.D et.al. in their study ― A Clinical Study To Evaluate The Effect Of Kanhcnar Guggulu and Veertarvadi Gana kashaya In The Managemant of BPH‖.In their study excellent action of virtarvadi kashaya and kanchnar guggulu due both on hormohal and physiological level due to their anti-androgenic and anti –inflammatory .The effect of drug is also on prostatic size.

Shailsh.Jaiswal et.al in their study A Clinical Study On Dhanyak Gokshur Ghrita Yavakshar Uttarbasti In The Management Of Mutraghata w.s.r. To Benign Prostatic Hyperplasia.In their study they scientifally proven the symptomatic relief in BPH.The prostate size and residual volume were decreased.The trial drug and procedure are effective for treating BPH.

Discussion:

Benign Prostatic Hyperplasia is a very burning problem in geriatric populationThe symptoms which disturb life of a patients are dribbling/scanty micturatin, urgency of micturition hesitancy,nocturnal which are similar to symptoms mentioned in Mutraghata like Vatakundalika,Mutrasanga,Vatashthilla, and Mutrasteela.

Conclusion:

The result of review of The research studies performed on vatashtheela that the vatashtheela or mutroghata(BPH) can be treated very effectively by Ayurvedic drugs and uttarbasti drug like kanchnar gugglu ,Trikantakadi vati and ushiradi uttarbasti varun bark decoation(kwath), veertarvadi gana kashaya, Dhanyak gokshur yavakshar uttarbasti are proved to be better improvement to reduce the size of prostate and post residual volume .The effect of many studies ara also beneficial to improve the symptoms like scanty micturation, hesitancy, nocturia and pain. So Ayurvedic formulation have a great effect in the treatment of mutraghata without any adverse effect .

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EXPLORING SHALYATANTRA AS PROMISING AND INOVATIVE SOLUTION IN GERIATRIC ORTHOPEDICS

***Dr. Shilpa Premchand Badhe**
HOD,Professor.Shalyatantra
SMBT Ayurved College & Hospital Dhamangaon, Tal Igatpuri Dist.- Nashik
Ph.No.- 9689339928

ABSTRACT

To grow older is a natural process. And to have orthopedic problems with growing age is natural thing. There are nearly 12 crore people in India who have crossed the age of 60 years and this figure will increase around 3 % of total population. This population suffers various biological changes and have increased chances of injury,dislocations,joint problems, osteopenia, osteoporosis, rheumatoid arthritis, fractures etc.

Ayurved is Science of Life and believes in prevention rather than cure. Due to current busy and unhealthy life style,we are not able to follow, Dincharya,Ritucharya to stay healthy.

We come across plenty of patients suffering from above mentioned conditions. Here we can think upon vitiated Vatadosha and Asthikshya. Currently there are treatments available as calcium supplements or joint replacement surgeries which are not enough to take total and less expensive care of patients. We have various plants,Rasakalpa and Lifestyle modalities which we can explore as promising and innovative solution in Geriatric Orthopedics.

Keywords-osteopenia,osteoporosis,Dincharya,Ritucharya,Vatadosha,Asthikshya, Rasakalpa.

INTRODUCTION-

Importance of the Topic

According to the World Health Organization, osteoporosis is second to cardiovascular disease as a global health problem as it is silent and insidious in nature. According to WHO statistics, one out of eight men and one out of three women in India are affected by osteoporosis [(1)]

Significance of vayu वामयामु फरबु ं वामवाबमु धाबताु

शयीरयणाभ ्| वामर्वश्बु वमभदं

सवं प्रबवाबमु श्चु कीर्तबत ्॥३॥

Vayu is life, vayu is strength, vayu mainstays living organism, the same vayu is verily the universe, and hence the Lord Vayu is praised.(2) अव्माहतगर्तमस्ब म स्थानस्थ् प्रकृतौ स्स्थत् | वाम्ु स्मात्सोऽधधकं जीवेद्वीतयोग् सभ्ा् शतभ ्॥४॥

When normal (non vitiated) vayu is at its abode with unobstructed (free) movement, is responsible for long lifespan of hundred years devoid of diseases.(3)

The common clinical problems with increasing aging are degenerative musculoskeletal diseases. The degenerative diseases cover bone, cartilage, muscle, ligaments / tendons and nerves, such as osteoporosis and related fractures, osteoarthritis and sarcopenia, etc.

Asthi Dhatu Kshay- Depletion of Asthi Dhatu

As per Ayurved, Bone tissues are nourished by healthy fat tissue. Hence oral administration of various oils or ghee is advised in Ayurveda, in conditions like osteoarthritis.Asthi Dhatu is inversely proportional to Vata dosha. And in old there is

Already dominance of vata dosha, which causes the pathology of Asthi kshay and vice versa.Being dhatu mala-kesh,lome,nakha,shmashru,Dvija ,are also in phase of kshay.Also the subject faces shrama means tiredness and sandhishaithilya means joint derangement or instability.

It is observed that there are plenty of patients suffering from the signs and symptoms of Asthi-Kshay in our population. Hence there is need to work upon this topic

Osteoporosis is the condition where bone become thin or brittle. It is a result of low calcium, protein, or hereditary and unhealthy lifestyle.The body does not form sufficient Asthi dhatu, or reabsorbs existing asthi dhatu into the body. It is most common amongst elders.

The one third population above 60 years in male suffer from this condition.This condition is also common among post-menopausal women or in those who have undergone surgical removal of the ovaries and uterus. Surgical removal of ovaries causes oestrogen secretion levels to fall which turns the activity of osteoclasts rises, which reabsorbs phosphate and calcium from the bone cells to body. In return bone density can reduce by over 4% during the following 5-8 years. As a result, the risk of bone damage is highest among the elderly.However, ageing is not not the only cause of osteoporosis. Conditions such as rheumatoid arthritis chronic kidney disease can also increase risk levels. In addition, poor lifestyle factors such as drinking, smoking, or drug abuse can certainly affect your risk levels.

Considering all these things an expert,covering the risk and easy solutions for the better life. We can customize a solution which suits the best. An Ayurvedic treatment protocol

can provide a sustainable and long-term solution. It has a broad spectrum of treatments with of natural supplements, herbs to get above existing risk factors. The following Ayurved remedies can help us to overcome or fight the condition.

Basti Karma

It is the introduction of liquid-based ayurvedic medication, such as herbal oils or decoctions, through rectal route. This balances the vata dosha, which is predominantly located in the colon and bones. Further, basti karma can cure upto 80 types of vata dosha disorders.

His The literal translation of basti is _to stay‘. This implies how the oil or decoction remains where it is, for its absorption and circulation of tissues . This heals tissues and eliminates dosha-centric toxins. There are some specific basti therapies which act on bone strength.

Nirahua Basti

Nirahua basti or decoction enema helps to treat musculo-sketelal ailments such as arthritis, muscle stiffness, and nerve-related disorders. It can help with constipation and indigestion, flatulence, amenorrhea and infertility.

This method uses medical kashaya , honey and oils to treat ailments. It also balances contaminated vayu (air) and toxins from the body, which helps to restore optimal bone strength. As this takes on a sustainable approach towards bone health, these medicines can also increase lifespan.

Anuvasana Basti

In this method, you introduce fat or ghee for longer periods via rectum or bladder, or uterus. This is one of the most effective basti treatments for bone tissue and muscle relaxation, and to soothe the mind. Similarly, treatments such as Abhyanga or Koti Basti can increase the strength and range of body joint movements.

Another different basti types vary in their benefits. For example, you can go for shodhan basti (cleansing), Lekhan basti (scraping), Snehan (oleation) and Bruhan (nourishments).

Sesame seeds

This is a popular Ayurvedic medicine for bone health as it includes minerals, such as copper, magnesium, and calcium. In fact, one daily serving of sesame seeds (33 grams) contains 22 of your calcium RDI. Most importantly, it is high in omega-3 fats and protein content which can aid bone tissues. Many people use it as an antioxidant and vitamin rich addition to their diet.

You can reap the health benefits of this seed in multiple ways. For instance, try soaking sesame seeds in a glass of water overnight. Strain the concoction and drink it the next morning. This is a fool proof and hydrating method which is most common during hot summer months.

Alternatively, you can sprinkle these seeds over salads during winters. This can either be roasted or plain. Apart from the nutritive component, it adds taste and crunch to your meals.

Ayurveda recommends sesame seed oil massages for bone health. Massage warm sesame seed oil over your body for at least 15 minutes. This method will allow the oil to penetrate into multiple layers of your skin. After that, take a bath to wash the oil off. Practice this method for at least a month to seek best results.

Milk

Milk is said to be Poornanna in Indian Culture.

Milk is a calcium-rich beverage and a vata-pacifying remedy. Thus, it is one of the most effective remedies for bone health. Full-fat milk is also helpful to growing children and teenagers, pregnant and nursing women, and recovering patients. Make sure to boil the milk first. After that, you can add warming spices such as cardamom, ginger, turmeric, or black pepper. Likewise, you can add raw honey to balance out excessive dosha content in your body. Each of these are Ayurvedic superfoods which can boost the existing benefits of milk.

Yoga and Meditation- It will be helpful to gain muscle strength, and mind calmness and strength.

The first stage of osteoporosis is Osteopenia; otherwise treated on time results in osteoporosis.

Symptoms and signs of Asthi kashaya:

i. -Pathological Bone cracks ii. -Pain and also

swelling in bones and joints iii. -Dry skin iv.

-Weak point

v. -Osteomyelitis vi.

-Rickets etc.

Ayurvedic treatments for osteoporosis: Therapies

varies in four phases

1) To deal with the cause

2) To stimulate the jatraagni and also bhutagni
3) Vata calming therapy
4) Bone nourishing therapy and Rejuvenation

For achieving this following tips will be useful

i. Consume fresh, healthy and balanced & nourishing food ii. Milk ought to be the indispensable part of diet plan as is the straight resource of the calcium

iii. Abhyanga or Self oil massage therapy iv. Arrange for

Basti as per Bala of Patient. v. Light workout everyday vi.

Take morning sunlight bath vii. Avoid use dry, spicy,

inappropriate diet plan viii.Timely examination with

Ayurvedic doctors/consultants

With all these treatment protocols we can serve for better and pain free growing age with all activities done independently. Many of Ayurved colleges are already doing these treatments. But now its time to get connected and set scientific protocols which can stand the new modern scientific standards. **References-**

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REVIEW OF KATIGATA VATA (LUMBAR SPONDYLOSIS) WITH VIDDHAGNIKARMA W.S.R TO PAIN IN GERIATRIC AGE-GROUP EXPLAINING PRESENT MODERN TECHNIQUES

***Dr Shrikant Wakudkar**
P.G Scholar, ShalyaTantra Department,
Government Ayurveda College & Hospital Osmanabad, Maharashtra, India
Email – drparvlax@gmail.com

ABSTRACT

Due to changes in life style, stressful busy life and continuous sitting workload, lack of exercise and improper diet. In 21st century low back pain due to lumbar spondylosis (Katigatavata) is being common in geriatric age group. Day to day life and work is affected by lumbar Spondylosis (Katigatvata). Surgical Procedures like spinal decompression nerve root decompression & spinal Fusion are mostly providing short term outcomes, yielding conflicting results & benefits are questionable in degenerative changes to spine, But Ayurveda has blessed us with multiple, effective and harmless medication, viddhagnikarma is one of them. Viddhagnikarma is combined procedure of viddha karma and Agnikarma it involves the treatments with needle viddhakarma and special designed electric cautery machine.This treatment is also self- sufficing and doesn‘t need any other internal medicine to support.

KEYWORDS : lumbar spondylosis, katigatvata,viddhagnikarma

INTRUDUCTION

Katigatvata is a Vatvyadhi,Vatvyadhi has been described in classical text Charak Samhita [1]. It has been correlated in present study with Lumbar Spondylosis due to similarity in clinical manifestation and pathogenesis.Lumbar Spondylosis is a common old age related degenerative condition in the area of lumbar spine with gradual formation of bony overgrowth (osteophytes) predominantly those at anterior, lateral and less commonly posterior aspects of the superior and inferior margins of vertebral bodies.[2] Low Back Pain affects approximately 60-85% of adults during some point in their lives. Lumbar Spondylosis is responsible for about 10% of all the back pain conditions means that Lumbar Spondylosis affects 7% of population.[3]

As of 2005, lower backpain ranks as number one cause of disability in individuals under the age of 45 years. There is no satisfactory treatment for lumbar spondylosis in modern medicine. In medicine, analgesic drug is used which gives temporarily relief.

Surgical treatment has lots of side effect, it will be dangerous to patient‘s life and also patient may cause paralysis after surgery[4]. In Ayurveda Acharya Sushruta said that Agnikarma and viddhakarma is better than any other treatment in Ayurveda.[5]

Acharya Sushruta has explained,when diseases are not cured by Aushadh-ShastraKshara,then it can be cured by Viddhagnikarma and Viddhakarma. Viddh viddhagnikarma,is a fusion procedure of both Viddhakarma and Agnikarma. Viddhvi ddhagnikarmais very effective procedure in acute and chronic pain management.

Acharya Sushruta indicated agnikarma and viddha ,form of siravedh in various diseases of skin, Snayu, Asthi and Sandhigata.He also explained that the diseases treated with Viddhagnikarma modality don't reoccur.

To understand viddhagnikarma, one must cleared the concept that Sira always carry all Doshas i. e Vata, Pitta and Kapha, along with Rakta.When viddhakarma is performed, the most Vitiated dosha is expelled out first as explained by Sushruta. In viddhakarma, very minute quantity of blood oozes out. Though the quantity of the oozing blood is very low, yet may be sufficient to expel out the most vitiated Dosha,at the same time , Viddhagnikarma is done with the help of specially design electric cautery machine known as viddhagniyantra which produce heat, this procedure is known as viddhagnikarma

Viddhagnikarma considered as best therapy to pacify these Doshas because Agni possesses Ushna, Tikshna, Sukshma, Aashukari Gunas, which are anti Vataja. Due to Ushna, Tikshna, Sukshma, Ashukari Guna it removes the Srotavarodha and pacify the vitiated Vata and maintain equilibrium. It increases the Rasa Rakta Samvahana (Blood circulation) to affected site. More blood circulation flushes away the pain producing substances and patient gets relief from pain. So, in many diseases the vitiated Doshas-Vata along with Kapha may be released out after viddhagnikarma, resulting in Vednashanti .

Definition of Lumbar Spondylosis:

Definition: Lumbar Spondylosis is a common age-related degenerative condition in the area of lumbar spine with gradual formation of bony overgrowth (osteophytes) predominantly those at anterior, lateral and less commonly posterior aspects of the superior and inferior margins of vertebral bodies.[6]

Anatomy of Lumbar Spine:[7]

Lumbar spine consists of five lumbar vertebrae, there are elastic intervertebral disc between each vertebra that allow the vertebrae to move while also acting as springs & shock absorbers. Bony processes keep the lumbar vertebrae in close contact with each other. Their contact surfaces have cartilaginous layer allowing them to function as joint. The nerve roots extend through nerve root canals located between the lumbar vertebrae.

Additionally, the vertebrae are held together by a powerful system of Ligaments. Muscles attached to various points on spinal column provide stabilization of torso as well conscious movements.

Causes of Lumbar Spondylosis:[8]

1. **Age:** Spondylosis is an aging phenomenon, with the increasing age bones & ligaments in the spine wear & tear occurs, leading to bone spurs (Osteoarthritis).
2. **Genetics:** It is a risk factor, as many people in same in a family have Spondylosis due to strong genetic pre-disposition.
3. **Spinal Injury:** It is a risk factor, as injuries cause intervertebral discs to herniate.
4. **Lifestyle:** Spondylosis is seen in more often in people who have sedentary lifestyle with lack of exercise.
5. **Occupation:** It is more seen in people having a job that requires repetitive or weight –bearing movements that involve the spine.

Secondary Causes: Psoriatic Arthritis, Mental health condition like Anxiety or depression, Obesity. **General Features: [9]**

Most people with age related spondylosis don not experience any symptoms. Some people have symptoms for a while but then go away. Sometimes a sudden movement can trigger symptoms. **Severe symptoms include:**

1. **Pain:** In Lumbar spondylosis pain is often felt in the Axial spine, the location of these degenerative changes is not surprising as nociceptive pain generators were identified in facet joints, inter-vertebral discs, nerve root dura & myofascial structures.
2. **Neurologic Claudication:** It includes lower back pain, numbness when standing & walking, these symptoms improve in sitting & supine positioning.
3. **Ataxia:** Due to poor co-ordination there is loss of balance & difficulty in walking.
4. **Sensory Loss:** The voluntary control of Bladder & bowel is lost.
5. **Weakness:** Always Weakness is felt in the hands or legs, due to muscle spasm.
6. **Stiffness:** Lower back stiffness is a common complaint in patient of Lumbar spondylosis, as patient finds difficulty while bending & grinding or popping feeling is felt while moving the spine.

Examination of Spine:

1.Inspection:

Attitude & deformity are seen

Position of head, shoulder, scapula

Gait

Swellings, Sinus, Skin

Spine (Kyphosis, Lumbar Lordosis, Scoliosis is looked out for)

2. Palpation

It has to be done in standing & supine position

Skin Temperature

Vertebral Tenderness- Localized or General

Paraspinal spasm & muscle tenderness

Feel for Peripheral pulses

Palpate groin & abdomen for abscesses

3.Neurological Examination

Various tests are performed to carry out neurological testing of power.

SLRT

Crossed SLR: Severe root irritation is indicated when straight raising of the leg on the affected side produces pain on the affected side.

Bowstring test: It is sciatic stretch test

Schober's test: Assesses the amount of Lumbar Flexion **Complications:**

1.Spinal Stenosis

2.Scoliosis

3.Prolapsed Intervertebral Disc

4.Cauda Equina Syndrome

5.Chronic Debility

Modern Management of Lumbar Spondylosis: [10]

1.Medicinal Treatment

2.Surgical Treatment

3.Pain Alleviating Techniques

Medicinal Treatment

1.Non steroid anti-inflammatory drugs (NSAIDS), such as ibuprofen are given for pain relief.

2.Muscle relaxants plays an important role to reduce spasms.

3.Topical creams may be applied at the site of pain for relief.

4.Steroid medications either in pills or as injections, that combines steroids & anesthetic medication.

2.Surgical Treatment

Surgery is advised in patients if pinched nerves result in serious numbness, weakness, or loss of bowel or bladder control & if the damage is likely to get worse without surgery.

1.Facetectomy

2.Foraminotomy

3.Laminectomy

4.Laminotomy

5.Corpectomy (or Vertebrectomy)

3.Pain Alleviating Techniques

Keeping Physical Active: Low impact exercise such as swimming or walking, can help with maintaining flexibility & strengthening the muscles that support the spine.

Improving Posture: Slouching, for example can make the pain worse.

Physiotherapy: A physiotherapist may suggest specific exercises or massage.

Back Support: Patients are advised to choose a chair or mattress that supports their back better.

Rest during periods of Inflammation: When symptoms are troublesome, try resting for a while.

-Acupuncture

-Chiropractic treatment -

Ultrasound treatment.

-Electrical stimulation

Ayurvedic Management of Lumbar Spondylosis:[11]

1. Yogaraj Guggulu, Maha yogaraj Guggulu, Trayodashang guggulu,Simhanada Guggulu, Vatari Guggulu, Dhanvantara Vati-Relieves pain & Inflammation

Gandha Taila,Kseerbala,Guggulu Tikataka Ghrita-Hydrates & rejuvenates the disc & joints.

2. Lakshadi Guggulu, Kukkuntandatwak bhasma,pravala & mukta pishti-Strengthens the bone.
3. Narayana Taila,Murivenna ,Karpuradi taila,Dhanvantara taila-Used for Abhyanga which improves Blood circulation,Strengthens the muscles & Alleviates the vitiated Vata Dosha.
4. Ashwagandharishtha & Balarishtha to strengthen nerve roots.

Dasha Moola & Lasuna Ksheer paka –Rejuvenates the disc, vertebra & joints.

External Treatment of Lumbar Spondylosis in Ayurveda:

Being a holistic method of treatment,Ayurveda also offers non-medicinal treatments for Lumbar Spondylosis.

Abhyanga: Full body & localized massage it tones up the muscles & improves blood circulation.

Swedana: Fomentation by Patra Pinda sweda, Bashpa Sweda, Nadi Sweda, Churna Pinda Sweda.Sudation reduces pain & stiffness in Ligaments,muscke spasm.

Kati Vasti: Retention of Oil & Decoction enemas.

Upanaha Lepa: Local Application of Medicated paste or poultice, to relieve pain, stiffness & numbness. It Retains warmness around the affected area & sustains good circulation of Blood

Viddh Karma: With the help of Needle No-26, Suchivedh procedure is done at the point of extreme tenderness with result s in instant Pain & stiffness relief. [12]

Agnikarma: Indirect method of Agnikarma is done with the help of Panchdhatu shalaka on the Both lateral sides of Lumbar Spine. [13]

Viddhagnikarma: A technique where needle no 26 is used for viddha karma and with the help of specially designed electric cautery machine.

CONCEPT OF VIDDHAGNIKARMA

Thogh viddhagnikarma procedure is clearly not mentioned in the ayurvedic text book but but Agnikarma and viddha as have some references in the text which are given below.In Sushruta Samhita, Acharya Sushruta has explained that when the diseases are not cured by Aushadh-Shastra-Kshara, then it can be cured by Agnikarma. Viddhagni karma means application of Agni (heat) directly or indirectly with the help of different Yantras (instruments) to relieve the patient from specific disease. Dalhana, commentator of Sushruta, mentioned it as Agnikrit karma means the action carried out by Agni. Acharya

Sushruta indicated Viddhagnikarmain various diseases of skin, Snayu, Asthi and Sandhigata. He also explained that the diseases treated with Viddhagnikarma modality don't reoccur. In this study we used specially designed electric cautery machine to provide heat internally as bore of this needle are good conductor of heat.In Agnikarma, the part or tissue is burnt with the help of special materials.

It shows Shaman effect on both Vata and Kapha dosha. The Ushna guna of Viddhagnikarma is opposite to both Vata and Kapha Doshas. That's why it cures the Vataja and Kaphaja disorders.According to Ayurveda, every Dhatu (tissue) has its Dhatvagni. When it becomes low, diseases related to the particular Dhatvagni menifests. In such conditions, Viddhagnikarma works by providing external heat to the Dhatvagni, which helps to digest the aggravated Doshas and cures the disease.

The local thermotherapy increases the local tissue metabolism which leads to the excretion of toxins and unwanted metabolites. Heat may stimulate lateral spinothalamic tract (SST) that leads to the stimulation of descending pain inhibitory fibres (DPI). It releases endogenous opioid peptide which binds with opioid receptors at Substantia gelatinosarolandi which inhibits the release of P-substance (pre synaptic inhibition) and blockade of transmission pain sensation occur.[15]

There is need of efforts to develop Viddha karma as a non-invasive technique with evidence based practice. Also, make Viddha karma at its finest level with understanding the efficacy in specific conditions and phases

OBJECTIVE:-

- To evaluate the efficacy of viddhagnikarma in various diseases .
- To achieve immediate relief of pain in various diseases
- To evaluate the improvement of the Ayurved modalities and techniques .
- To reduce the cost of management of acute and chronic pain
- To avoid the adverse effects of modern medicines (e.g. steroids and NSAIDs).
- To avoid the modern surgical operative in its management

INDICATION

-Diseases indicated for Agnikarma and Raktmokshan

-Geriatric age between 60 to and above

-Pain associated condition

-Acute or chronic

PROCEDURE OF VIDDHAGNI KARMA

This procedure can be divided in three steps -

1. Poorva Karma

2. Pradhana Karma

3. Paschat Karma

1. POORVA KARMA -

This procedure is carried out by thoroughly cleaning the affected area properly, now marking should be done according to max tenderness point . drape the proecedure area.

2. PRADHANA KARMA

The disposable needle was used only once on the patient and was discarded after it was used once. This is main procedure of Viddhagni Karma. First sterilized needles (26 g surgical needles) are kept according to marked areas, and the needle should be pierced about 0.5 cm through the skin. After that, the modern technology device i.e., "Viddhagni Yantra" is administered to each needle shaft for 4-5 seconds, depending upon the pain threshold and capacity exhibited by the patient. This cycle of Viddhagni Karma is repeated two or more times after 3-5 minutes' interval depending upon the capacity of individual patient.

3. PASCHAT KARMA

Needles are to be removed now and area should be cleaned up properly. Now patient is asked to rest for an hour. If needed proper mixture of madhu and ghee is to be applied proper healing as mentioned by Acharya Sushruta for Samyakadagdha patients.

Viddhakarma is a modified form of Siravedha. The Siravedha is called as Shalyachikitsaardha means" the half part of the Shalya chikitsa". Acharya Sushruta has explained Vedhan of specific Sira in specific diseases. Siravedhan is done on the Sira that are clearly visible. But in case when they are not clearly visible, Viddha karma can be done as explained. When Siravedha is performed, the most Vitiated dosha i.e., Rakta is released, similarly in Viddha Karma the most vitiated Dosha is released. So, Viddha Karma to the specific points of body may release the Vataavrodha and ultimately pain will be decreased. This immediate reduction in pain is of no cost and will be as miracle to the patient.There is need of efforts to develop Viddha karma as a non-invasive technique with evidence based practice. Also, make Viddha karma at its finest level with understanding the efficacy in specific conditions and phases.

As Viddhagnikarma is combination therapy viddha is a another form of siravedha for hidden or adrushya sira In Sushruta Samhita, ―Siravyadha Vidhi Adhyaya‖ has been explained in which Vyadana of specific Siras in specific diseases is mentioned.

The Word „Vyadhya‟ has so many meanings, which can be as following:

-To bore a hole to drain.

-To let out entrapped Vayu.

-To let out entrapped circulation in blood vessels -To

let out fluid in Jatodaka and Mutravruddhi.

-To let out pus in Vidradhi.

Interpretation of these results is as follows:

-It removes the obstruction of blood vessels and establish circulation

-It reduces the load of pathogens circulating in blood -

It lets out the most vitiated Dosha first.

Mode of action of Agnikarma by electric cautery in viddhagnikarma [16]

Agni possesses Ushna, Tikshna, Sukshma and Aashukari Gunas, which are opposite to Vata properties. Physical heat from red hot Shalaka is transferred as therapeutic heat to diseased dhatu. From Twakdhatu this therapeutic heat acts in three ways.

First, due to Ushna, Tikshna, Sukshma, Ashukari Guna it removes the Srotavarodha, pacifies the vitiated Vata and maintains their equilibrium.

Secondly, it increases the Rasa Rakta Samvahana (blood circulation) to affected site. The excess blood circulation to the affected part flushes away the pain producing substances and patient gets relief from symptoms.

Third, therapeutic heat increases the DhatwAgni, so metabolism of Dhatu becomes proper and digests the Amadosha from the affected site and promotesproper nutrition from Purva Dhatu.

Further it can be endorsed that the therapeutic heat goes to the deeper tissue like Mamsa Dhatu and neutralizes the Sheeta Guna of Vata and in this way vitiated Dosha come to the phase of equilibrium and patients got relief from the symptoms

CONCLUSION:-

-Viddhagnikarma in Ayurveda is a special therapeutic procedure which can be useful in various disorders and also at an emergency

-Viddhagnikarma is Pain Management procedure described in Ayurveda as Agnikarma and viddhakarma.

-From ancient period this procedure is performed in different place by different names.

-Modern Cauterisation is nothing but the Modified Agnikarma only

-It is Superior treatment than all other procedure.

-After Viddhagnikarma there is no chance for re occurence of disease as it is combination of two procedure. **Lumbar spondylosis(Katigatvata)**

Sr No.	Assessment criteria(subjective)
1	Pain
2	Radiation of Pain
3	Numbness
4	Stiffness
5	Bending and weight lifting
6	Sitting
7	Standing

Objective Criteria

SR No.	Assessment criteria(objective)
1.	SLRT
2.	Tenderness

Effect of viddhagnikarma in katigat vata

Sr.No.	Symptoms	% Relief
1	Pain	82.895
2	Radiation of pain	80.882
3	Numbness	85.714
4	Stiffness	81.429
5	Bending and weight lifting	84.058
6	Sitting	83.33
7	Standing	81.94
8	SLRT	80.882
9	Tenderness	80.769
10	**Avg. % Relief**	82.43

VIDDHAGNI MACHINE AND ITS INSTRUMENTS

CONCLUSION:

Low Back pain due to Lumbar spondylosis is a very common problem in the modern world affecting day to day life more seen in in geriatric group . In the modern medicine there are medications such like Steroids, Surgery which has its own limitations & complications, In Such a scenario treatment module explained in Ayurveda for Katigata vata shows Considerable relief in reducing severe symptoms of patient & has tremendous power in Spine Management & can enlighten its path, such that it can prove beneficial for mankind.

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छेद्यभेद्यलेख्यवेध्यएष्यआहार्यविस्राव्यसीव्यमिति। (सु.सू.५/५)

कूठारिकात्रिहीमुखारावेतसपत्रकाणिव्यधनेसुचिच्च।(सु.सू.८/४)

यथाकुसुमपुष्पेभ्यपुर्वस्त्रवतितथासिरासुविद्ध्वासु दुष्टमग्रेप्रवर्तते।(सु.शा.८/१२)

स्नेहादिभिक्रियायोगे न तथालेपनेर्पि

यान्त्याशुव्याधयशान्तियथासम्यकसिराव्यधाता। (सु. शा.८/२२)

तत्रयासुश्मस्त्रविद्धाव्यक्ताअसृकस्त्रवति।(सु.शा.८/१९)

मांसलेषुअवकाशेषुयवमात्रंयवमात्रंशस्त्रनिदधातअतोअगन्येष्वर्धयवमात्र

त्रिहीमात्रं व त्रिहीमुखेनअस्थयामुपरिकुठारिकायाविध्येनअर्धयवमात्रं॥(सु.शा. ८/९)

SCOPE OF SHALYATANTRA IN GERIATRIC WOUND CARE (LITERATURE REVIEW)

***Dr.Shweta Ramchandra Mhatre**

****Dr.Veerendra Meenkire , ***Dr.Amit Shedge**

Lrp Ayurvedic Medical College And Hospital, Islampur

Abstract :-

Ageing process and it's responsible causative factors are remained matter of curiosity since era . Sushruta explain aging process starting from birth to death as "Aayu". It classified in three stages i.e balya, madhyama and jaraavastha. According to Sushruta Jaraavastha is considered 70 or above 70. Wound is a type of injury which happens relatively quickly in which skin is torn, cut or puncture. In geriatric patients diabetic wound , ulcerative wound, non healing wound are found more commonly. Breakdown of skin with ulcer and cronic wound formation is frequently found in old people. Type of ulcer include pressure ulcer, vascular ulcer and neuropathic ulcer. Agantuk vrana and sharirik vrana these two types of vrana are described by Sushruta. As Shalyatantra is a prime branch of Ayurveda it includes different types of procedure for wound care. In geriatric population some times cause of wound remains undetected specially in rular area. In Shalyatantra different upakarma described by Sushruta also Sushruta explain vranitopasana (care of wounded patient) which is very useful in geriatric patients.

Introduction :-

Ageing is the process of physical, psychological and social change in multi dimensional aspects. The world population of the elderly is increasing. In india 3.8% of the population are older than 65 yrs of age.

Ayurveda is a science of life. ―Shalyatantra‖ is a prime branch of Ayurveda. It includes procedure of excision of different type of straw , pieces of wood, stone, dust particles, metallic article, soil, piece of bone, hair, nail, pus, obstructed labour, dustavrana; blunt instruments, sharp instruments; kshara; agnikarma.

A wound can be defined as a break in the continuity of the skin. Wound healing normally occurs in predictable sequence [the inflammatory phase; the proliferative phase; the remodelling phase (maturing phase)].

In geriatric their skin has decreased in water content, tensile strength and junctional integrity between dermis and epidermis. Dry skin is common condition in older people causes pruritus which leads to skin infection.

Aayu is a process starting from birth to death.According to acharya sushruta aayu is classified in three stages i.e. balya, madhyama and jaraavastha. Whereas jaraavastha is considered to be 70 or above 70.[1]

Vrana :- Acharya Susruta had explained two types of vrana. [2] :-Aagantujvrana and Sharirvrana Acharya Susruta explained lakshana of dushtavrana in detail.

Constricted, expanded, hard, soft, excessively elevated, depressed, excessively cold, excessively warm, blackish, reddish, yellowish, whitish discoloration, fierce looking, sloughing, putrefying pus, tortuous tracks, multiple pockets, unpleasant appearance, unpleasant odor, painful, burning sensation, worm, swelling.

Definition of wound — A wound is discontinuity or break in the surface epithelium. A wound is simple when only skin is involved .it is complex when it involves underlying nerves , vessels, tendon etc [3]

An ulcer is a discontinuity of the skin or mucous membrane which occurs due to the microscopic death of tissue .

Type of ulcer :- Traumatic, venous, arterial, neurogenic **Processes which take place in wound healing:-** the inflammatory phase; the proliferative phase; the remodelling phase (maturing phase).

Factors affecting wound healing :-

Age :- healing is delayed in old age ; Debilitation results in malnutrition, In diabetic patients, Generalized infection – pus formation, Poor blood supply, Local infection, Faculty technique of wound **closur**

Material and Methods :-

Acharya sushruta described 60 types of upakarma for wound care [4]

Apatarpana	Vamana	Sivana	Taila	Krushnakarma	Bruhana
Aalepa	Virechana	Sandhana	Raskriya	Pandukarma	Vishaghna
Parishek	Chedana	Pidana	Aavachurana	Pratisarana	Shirovirechana
Abhyanga	Bhedana	Shonitstapana	Vranadhupana	Romsanjanan	Nasya
Sweda	Darana	Nirvapana	Utsadana	Romapaharana	Kavaldharana
Vimlapana	Lekhana	Utkarika	Avasadana	Bastikarma	Dhuma
Upanaha	Yeshana	Kashya	Mrudukarma	Utarbastikarma	Madhusarpi
Pachana	Aaharana	Varti	Darun karma	Bandha	Yantra
Vistravana	Vyadhana	Kalka	Kshara karma	Patradana	Aahar
Sneha	Stravana	Sarpi	Agnikarma	Krumighna	Rakshavidhana

From these 60 upakarma kashaya (decoction), varti (wicks), kalka (paste), taila, raskriya and avachurna (dusting powder) are used for vrana shodhana (cleaning) and Ropana (healing) of vrana. [5]

Elder people are not capable to endure pain, by using various aalepa which is mentioned by acharya sushruta are useful to reduce pain in elder people. Different vrana vedanahar yoga is also useful to reduce pain in geriatric. In abrasion wound shal, Arjuna, sarjadi chala churna is useful to reduce pain. [6]

To reduce pain in inflamed wound ghruta, taila, dhanyaamla, mansrasa and vatahar avshadi are used.Malnutrition are more found in elder people leads to risk of infections and delayed wound healing so intake of mansrasa, ghruta, snehapana in elders are useful to gain immunity. [13]

Darana karma (spontaneous bursting by the local application of medication) is indicated in vrudha.[7]

Healing delayed in older people . Dry skin , loss of elasticity is commonly found in geriatric , this causes pruritus which leads to skin infection. Various taila, ghruta, kalka yoga , shodhan taila which are described by acharya sushruta are used in dushtavrana also prakshalana dravya also used in dushtvrana . [8]

Wound with foul smelling, sodden and slimy are cleaned by kashya. varti can be used in wound with foreign body.Krumighna dravaya and dhupana dravaya are useful to prevent infection .

Wound healing delayed because of diabetic mellitus. Acharya sushruta described these wound as prameha pittika. To treat wound caused by prameha pittika acharya sushruta mentioned various vrana prakshalana dravya, shodhana taila. [9]

According to acharya sushruta agnikarma and ksharkarma are contraindicated in geriatric but he also mentioned these procedures can be done in emergency condition and in disease where it indicates. [10]

Acharya sushruta also described vranitopasana (care of wounded). [11]

Bala, satmya, sarata are decreased in elder as compared to adult . They are unable to endure pain also their immunity found to be decreased, to care of such wounded patient vranitopasana are very useful. In vranitopasana vranitagar, daivik upchara, dhupana , shirodhara, aahar – vihara are described.

Kandu, shotha, pida and strava caused due to divaswap so it is contraindicated in wounded peopt.

Vatadi sevana, virudha aahar-vihar, are prohibited in vranit. Mansa rakta kshaya, dhatu kshaya, balaya kshaya are found in geriatric, they have mandaagni so they are unable to digest properly which causes ajirna, vitiated vatadisha, vrana shotha, pain, strava, daha. Elderly people have different nutritional requirements compared to the normal adult population. With increasing age people become more vulnerable to malnutrition. Aahar vidhi for vranit which are described by Acharya sushruta are very useful in geriatric.[12]

Discussion :- Healing is delayed in older people. Dry skin or xerosis is a common skin condition in older people causes pruritus leads to skin infection. Acharya sushruta described various taila, ghruta, kalka yoga, shodhana taila for dushta vrana. Prakshalana dravya also used in vrana. Malnutrition very commonly found in geriatric as acharya sushruta mentioned aahar-vihar vidhi in vranitopasana are very useful in geriatric to maintain their health and immunity. To treat wound caused by prameha pittika acharya sushruta mentioned various vrana prakshalana dravya, shodhana taila which can be use in geriatric with diabetic wound. According to acharya sushruta agnikarma and ksharkarma are contraindicated in geriatric but he also mentioned these procedures can be done in emergency condition and in disease where it indicates.

Conclusion:-

The one of the major factor affects the wound healing is age . In geriatric diabetic wound, ulcer wound, non healing wound are found commonly. To prevent such wound and for wound care acharya sushruta described various upakarma, vranitopasana, bandha. As these procedures are safe and easy to carry out as compared to allopathy drugs and risk of resistance and health issues also descreasd. **References :-**

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SCOPE OF SHALYA TANTRA IN PARASURGICAL PROCEDURES IN GERIATRICS

***Dr. S. Tamilarasan**
PG Scholar,
****Dr. C. Thyagaraja**
Professor And HOD,Department Of Shalya Tantra,
Ayurveda Mahavidyalaya And Hospital, Hubballi.

Abstract

Ayurveda is the ancient science of health and well-being rooted through various branches in this Shalya tantra which deals with Surgical and parasurgical techniques for the management of various disease. Parasurgical procedures like Agnikarma, Ksharakarma, Jaloukavacharna etc., have been practiced successful in management of are curing the disease with minimal surgical intervention and gives long term benefits in chronic illness. Anushalya karma is carried out in those condition where shastra karma cannot be done in older age group. Geriatric patients fall under vulnerable and sensitive population It has been rightly said by acharya Sushruta that Sukumara patients are not fit for surgical interventions However he has elaborately discussed about various para surgical interventions that can be practiced in Sukumara patients. Advancement of age usually creates degenerative physical, mental problems in the individual which needs long term management and maintenance. These conditions can be taken care of by doing Anushalya procedure which can be undertaken for immediate cure for the old age patients without any side effects. Some of the diseases such as RujaPradhana Vatavyadhi like Sandhigatavata, Manysthamba and Dustavrana, Arshas, Bhagandara, Nadivrana, are commonly treated by Anushalya procedures in geriatric conditions. The use of oral medications like analgesics and steroids in old age may produce adverse effects such as gastritis, hyperacidity, and sometimes renal failure. In Geriatrics condition kshara karma, Agnikarma, Raktamokshana are major approaches which involves utilization of Kshara, Agni, Jalouka for therapeutic purposes which are less complicated also. Considering importance of these three approaches, present paper summarizes various aspects related to Agni karma, Jaloukavacharana, Ksharakarma practices in Geriatrics.

Keywords: Shalyatantra, Parasurgical, Anushalya, Geriatrics.

INTRODUCTION

Ayurveda deals with physical, psychological as well as spiritual wellbeing of an individual. Shalya Tantra is that branch of Ayurveda which deals with Shalya kriya, shastra kriya, and yantra kriya.

GERIATRICS – A branch of medicine dealing exclusively with the problems of ageing and disease of the elderly. Ayurveda addressed geriatric health issues under a heading ‗JARA' - the term indicates the loss in the period of life span. The parasurgical procedures in shalya tantra are mentioned for the management of various diseases and these procedures are widely used in geriatrics.

JARA - GERIATRICS

In Ayurveda, old age is described over 60 years of age as per Acharya Charaka1, whereas over 70 years according to Acharya Susruta2. Jara is classified into Kalaja Jara and Akalaja Jara3.

Kalaja Jara – ―Parirakshana krita‖

Akalaja Jara – ―Akale jata iti Akalaja‖

―Jeeryant anyo angani iti jara‖

―Shaithilya apadakavastha Bhedi‖

ANUSHASTRA KARMA – PARASURGICAL PROCEDURES

Acharya Sushruta described concept of Anushastra Karma as important modality of Shalya Tantra which involves parasurgical procedures without surgical instruments. As per Acharya Sushruta various types of Anushastra used in Shalya Tantra including Twakasara, Kancha, Jalauka, Agni, Kshara, Shephalika, Shaka, Patra, Kareera and Baala4. All the types of Anushastras are important but Kshara karma, Agnikarma and Jaloukavacharana are major approaches widely used in various conditions.

AGNIKARMA

Agnikarma is the application of heat directly or indirectly to the affected part by using different materials and it deals with the action of thermal energy in the human body. It is a potent and minimally invasive parasurgical procedure which has wide application in chronic conditions as well as in emergency management and it helps in Vata and Kapha pradhana vyadhi's.

According to Sushruta, if Agnikarma is used in such diseases, there will be less chances of their recurrence and it will be successful in curing the diseases, which are incurable by drugs and surgery. There are different materials that are used such as Pippali (Piper longum), Aja Shakrut (goat excreta), Godanta (Gypsum), Shara (arrow), Shalaka(metal rod), Kshaudra (honey), Guda (jaggery), and Sneha (oil/fat) for performing Agnikarma5.

PAIN MANAGEMENT WITH AGNIKARMA

Pain is defined as ―an unpleasant sensory and emotional experience, which is generally associated with actual or potential tissue damage.‖ In Ayurveda, the word

―pain‖ can be correlated with Ruja, which is caused due to vitiation of Vata. Acharya Susruta mentioned shoola and shotha leads to the diminution of the movement at joint involved in Sandhigata vata6 and this is most commonly present in old age because of prakrutik vata vriddhi. In such conditions, Agnikarma gives good relief by Increasing metabolism, Increasing blood circulations, Decreasing pain perception and Relaxation to the muscle

RAKTAMOKSHANA

Rakthamokshana is the procedure which helps to eliminate vitiated dosha that accumulate in the body. Jalaukavacharana is Ashastrakruta Raktamokshana and mainly indicated in Pittaja and Raktaja vikaras7. Lord Dhanvantari with Jalouka in his hand indicates the importance of Jaloukavachrana in Ayurveda.

―Dehasya rudhiram mulam‖8

WOUND MANAGEMENT WITH JALOUKAVACHARANA

Jaloukavacharana is indicated in Dusta vrana, vatarakta, arsha, twak roga9 mainly in old age persons because these are the conditions where vitiated rakta causes pain to the persons. Wounds with inflammation, hardness, reddish black in color, tenderness and are treated by Jaloukavacharana. In wound management Jalauka is generally applied in initial phase of wound progress. Jaloukavacharana acts as analgesic, anti-inflammatory, thrombolytic, increases the blood circulation in the body without causing any discomfort to the patient.

KSHARA KARMA

Kshara is a medicine obtained from ash of different medicinal plants and it is of two types Paaneeya kshara and pratisarneeya kshara10. Pratisaraneeya kshara mainly employed for external purpose while Paneeya kshara employed for internal purpose. Arshas, Bhagandara, Dusta vrana, Nadi vrana and Baahya vidradi are some conditions where external Kshara Karma can be recommended while Gulma, Udara, Ashmari and Abyantara vidradhi, etc. are some conditions where internal Kshara Karma can be used[11].

WOUND MANAGEMENT WITH KSHARAKARMA

Pratisaraniya kshara is mainly used in wound management, Acharya Sushruta clearly mentioned those vrana lakshana like utsanna mansan (elevated margin and hyper granulation tissue), kathinana (hard consistency), Kandu yukta (severe itching), Chirotthitan (chronic wounds) and unhealthy wounds are indicated for pratisaraniya kshara karma[12].

In wound management it is mainly used for shodhana (debridement). Ushna and tikshna properties of kshara are helpful in wound debridement. various anorectal disorders

such as Arsha(Haemorrhoids), guda bhramsha (Rectal Prolapse) which are seen in elderly due to loss of muscle tone are indicated in pratisaraniya kshara.

DISCUSSION

- A large number of geriatrics patients attend surgical OPDs for wide range of problems.
- Most of the conditions are associated with management of pain and deformity due to degenerative changes.
- Old age patients are susceptible to complications when subjected to surgery,Wherein parasurgical procedures like Agnikarma, kshara karma and jaloukavacharna outshine by minimising the complications.
- Agnikarma as a parasurgical procedure has been effective and quick in management of pain and improves the mobility of joints.In Jara avastha, there will be Vatavriddhi and in turn there will be increase in Sheeta Guna, which causes stiffness and pain. When Agnikarma is done, it increases Ushnata and subside Sheetaguna and thus may help in giving relief to the patients.
- There is delay in healing of wound because indivisuals are undernourished in jara kala, so there is decrease in the normal body metabolism.
- Jalaukavacharana helps reducing Srava/exudate by pacifying the vitiated Doshas and it also pacifies pitta and Rakta Dosha.
- Kshara is used for the management of chronic wounds,because it is doing lekhana, sodhana and ropana karma.
- These parasurgical procedures are easy to use, economical and it requires minimal invasion and it can be used in geriatric condition.

CONCLUSION

Geriatrics patients are sensitive group of population and are vulnerable to complications if not managed properly. All surgical conditions cannot be employed in this age group, however parasurgical procedures can be done. There must be awareness about its benefits in general public and Comprehesive use of parasurgical procedures will have good scope and excellent results in geriatric conditions.

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EFFICACY OF TRIPHALAMASHI WITH HONEY IN THE MANAGEMENT OF BEDSORES

***Dr. Vishnu Priya**

INTRODUCTION

The prevalence of pressure ulcers particularly in the frail older adult population continues to be high and very costly especially in those suffering from chronic diseases and has brought a higher awareness to comprehensive, preventive and therapeutic measures for treatment of pressure ulcers. Internal risk factors highlighted by comorbidities play a crucial role in the pathogenesis of pressure ulcers.

The antimicrobial activity of Triphala mashi observed the inhibition of growth of Gram-positive and Gram-negative bacteria. on application of Triphala mashi with honey found very effective in wounds lined by slough tissue like in Complex Anal fistula and Bedsores.

Wound healing property of Triphala mashi is mentioned in classical texts like Bhaishajyaratnavali, Bhaishajyaratnakaram, Sharangadhara Samhita. Triphala mashi indicated in Upadamsha vrana , where more necrotic tissue, slough is present. . A Study was conducted on Triphala mashi, exhibited comparable antimicrobial activity in relation to Triphala against all the microorganisms tested (in Escherichia coli, Klebsiella Pneumoniae, Pseudomonas Aeruginosa, Staphylococcus aureus etc) by using agar gel diffusion method with the broad range of concentrations of 50–1500 mg/ml of the extract, the growth of all micro organisms was inhibited. Madhu has vranaropaka properties as per the principles of the sixty upakramas of vrana management in SushrutaSamhita.

Madhu is believed to act by _pacifying‘ the three vitiated Doshas, by multiple actions attributed to its madhura rasa, kashaya uparasa,Ruksha Guna, Sheeta virya, Madhura Vipaka and Sukshma Marga Anusari (ability to permeate in microchannels) Prabhava. Madhura Rasa gives nutrition to the tissue, which helps in granulation tissue formation, while Kashaya Rasa provides Lekhana(scrapping) which helps in disloughing, preparing the wound for healing. Thus, Madhu is having excellent properties to heal the wound by its shodhana (purification), Ropana (healing), and Sandhana (union) actions. **Key words** -Triphala mashi,Bedsores,Anti-microbial activity,Vrana upakrama

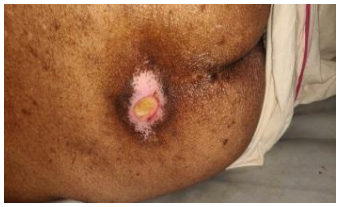
MATERIALS AND METHODS

SLNO.	DETAILS	SUBJECT
1.	**Age /sex**	**75/MALE**
2.	**Presenting complaints**	**K/C/O PARAPLEGIA SINCE 1 YEAR &ON Treatment Gradually he developed with GRADE 3 BEDSORE Over the Lower back area**
3.	**Associated complaints**	**Pus discharge +++ Oozing +++**
4.	**Past history**	**NIL**
5.	**Drug history**	**Pakshagatha Chikitsa**
6.	**Medicines given**	**LOCAL APPLICATION OF TRIPHALA MASHI WITH HONEY AT BED TIME;DAILY FOR 15 DAYS.**

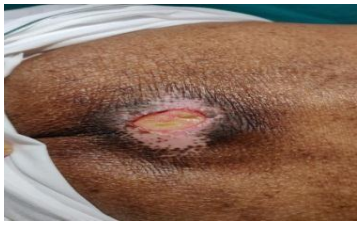
- There is no direct reference of Triphala mashi in Bedsores.
- Lakshanas of Dushtavrana and upadamsha vrana is having some similarity hence,we can adopt this concept under Bedsore management. दहेत ्कटाहे त्ररपरां सा भषीं भध ु संमता ु । उन्नदंशे प्ररेन्नोऽमभ ्साद्मो योन्नमर्त ण्णं ।।

(Sarangadhara samhitha Utharakhandam 11/106)

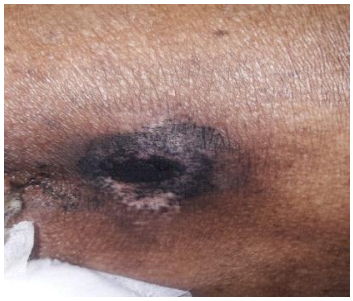
RESULTS



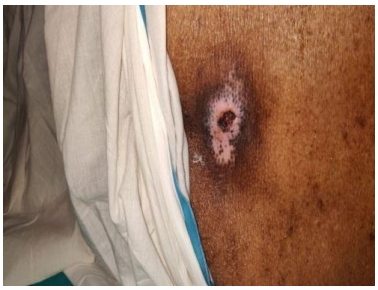
GRADE 3



Inflammation reduced



L/AwithTriphala mashi &
Honey daily at bed time



ON 15 DAY
Inflammation reduced &
Wound healed

DISCUSSIONS

Name of the drug	rasa	guna	veerya	vipaka	prabhava
Haritaki. Terminalia chebula	pancharasa, alavana, kashayapradhana	laghu, rooksha	ushna	madhura	tridoshahara
Bibhitaki. Terminalia bellirica	kashaya	rooksha laghu	ushna	madhura	tridoshahara

Amalaki. Phyllanthus emblica	madhura amla katu thiktha kashaya	laghu rooksha	sheetha	madhura	Vayasthapana Chakshushya Rasayana Tridoshajit Vrishya

Madhu has vranaropaka properties as per the principles of the sixty upakramas of vrana management in SushrutaSamhita. Madhu is believed to act by ‗pacifying' the three vitiated Doshas, by multiple actions attributed to its madhura rasa, kashaya uparasa,Ruksha Guna, Sheeta virya, Madhura Vipaka and Sukshma Marga Anusari (ability to permeate in microchannels) Prabhava. Madhura Rasa gives nutrition to the tissue, which helps in granulation tissue formation, while Kashaya Rasa provides Lekhana(scrapping) which helps in disloughing, preparing the wound for healing. Thus, Madhu is having excellent properties to heal the wound by its sodhana (purification), Ropana (healing), and Sandhana (union) actions

CONCLUSION

- The contemporary management of pressure ulcer involves usage of dressing and topical agents that arrest microbial growth &promote healing.On an average the financial burden caused due to Pus can exceed Rs1,377 crore
- Wound healing property of Triphala mashi is mentioned in classical texts like Bhaishajyarathnavali,Bhaishajyarathnakaram,Sharangadhara Samhitha
- Application of Triphala mashi with Honey is very effective in Bedsores management.

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AYURVEDIC MANAGEMENT OF GERIATRIC WOUND
(Sirajanyadushta Vrana)

***Dr. Zarikar Nilima Manglesh**
(Final Year P.G.Scholar)
****Dr. Shekokar Anantkumar**
(Professor And Hod)
*****Dr. Borkar Kanchan**
(Associate Professor)
Dept Of Shalyatantra,S.V.N.H.T's Ayurved College, Rahuri,
Dist- Ahmednagar, Maharashtra, India.
Mob No.8308342161
Email:Drnilima01@Gmail.Com

INTRODUCTION

- Ageing is a fundamental process that affects all our systems and tissues. The rate and magnitude of change in each system may differ person to person, but total body decline is an inevitable part of life for everyone.
- Approximately half of the decline in physiological functions with age has a genetic basis and the reminder of age related change is the consequences of lifestyle, primarily physical inactivity that can account for the other half of the decline with age.
- Coupling sedentary lifestyle with inadequate nutrient intake, excess body weight and variables such as smoking and excessive alcohol intake, the biological decline is more precipitous and greater in magnitude.

•DISCUSSION AND MATERIALS METHOD

- It is a common clinical observation that wound healing is defective in diabetes mellitus Diabetic foot wounds remain open for prolonged periods. The ulcer develops a rim of raised epithelium with some pale granulation tissue in the center. The wound infection spreads inside the foot and all along plantar fascial planes. Wound healing occurs as a cellular response to injury and involves activation of keratinocytes, fibroblasts, endothelial cells, macrophages, and platelets. The major factors in the genesis of diabetic foot syndrome also contribute to the defective healing. They are atherosclerosis, renal failure, neuropathy and the micro circulatory failure. There are cellular, metabolic, and biochemical factors that have been found to contribute to altered tissue repair in diabetes mellitus. Many growth factors and cytokines released by these cell types are needed to coordinate and maintain healing. Ischaemia is the major factor that causes insufficient oxygen

delivery to the wound and impairs healing. Uraemia and pedal oedema impairs healing in diabetes. The basement membrane thickening may also make leukocyte migration difficult.

- Over 100 known physiologic factors contribute to wound healing deficiencies.
- They include:
- Decreased or impaired growth factor production.
- Decreased or impaired angiogenic response.
- Decreased or impaired macrophage function. Decreased or impaired collagen accumulation.
- Decreased or impaired epidermal barrier function.
- Decreased or impaired quantity of granulation tissue.
- Decreased or impaired keratinocyte and fibroblast. migration and proliferation. Number of epidermal nerves. Poor expression of matrixmetall oproteinases and their inhibitors.
- HyperglycAemia also leads to the production of pathologic by-products. Hyperglycaemia leads to "advanced glycosylation end products"(AGES), which are large aggregates of aldoses covalently bound to reactive amino groups which impairs wound repair and healing. AGEs may also lead to collagen cross-linking and inhibit normal collagen degradation. There are distinctive phases in wound healing."
- The injury phase The inflammatory phase o The proliferative, phase
- Phase of complete epithelialization.
- Chronic wounds with lack of progression to heal occurs due to arrested phase in the sequence of normal healing. The wound fails to close.
- The diabetic foot ulcer is a chronic wound. Hyperglycaemia may be toxic to fibroblasts and neutrophils, resulting in greater susceptibility to infection. Cytokines and growth factors play a very important role in the process of acute wound healing. It is an area of future research with great potential to identify novel
- molecular level therapies.
- The typical diabetic wound is a sequel of tissue necrosis due to sepsis. The foot ulcer is usually due to neuro-or neuroischaemic changes in the foot which are fore runner of sepsis. In acute conditions drainage of pus or fasciotomy may be required. The infected wound needs extensive, repetitive debridement. Good limb elevations

and rest will heal majority of the wounds. In some chronic leg ulcer occurs. Many treatment modalities are described.

- The famous saying that The foot ulcers in diabetics are not non healing ulcers but they are maltreated ulcers' is true. Local applications must be safe for the wound. Most of the antiseptic solutions are dangerous to the wound. Wound management is divided in to four types:

o Protective dressing Trophic ulcer with sepsis o

Acute septic wound

- Indolent non healing wound o Neuro ischaemic foot
- Novel therapies.
- A moist wound environment is important for wound healing to occur. There is, however, limited evidence that any specific dressing type enhances velocity of healing of chronic diabetic wounds. Dressings should prevent further trauma, minimize the risk of infection, and optimize the wound environment. Factors guiding dressing selection include wound type, presence of exudate, surrounding skin conditions, likelihood of reinjury, and cost. Characteristics of available dressings include those designed to achieve absorption, hydration, conformability, and other special needs. Dressings do not replace debridement or off-loading. o Not take up too much space.

o Provides a moist wound healing environment o Be capable of absorbing large quantities of exudates.

o Should not block the drainage of the wound. Be easily lifted or removed for
regular inspection

• without adversely affecting the wound. Whilst simple gauze dressings are often employed by clinicians, there are newer forms of dressing available. Dressing selection should promote a moist wound environment that minimizes trauma and risk of infection. Modern, moist dressings used for diabetic foot ulcers include foams, calcium alginates, hydrogels, hydrocolloids, and adhesive membranes. Alginate, foam, hydrogel and hydrocolloid dressings have been designed to absorb wound exudate and control the level of wound hydration.

o Protective dressing o

Trophic ulcer with sepsis.

• Debridement of callus can significantly reduce pressure at the callus site by approximately 30%. It eliminates sepsis under the callus which is the fore runner of foot loss.

o Acute septic wound

• Management of acute septic wound is as per the general surgical principles. Debridement and Drainage are the corner stones in the treatment.

•DECREASE IN WOUND BACTERIAL CONTAMINATION

• Topical antiseptics are used to reduce the microbial load in both intact skin and in wounds. Antiseptics have been used in preference to topical antibiotics because of concerns about the development of bacterial resistance. However, the cytotoxic effects of these agents on the host's dermal and epidermal cells may affect the wound healing process. A quantitative measure of bacterial load is shown to be correlated with rate of diabetic foot ulcer healing. There are many explanations as to how bacteria can impair wound healing. Superoxidized solutions may represent an alternative to the currently available antiseptics for the disinfection of skin and wounds. SOS has not been shown to induce cytotoxicity in fibroblast cultures in vitro and does not interfere with the wound healing process.

•DRAINAGE

• Adequate drainage of purulent fluid and reduction of tissue edema are essential in the prompt healing of wound. Vacuum assisted drainage is a useful device in promoting good wound drainage. In the diabetic foot, the application of a continuous negative pressure of 125 mmHg to the wound has been found useful in promoting healing (KCI Medical Ltd, 2005). The VAC therapy unit is used to treat postoperative wounds after minor amputations or surgical debridement. A literature search identified a pilot trial undertaken by McCallon et all dedicated to the post-surgical diabetic foot; a large. randomised, controlled trial undertaken by Armstrong. et al in 2005 to determine whether VAC is clinically efficacious in treating open amputation wounds of the diabetic foot. The studies demonstrated an increase in rate of wound healing, a reduction in the time to complete wound closure and a trend towards a reduction in the need for further surgery..

•DEBRIDEMENT

• Common methods of debridement for diabetic foot ulcers include: o Mechanical irrigation with saline solution o Use of autolytic agents • Biological (Larval therapy)

• In the diabetic foot wound MRSA colonization is very common (40% of S. aureus isolates were MRSA). In a preliminary study by Frank L. Bowling, the potential of larval therapy was found to eliminate MRSA colonization of diabetic foot ulcers. The removal

of nonviable, contaminated and infected tissue from the wound area has been shown to increase the rate of healing of diabetic foot ulcers. These observations were confirmed in a prospective trial where sharp debridement may be associated with better outcomes in patients with diabetic foot ulcers. Smith conducted a systematic review to determine the effectiveness of debridement methods for diabetic foot ulcers. Five randomized controlled trials (RCT's) were identified: three involved the use of hydrogels. and two involved the use of sharp debridement. The results suggest that hydrogels were significantly more. effective than gauze or standard care in healing diabetic foot ulcers. Saap and Falanga developed a debridement performance index to assess the adequacy and performance of any surgical debridement undertaken. The Index was shown to be an independent predictor of wound closure making it potentially a useful predictive tool for determining ulcer healing outcome following debridement. Debridement of callus can significantly reduce pressure at the callus site by approximately 30%.

. INDOLENT NONHEALING WOUND

- Management of chronic indolent ulcer is difficult. Many agents that promote wound healing are used. They are

1. Collagen has been found to hasten healing and reduction of ulcer area. But two new studies evaluated the impact of a collagen wound dressing on the healing or reduction in wound area of foot ulcers in people with diabetes. No statistically significant differences were found in wound area reduction or in complete healing although multivariate analysis indicated that the overall treatment effect on ulcer areas was significantly in favour of the collagen-alginate dressing compared with the gauze dressing, when ulcer duration was included in the analysis. Thus collagen dressings do not appear to promote better ulcer healing than saline-moistened dressings

2. Phenytoin Powder

- Phenytoin has been used topically for many years to enhance the healing of chronic wounds .Its wound healing promoting effect has been attributed to many mechanisms, including increasing fibroblast proliferation, inhibiting collagenase activity, promoting collagen disposition, enhancing granulation tissue formation, decreasing bacterial contamination, reducing wound exudate formation, and up-regulating growthfactor receptors .

- Chronic diabetic foot ulcers remain difficult to manage. Topical application of phenytoin has been used successfully in the management of diabetic foot ulcers.

- conducted a prospective matched case-control study, 100 patients comparing daily topical phenytoin powder with a dry sterile occlusive dressing, in a total of 100 patients (50 in each group). Patients' ulcers were debrided at baseline, and antibiotics were

provided as necessary. Groups were matched for age, sex, ulcer area and depth and chronicity at baseline, although there is a non significant trend to small ulcer size in the phenytoin group. Ulcers with gross cellulitis, deep slough, ischaemic gangrene or tropic ulcers were excluded. Ulcers were assessed using an impression scale A-E, where A denotes deterioration and E denotes complete healing. At 35 days, ulcer healing was significantly better with phenytoin on the impression scale. The mean tine to complete healing in the phenytoin powder group was 21 days compared to 45 days in the occlusive dressing arm ($p<0.05$). The overall percentage reduction in ulcer area was also greater in the phenytoin group ($p<0.005$).

3. Silver Dressing

• Silver has been used for centuries. Originally, silver vessels were used to preserve water, and its use for medicinal purposes is documented from 750 AD. The first scientific papers describing the medical use of silver have been attributed to Credé. In 1965, Moyer were the first to report the antibacterial activity of compresses soaked with 0.5% silver nitrate applied to extensive burns. The efficacy of silver nitrate against Pseudomonas aeruginosa was viewed as an important benefit because this micro organism was considered a primary cause of death in patients with extensive burn wounds. There are now a number of silver-based dressings on the market that aim to improve healing primarily by controlling the wound bio-burden.

•4. Living Human Skin Equivalent

• Living human skin equivalents (HSES) which are produced by using tissueengineering techniques, have been successful in treating chronic wounds, such as venous ulcers. Although their precise mode of action is not known, it is believed that they act by both filling the wound with extracellular matrix and inducing the expression of growth factors and cytokines that contribute to wound healing. Like human skin, graftskin has both an upper epidermal and a lower dermal layer and contains human skin cells. The dermal layer is formed by human fibroblasts (dermal cells), which organize the provided structural protein and produce additional matrix proteins. The epidermal layer is formed by prompting human keratinocytes (epidermal cells) first to multiply and then to differentiate to replicate the architecture of the human epidermis. Unlike human skin, graftskin does not contain structures such as blood vessels, hair follicles, or sweat glands or other cell types such as Langerhans' cells, melanocytes, macrophages, or lymphocytes. Graftskin has been shown to produce all cytokines and growth factors that are produced by the normal skin during the healing process.

• Graftskin has been shown in previous studies not to elicit an immunological response from the host, and this finding was confirmed in this study. Graftskin was also not associated with any other adverse effects, such as wound infection and cellulitis, when

compared with the control group. Graftskin application carries a considerable cost and should therefore be reserved for chronic foot ulcers that have failed to respond to the currently available standard care

•5. Growth Factors

• Role of Growth Factors Growth factors have been found to accelerate tissue repair. Various types of growth factors are used in healing the chronic indolent diabetic foot ulcers. Many are in the process of trials. The selection of cases and protocol are well defined. The clinical trials testing the efficacy of growth factors have been relatively well designed. Growth factors used are derived from the platelets, bioengineered tissues or available by recombinant techniques. Commercially available growth factors are useful in problem wounds they are PASTO but they are quite expensive.

• The first trials focused on platelet releasates. The patient's own platelets are collected and stimulated to release proteins from their alpha granules. The alpha granules contain numerous growth factors and these growth factors accelerate tissue repair. Another "natural" growin source of growth factors is from cultured cells and bioengineered tissues. The first cells be tested were cultured keratinocytes. They are found to be useful in the treatment of all sorts of chronic dermal wounds. Mansbridge et al described the use of fibroblasts cultured in 'dermal' matrices for the treatment of chronic diabetic foot ulcers.

• Recombinant growth factors are tried and found useful in diabetic foot ulcers. Though more than ten growth factors are described Regranex is widely used. Regranex is recombinant human platelet-derived growth factor (rhPDGF-BB) and is approved for the treatment of chronic diabetic wounds. Several well-designed, prospective, randomized trials have been performed and suggest that Regranex is effective. Steed et al published the first study to show that Regranex significantly improved healing in diabetic ulcers. PDGF stimulates and recruits macrophages, neutrophils, and fibroblasts; stimulates angiogenesis and stimulates granulation tissue formation, wound contraction, and wound remodeling.

• Becaplermin gel is used in non ischaemic, clean wounds. It is applied once daily. With appropriate wound. care, becaplermin gel has been shown to increase the incidence of complete wound closure (50% versus 35% for placebo) and decrease the time to complete wound closure (86 versus 127 days). Clinical usefulness of adjunctive G-CSF treatment is equivocal but is associated with a reduced rate of amputations. Hence using G-CSF should be considered, especially in patients with limb threatening infections.

• Proteases play a critical role in many of the physiologic processes of wound repair. However, if their activity becomes uncontrolled proteases can mediate devastating tissue damage and produce chronic non healing wound. Proteases in wound fluid have deleterious effects on granulation tissue, growth factors and cytokines. Therefore, an

effective therapeutic approach for chronic wounds would be to modify this proteolytic imbalance and reduce the activities of neutrophil-derived elastase, plasmin, and matrix metalloproteinase. This can promote granulation tissue formation and stimulates wound! repair.

- Many commercially available growth factors have been studied. They have variable wound healing potential. It is always worth the trial but cost considerations hinder their routine use. Advances in Molecular biology and bio technology are sure to get us many more molecules that significantly help wound healing.

•Novel Therapies-

- There are no randomized controlled trials supporting the use of hyperbaric oxygen therapy to treat neuropathic diabetic foot wounds. New technologies include growth factors, living skin equivalents, electrical stimulation, cold laser, and heat. Recombinant platelet-derived growth factor for the topical treatment of diabetic foot ulcers shows a modest benefit if used with adequate off-loading, debridement, and control of infection.

- A recurrent foot wound is defined as any tissue breakdown at the same site as the original ulcer that occurs >30 days from the time of original healing. Any new tissue breakdown within 30 days of healing at the same site is considered part of the original episode.

•CONCLUSION

Wound healing is most important challenge in today‘s scenario in medico science in the diabetic patients. Here above given discussion which very important play role in the management. As well as in other science like Ayurveda, Homeopathic, Unani etc. Which have also given knowledge of these wound healing. So wound healing in geriatric is very important for today.

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CHALLENGES AND OPPORTUNITY OF SHALYA TANTRA IN CONTEMPORARY ORTHOPAEDIC PRACTICES

***Dr. Aaditya Karve**

1st Year PG Scholar Department Of Shayla Tantra,

Parul Institute Of Ayurveda

****Dr. Harish Daga**

Assistant Professor, Department Of Shayla Tantra,

Parul Institute Of Ayurveda, Vadodara, Gujrat.

INTRODUCTION

Ayurveda is a complete science of life where we get elaborate description about prevention and management. Today we are able to examine the fractured bone directly under radiological examination. In absence of this, acharya Sushruta had evolved extremely useful, logical and detailed methods of determining the types of fractures and their management along with treatment of many other orthopaedic conditions.1 The fracture of bones and their treatment was first revealed in Sushrut Samhita Nidana Sthana and Chikitsa Sthana from the view of surgical management in 1500 B.C. Many interesting facts have been defined in ancient ayurvedic classics on the management and treatment of fractures including different kinds of bandages and slings to be used. The bone and joint injuries have been dealt in a very scientific manner by Acharya Sushruta, when there were no advancements like radiology and modern anaesthesia.

Classification of skeletal injuries - Grossly divided into 2 categories.

1. Kandabhagna – fractures
2. Sandhimukta – dislocation of joints तर सस्न्तधभक्तभु -् उस्त्त़ष्टं, र्वस्श्रष्टं,

   र्ववर्ततबभ, ् अवक्षंसभ, ् अर्तक्षंसं,

   र्तमस्ब क्ंसमभर्तषङ्र्वधभ || su.ni. 05/15

Types of sandhimukta explained by acharya sushruta and its correlation with dislocation[2]

Sr no	According to acharya sushruta	According to Modern science
1	Utpishta	Fracture Dislocation
2	Vishlishta	Subluxation or incomplete dislocation
3	Vivartita	Dislocation with lateral displacement
4	Avkshipta	Dislocation with downward displacement
5	Atikshipta	Dislocation with over riding

6	Tiryakshipta	Dislocation with oblique displacement

काण्डबग्नभत ऊध्वं वक्ष्माभ्- ककब टकभ, ् अश्वकणं, चणणतबू ं, ऩ्स्चचतभ, ् अस्स्थचछस्लरतं, काण्डबग्नं, भजजानगतभु , ् अर्तऩार्ततं, विं, छ्न्तनं, ऩादटतं, स्पु दटतमभर्त द्वादशर्वधभ ्||

su.ni.8/15

Types of kandabhagna explained by acharya sushruta and correlation with modern fractures

Sr.no	According to sushruta	According to modern science
1.	Karkataka bhagna	Fracture associated with haematoma formation clinically
2.	Ashwakarnaka bhagna	Spiral fracture
3.	Churnita bhagna	Communited fracture
4	Picchita bhagna	Compression fracture
5	Asthicchallita bhagna	Periosteal haematoma
6.	Kandabhagna	Transverse fracture
7.	Majjanugata bhagna	Impacted fracture
8.	Atipatita bhagna	Complete fracture
9.	Vakra bhagna	Green stick fracture
10.	Chinna bhagna	Incomplete fracture
11.	Patita fracture	Cracked fracture
12.	Sphutita fracture	Fissured fracture

Samanya chikitsa explained by Acharya Sushruta and todays first line management for trauma injuries –

A.BHAGNASTHAPANA – PLACING TO NORMAL PLACE

One should rise up the slipped down, press down, the elevated one, retract the excessively thrown out and pull out that which has moved below. All joints movable, immoveable should be set to their normal position by these setting procedures- traction, compression, extension and bandaging by a wise surgeon.3 आञ्छनन् ऩीडननश्चनव सङ्क्ंेऩननफन्तब धननस्तथा ||१८|| सन्तधीञ्छयीये सवांस्तु चरानप्मचरानर्ऩ | एतनस्तु स्थाऩनोऩामन् स्थाऩमेन्तभर्तभान ्मबषक् ||१९||

1. Anchana – traction
2. Pidana – compression

3. Sankshepa – reduction
4. Bandhan – immobilization / stabilization

B.Use of different kashaya and aushadhi for pain management and taila, ghrita for early wound healing yogas like snehottam taila, gandha taila etc which can be correlated with internal medications like analgesics, anti-inflammatory drugs

C.KUSHABANDH – Barks of madhuka, udumbar, ashwattha, palash etc are cut out and should be use for kushabandh which can be correlated with application of different types of splints

D. BANDHA PRAKAR – 14 types of bandha explained by acharya Sushruta which can be used for bandaging purpose which resembles as it is in modern era as types of bandages like t bandage, sling bandage etc.

E.ALEPA KARMA – Manjistha and madhuka macerated in water, shatadhauta grita and flour of rice all mixed together and used for application over the area. Modern practice plaster of paris cast/slab used to support the injured limb usually as first aid measures.

F.KAPAT SHAYAN – Immobilization on fracture bed is the unique concept given by acharya can be correlate roughly with Thomas splint/spine board.

G.CONCEPT OF PHYSIOTHERAPY AND REHABILITATION – Mrutpinda, lavan etc things to be hold in hand slowly to get grip and movement of joints etc.

CHALLENGES IN AYURVEDIC ORTHOPAEDIC PRACTICES

1.DIAGNOSTIC TOOLS -

The types of fractures explained by acharyas are purely based on clinical examination techniques. ayurvedic practitioners lacking this examination techniques and expertization.

Availability of developed technology based advance radiology department which helping in accurate diagnosis of fractures, injuries etc.

2.CHALLENGES IN TREATMET/ MANAGEMENT

Availability of potent antibiotics, analgesics and other medications making modern orthopaedic practice easier by early pain relief and healing. Implants, k-wire open closed reduction surgeries along with joint replacement surgeries with help of c-arm x-ray and other technological support making such difficult surgeries easier and with minimum complications.

Though some surgical techniques explained in Ayurveda, because of concise explanation, disparity of literature and maintenance of surgical knowledge secrecy its difficult to operate with such techniques.

3.AVAILABILITY OF VARIOUS SUPPORTIVE BRANCHES LIKE PHYSIOTHERAPY Traction techniques, belts – splints- implants- electrical devices, early post-operative rehabilitation is key point.

SCOPE OF SHALYA TANTRA

Even though having this much latest and advanced technological support with robotic science there are some unavoidable limitation of this tech-based science. Still so many diseases have own limitations and Ayurveda plays pivotal role in the management of those conditions which are listed below-

1.OSTEOPOROSIS AND OSTEOARTHRITIS – Fractures because of osteoporotic changes and even in patients with low calcium levels difficult to operate or healing procedure is delayed. Same way in osteoporosis leading to osteoarthritic conditions modern treatment modality is not much helpful. Extreme use of calcium supplements and analgesics causing stomach upset and many other systemic complications.ayurvedic management in such conditions is actually gold standard. Snehan, upanah, agnikarma, jalaukavacharan, bandhan, mardan, swedan, basti and abhyantar aushadhi are more beneficial.

Yoga – punarnavadi guggulu, abha guggulu, dashamula kwath, rsanadiguggulu, rasnadikwath, yogaraj guggulu, laxadi guggulu etc.

Single drug – nirgundi, eranda, shallaki, rasna, guduchi, amalaki etc

2. CONTRAINDICATIONS FOR SURGERIES BECAUSE OF

1. SYSTEMIC DISORDERS
2. BLEEDING DISRODERS
3. IMMUNOCOMPROMISED
4. AUTOIMMUNE
5. COMORBID CONDITIONS

Old aged patients with such orthopaedic conditions having some other systemic disorders like cardiovascular, renal or pulmonary disorders because of which they are unfit for surgeries or with high risk for surgeries. Such patients can be managed well with senhan, swedan, agnikarma, jalauka, basti, nasya, raktamoksan and other abhyantar aushadhi.

3.REJECTION OF IMPLANT

Patients which are having reactions with implants can be treated with ayurvedic medications.

4.DELAYED WOUND HEALING – Ayurvedic medications like kshara, panchawalkala, triphala kwath dhavan, jalauka and other medications can be helpful in treatment of post-nonhealing ulcers, pressure ulcers etc.

5.POST OPEARTIVE COMPLICATIONS like contractures, restricted range of motion can be managed with snehan, swedan, bastikarma, agnikarma etc.

6.AVN – AVASCULAR NECROSIS OF JOINTS

In AVN modern medicine have not evident based proven management but with ayurvedic medications and snehan, bastikarma found to be beneficial for patients in symptomatic relief.

Snehana with kshirabala, dashmool kwath swedan, dashmooladi niruha and madhuyasthi taila anuvasana basti,

Abhyanatar aushadhi - dashamoola kwath, panchatikta gugggulu, panchasakar churna etc5

7.CA METASTASIS – Patients with ca metastasis and post chemotherapy complications sthanika basti and abhyantar basti with snehan, swedan, shirodhara and abhyantar aushadhi showing better results.

8.CERVICAL – LUMBAR SPONDYLOSIS

Ayurvedic treatment with agnikarma, katibast, manyabast, valuka sweda, niruha-anuvasan specially erandmuladi, dashmuladi niruh found to be more useful. Agnikarma providing instant relief in symptoms.[6]

9.VATAVYADHI – Most of vatavyadhi are common in old age people due to vataprakopa hence here shodhan- shaman chikitsa with ayurvedic medicines is more useful.

10.SPRAIN AND STRAIN – Snehan, tailadhara, parishek, swedan, lepa found to be more beneficial in 1st and 2nd degree sprain and strain.

11.TENNIS ELBOW – Snehana, ppanaha, agnikarma and bandha is basic line of treatment. Among thses, agnikarma seems to be more effective in providing distinct relief. If done properly and perfectly disease does not reoccure.7

12.CALCANEAL SPUR – Snehan (mahanarayan, dashamool tail), parishek, agnikarma, valuka sweda along with internal medicines like mahayogaraja guggulu, mahavatavidhwams rasa giving 100% results in vatakantak i.e. spur.

13.SPECIAL DECOCTIONS –

Decoction of nyagrodhadi drugs can be used for sprinkling over painful joints. Milk cooked with panchmoola should be used for sprinkling. The learned surgeon should use lukewarm chakrataila. Sprinkling and paste should be verily cold and prepared of doshas alleviating drugs according to time and doshas. In fracture of upper part of the body i.e.

mastishka ear-filling, intake of ghrita and snuffing is useful while in that of extremities enema is applicable. Gandhataila which alleviates all diseases caused by vata and is suitable. Oils of trapusa, bibhitaka, priyala mixed with muscle fat should be cooked with kakolyadi drugs along with 10 times milk. This excellent oil unites fracture very quickly and is used as intake, massage, snuffing, enema, sprinkling.[8]

14.Special dietary and herbal supplements

The learned surgeon should provide rice, meat-soup, milk, ghee, pea-soup and weight promoting food and drugs to the patient suffering from bhagna. The patient of bhagna should drink milk of primiparous cow mixed with ghee, processed with kakolyadi drugs, well cooled and added with laksha early in the morning.

The patient of bhagna should drink ghrishtikshira (milk of the cow which has calved within a week) added with ghee and processed with kakolyadi drugs mixing it with laksha early in the morning. Asthi togetheshrinkhala with ghee, laksha, godhuma and Arjuna should be consumed with milk everyday by the patient of fracture and dislocation of joints.9

DISCUSSION –The symptoms of fracture as understood according to modern medicine have been mentioned centuries ago in the Ayurvedic texts. Today we are able to examine the fractured bone directly under radiological examination. In the absence of this, the ancient system had evolved extremely useful, logical and detailed methods of determining the different types of fractures and their management. There is also an indication of the use of practical physiotherapy in the texts. This could be compared to the rehabilitation post fracture section in modern medicine. An interesting feature in Sushruta‘s technique of dealing with fractures is the method of immobilising the injured limb by using fracture bed ―KAPATASHAYAN‖. The modern medicine takeover in the management of complicated, simple and compound fractures with the introduction of many surgical interventions like intramedullary devices that hasten fracture union and healing potential. Diet and application of herbal pastes and decoctions play an integral role in accelerating fracture healing.

CONCLUSION -

- It can therefore be concluded that the ethics lay down by Ayurvedic texts are extremely relevant and many of them are practiced by the modern orthopaedic surgeons even in the present times.
- It would also probably be worthwhile, in the time to come, to explore the role of diet and decoction mentioned in Ayurveda for accelerating the fracture healing.

- It is clearly evident that despite of lack of facilities like radiology and absence of potent anaesthetic agents, antibiotics and analgesics, the Ayurvedic surgeons especially Acharya Sushruta did a tremendous work in the field of orthopaedics and described the bone and joint injuries in a very scientific and elaborative way.
- Many orthopaedic diseases in geriatric as well as young patients can be treated with ayurvedic principles and even founding better useful than allopathic practices.
- It is a myth that Ayurvedic clinicians don‘t have the complete knowledge of skeletal injuries and accidental/ trauma cases cannot be dealt by Ayurvedic clinicians. Rather the fact is that Ayurveda has a rich heritage of elaborated knowledge for dealing with trauma cases.

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OPPORTUNITY OF PRACHHANNA KARMA IN GERIATRIC COSMETOLOGY

***Dr.Nikhil Parmar**

PG-Scholar, Dept. of Shalya Tantra, Parul Institute of Ayurveda

****Dr. Vivekanand Kullolli**

Professor, Dept. of Shalya Tantra, Parul Institute of Ayurveda Limda, Vadodara

*****Dr.Harish Daga**

Assistant Professor, Dept. of Shalya Tantra

Dept. of Shalya Tantra, Parul Institute of Ayurveda Limda, Vadodara

ABSTRACT

Background: Aging is a factor which cannot be avoided by any person of their life, In this stage one has to suffer some common problem like wrinkle, hyperpigmentation, stretchmarks, post-surgical marks. It is irreversible stage. Globally the share of population aged 65years or over increased from 6% in 1990 to 9% in 2019.That proportion is projected to rise further to 16% by 2050.In India the percentage share of elderly population in the total population is said to rise from 8.6% in 2011 to 10.1% in 2021 and projected to touch 13.1% in 2031. Aim-: To explore traditional Para surgical methods in Geriatric cosmetology for rejuvenation of skin and other skin condition. Material & Methods-: The present conceptual study is focused on the application of para-surgical procedures in geriatric which are described as in ancient classical literatures in present era. Methods of application of Prachhan karm with Derma roller para-surgical procedures are described in the present study. Observation: - Obsession with a youthful appearance has become commonplace in modern society and has resulted in an upswing in cosmetic procedures trying to reverse the aging process. We selectively review the literature on aging and cosmetic para surgery, with particular regard for the aging face. Raktamokshana has been described in Sushruta Samhita and Ashtang hridya. It has two methods shastrakrita and ashastrakrita. Shastrakrita further have two methods- Siravedha and Pracchana. Prachhan karma is one amongst the type of Raktavisravan explained by acharyas in which multiple minor incisions are made to let out impure blood. Prachhan karm can be achieved with help of Instrument like Dermaroller for rejuvenation of skin and various skin condition in geriatric. It is a simple and relatively cheap modality that also can be used for transdermal drug delivery. Conclusion: - Para-surgical are gaining demand in modern time because of their effectiveness in rejuvenation of skin and other skin condition in Geriatric.

KEYWORD: - Prachhankarm (microneedling), Dermaroller, Geriatric(jara), Cosmetology, Rejuvenation of skin.

INTRODUCTION

Modern western society is obsessed with achievement, youth, and beauty. Since the latter half of the 20th Century there has been an increasing focus on the body as a vehicle for identity and self -expression, with a greater recognition of the role of appearance and the desire for self -improvement. Youth has become valued and privileged above age and life experience. Beauty is the apparent new indicator of social worth. This contrasts with cultures where age is revered and elders are deferred to with respect.1

Ageing of population has been one of the most important development of this century all over the world and will be one of the major challenges for next millennium.

In 2010, an estimated 524 million were aged 65 or older -8 percent of world's population. By2050, this number is expected to nearly triple to about 1.5 billion, representing 16 percent of world population.

Between 2010 and 2050, the number of older people in less developed countries is projected to increase more than 250 percent. compared with a 71 perecent increase in developed countries.

This remarkable phenomenon is being driven by declines in fertility and improvements in longetivity. With fewer children entering the population and people living longer, older people are making up an increasing share of the total population.

In some countries, the sheer number of people entering older ages will challenge national infrastructures, particularly health systems. This numeric surge in older people is dramatically illustrated in the world's two most populous countries: Chine and India. India's current older population of 60 million is projected to exceed 277 million in 2050, an increase of nearly 280 percent from today. The dramatic increase in average life expectancy during the 20th century ranks as one of society's greatest achievements.2

The Ayurveda gives top priority to geriatrics. The term geriatrics is derived Greek word, Geri-old age and iatrics-care. It is branch of medicine concerned with care and treatment of elderly. The word geriatrics has also a close link with the Sanskrit word Jiryadi which means degenerated. In Ayurveda, the human body has been described as a living subject where the wear and tear is continuous and perpetual phenomenon. Acharya Sushrut has been explained Jara among the eight branches in the beginning of Sutrasthan. Ayurveda is having separate branch for Jara -geriatrics among all eight branches.

Life roles alter with age through events such as the death of parents or partners, disruption of relationships due to ill-health, children leaving the family home, and loss of vocational status. For women, the physiological signs of aging have been further perceived as being symptomatic of the loss of femininity, sexual identity, social power, and social visibility (Featherstone 1995). All these factors serve to enhance dissatisfaction with looking old, and increase a desire to try to look younger.3

The younger women were mostly concerned about the shape and appearance of their bodies, whilst the older women were preoccupied with their faces. In particular, the older women disliked wrinkles and drooping skin, and had undergone facelifts, chemical peels, and chin tucks.4

What actually happens to facial appearance as we age? Intrinsic aging processes include loss of skin elasticity and collagen, along with fat atrophy. Extrinsic factors, notably solar radiation, damage the dermis, with affects on collagen and elastic fibres (Demas and Braun 2001). Other factors that can contribute to an aged appearance to the face include general poor health, an unhealthy diet, cigarette smoking, and alcohol.

Prachhan karm (micro-needling) has been performed with help of Dermaroller in skin rejuvenation or in various skin condition. Dermaroller, this is a device which is having rolling stainless steel medical grade needle which are put on roller.it can be roll over the skin in direction of vertical, horizontal and diagonal. Due to this sharp needle it forms multiple minor skin injuries or upper part of skin or epidermal layer.

And it forms lots of micro channel through which we can deliver or pour drugs it can as drug delivery system, due to multiple micro skin trauma or injury healing process or skin cascade start. Wound healing process start which stimulate cytokines where stimulate platelets aggragate in that area. due this cytokine and platelets lot of positive changes occurs below the skin or in the dermal area of the skin. Various platelets derived growth factor, Musculo endothelial growth factor, insulin like growth factor lot of growth factor come in that area. Various stem cell comes in that area and it tries to lay down fibroblast and elastic tissue, collagen tissue. And all these leads to again newer vascularisation and improve a blood supply to the skin and ultimately skin rejuvenation start or laying down of collagen improves the scar and skin becomes rejuvenated, hydrated and skin start glowing this the basic action of derma roller.

Prachhan karm with Derma roller is done especially various scars over the skin, acne scar, burn scar, accident scar, scar is one the main indication of derma roller or micro-needling therapy. Another important indication is open pore, second important thing Skin Rejuvenation and Anti-aging. Anti-aging to reduce superficial fine wrinkle or slow down the aging process other thing nowadays. Various things in pigmentary disorders also derma roller and micro-needling treatment is done. For the stretchmark also. It is best treatment modality which is available under eye dark circles or periorbital pigmentation, loose skin or wrinkle one of the good treatment modality so it is useful in many skin conditions.

It useful and popular because it is novel treatment which is on OPD basis, no need to get admitted, not surgical proceed, it is called office hour processor, no down time, it is cost effective processor it is less effective than laser treatment but it is cost effective. This treatment modality is important and it is useful in various skin condition.

It acts as whenever there is minor micro channels or micro injury form that stimulate a healing cascade. superficial trauma it provides there wound healing capacity due to their useful it is not to do in those people who have viral infection, very thin skin, when there is a active acne lot of acne are there lot of folliculitis and those patient who are much more sensitive to pain.

In other condition we use 1.2mm to 1.5mm needle specially in scar, under eye, peri orbital, drug delivery system. You can apply vit-c hyaluronic acid growth factor, various vitamin, so as the booster effect of derma roller. It is Office hour processor.

Only thing after doing rolling there might be mild erythema couple of hours, you can apply, sunscreen lotion, moisturizing cream and clean the lotion you can for face washing your Face with couple of days that give you best possible result in rejuvenation with cost effective. After that you can use routine whatever your skin can regime is there, usually you can do it once in month for 4 to 6 months thought to be very effective and anti-aging and rejuvenating treatment modality.

DISCUSSION

Sushrut has described that Jara (aging)is natural phenomenon of human body.it is divided in two types i.e. Kalaja jara and Akalaj jara.5 Moreover Sushrut said that Jara is Swabhavik vyadhi or swabhav bala pravrut vyadhi.6 Jara occurs by nature itself which can not be stopped by any intervention. Further Charak has clearly mentioned the cause of Jara and Mrityu is due to kala parinama.7 Modern scientists also agree with influence of time factor of ageing process. They opine that ageing is a process of un- favourable progressive change usually correlated with the passage of time. In context of Jara management kalaj jara can be delay and Akalaj jara can be avoided by means programming of lifestyle in such a way. Cosmetic surgery and para-surgery for aging skin is also a rapidly growing field in dermatology. Advanced techniques that promise less invasive procedures and a swifter recovery make surgery seem less frightening, especially for first time patients. The ostensible objective of aesthetic surgery is to improve the patient's psychological well-being by modifying their body image. Body image is the mental picture individuals have in their mind's eye of how they appear to others. The anticipated outcome of cosmetic procedures for the aging face is to improve the patient's emotional and psychological well-being through attempting to negate the physical effects of aging by enhancing appearance.8 Micro-needling with derma roller is a new treatment modality for the treatment of scars, especially acne scars, stretch marks, wrinkles, and for facial rejuvenation. It is a simple and relatively cheap modality that also can be used for transdermal drug delivery.9

DERMA ROLLER-THE INSTRUMENT: - The standard derma roller used for acne scars is a drum-shaped roller studded with 192 fine microneedles in eight rows, 0.5-1.5 mm in length and 0.1 mm in diameter. The micro-needles are synthesized by reactive ion etching techniques on silicon or medical-grade stainless steel. The instrument is presterilized by gamma irradiation. Medical derma rollers are for single use only

THE PRINCIPLE-COLLAGEN INDUCTION THERAPY: - The medical derma roller needles are 0.5-1.5 mm in length. During treatment, the needles pierce the stratum corneum and create micro-conduits (holes) without damaging the epidermis. It has been shown that rolling with a derma roller (192 needles, 200 µm length and 70 µm diameter) over an area for 15 times will result in approximately 250 holes/ cm2. Micro-needling leads to the release of growth factors which stimulate the formation of new collagen (natural collagen) and elastin in the papillary dermis. In addition, new capillaries are formed-this neo vascularisation and neo collagenesis following treatment leads to reduction of scars.10-12 The procedure is therefore aptly called "percutaneous collagen induction therapy" and has also been used in the treatment of photoaging. POST-PROCEDURE CARE:- Micro-needling is well tolerated by patients but erythema may be seen after treatment, lasting for 2-3 days. Photoprotection for a week is advised as a routine and

local antibiotic creams Jatyadi malam may be prescribed. The patients can go back to work the very next day. Apart from erythema, no other side effects have been reported. As the micro holes close immediately, postoperative infections do not occur. The procedure is well tolerated and well accepted by the patients, is cost-effective, can be done on all skin types and on areas not suitable for peeling or laser resurfacing, such as near eyes.

CONCLUSION

The massive growth of the "looks industry" in recent years has not passed by the aging population. Indeed, much advertising and social pressure is specifically aimed at trying to get people to pay money to stop themselves from looking old. It seems our Western society increasingly denigrates rather than reveres the elderly. We need to try to ensure that the pressures on the elderly to look young do not create unrealistic expectations and lead to older people spending significant proportions of their savings on procedures that cannot turn back time. Thus, in conclusion, the control of aging is possible by ayurvedic novel treatment modality Rasayana which some of other way improve the life expectancy with combination of prachhan karm [micro needling]in geriatric.it can be use as preventing in prolonging the onset of virulence of aging.

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SCOPE OF SHALYATANTRA IN GERIATRIC ANESTHESIOLOGY

***Dr. Vaibhav Mishra**
P.G. Scholar ,Department Of Shalya Tantra,
****Dr. Parikhsit Shirode**
HOD And Proffessor,
Department Of Shalya Tantra,Parul Institute Of Ayurveda ,
Parul University,Vadodara,Gujarat

ABSTRACT

―Farther we Look Back, Further We Can See‖

Ayurveda an ancient system of healing evolved since pre-vedic era which remarks ―scripture of longevity‖. Shalya tantra embraces all needful aiming at decluttering etiology manifesting pain or misery to body and mind. Sushruta the father of surgery was first person to used sangyaharan on patient for plastic surgery in pre-ether Era. (1) Geriatrics derived from greek language ―Geron‖ means ―old man‖ and ―iatreia‖ resembles healing. Anesthesia is born of surgery date back to centuries ago, started with origin of Vedana, that is as old as human being. Age alone is no longer a barrier to surgery, since anesthesia management in geriatrics depends on sound understanding of pharmacodynamics and pharmacokinetics aspects along with capacity to cope with the stress of illness and surgery. Maintaining quality Life span among geriatrics is valid aim of Shalyatantra Since primitive age and endeavoured to acheive painless condition for surgery, as Comorbidity is stronger predictor of outcome from surgery than age. Scope of Shalyatantra in geriatric anaesthesia is becoming advanced due to craving escalation in long life expectancy and facultative physiological reserves and motley comorbidity.

In this scenario, an attempt made to highlight the concern theme.

Keywords-ShalyaTantra,Geriatrics,Anesthesia

Geriatric Anesthesia:

Introduction

Vriddhavastha is the last part of the lifespan and is mainly characterized by degenerative changes. Aging refers to a multidimensional process of physical, psychological, and social change. The changes are always degenerative in nature.

The meaning of Sangyaharana-anaesthesia is reversible loss of sense. The importance of anesthesia was felt by surgeons since primitive age and they tried to achieve this painless condition for surgery and management of anaesthesia begins with pre-operative psychological preparation of patient. [(2)]

In Rigveda we find that legs have been amputated and replaced via iron substitutes, injured eyes have been removed out, and arrow shafts have been extracted from the limbs of the Aryan warriors. The story of the progress of Ayurvedic surgery is long and fascinating. It is evident that Acharya Sushruta the father of surgery was the first person who had described anaesthesia in the context of shalya karma (Surgical procedures) and has mentioned the use of Madya-wine to mitigate the pain of surgery. [3]

The approach to and management of surgery and anesthesia in geriatric patients is different and frequently more complex than in younger patients.

Increased life expectancy and reduced mortality from chronic age-related disease continue to enlarge that fraction of the surgical patient population considered elderly.

Surgical procedures in the elderly will continue to require a disproportionately large share of societal and institutional health care resources. Routine postoperative hospitalization and intensive care, especially after major trauma, are frequently protracted and may be further complicated by infection, poor wound healing and by multiple organ system failure for critically ill elderly patients. Of equal concern are recent findings that postoperative cognitive dysfunction may persist at least three months after otherwise uncomplicated surgery.

People are never more alike than they are at birth, nor more different or unique than when they enter the geriatric era. Optimal anesthetic management of geriatric patients depends on the understanding of the normal changes in physiology, anatomy, and response to pharmacological agents that accompany aging. Therefore, precise assessment and appropriate perioperative management of the elderly surgical patient represents a great challenge to all medical health care providers.

The elderly population is expected to grow by 2030. Therefore, every practicing anesthesiologist will eventually become a subspecialist in geriatric medicine, with a special responsibility for delivering cost-effective health care to older adults.

SAMPRAPTI

The possible action of an anesthesia drug according to both Ayurvedic and modern sciences can be explained as follows. [4]

Medicine

Sensory Depression

Temporary Unconsciousness

Voluntary action & reflex loss

Sensory Loss

Motor loss

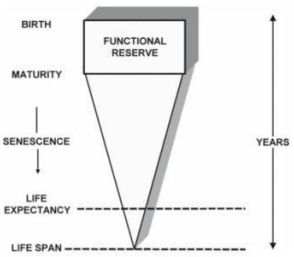
Cardio-respiratory loss (if high dose)

Pathophysiology of Aging

Age may bring wisdom but it also brings a greater chance of health problems .Processes of aging are usually distinguishable from age-related disease by the fact that they are universally present in all members of an elderly population and, in longitudinal studies of aging subjects, become progressively more apparent with increasing chronological age. Aging is a universal and progressive physiologic phenomenon characterized by degenerative changes in both the structure and the functional reserve of organs and tissues. It produces many physical manifestations due to reduced connective tissue flexibility and elasticity or the degeneration of highly structured molecular arrangements within specialized tissues.

The difference between maximum capacity and basal levels of function is organ system functional reserve, a "safety margin" available to meet the additional demands imposed by trauma or disease, or by surgery, healing and convalescence. Cardiopulmonary functional reserve, for example, can be quantified and assessed clinically using various exercise or maximal stress tests. However, there is at present no comparable approach to assessment of renal, hepatic, immune, or nervous system functional reserve. It is simply assumed that the functional reserve of these organ systems is reduced in elderly patients and that this is the mechanism by which the obvious susceptibility of elderly patients to stress- and disease-induced organ system decompensation occurs.

Organ Functions in geriatrics in view of anesthesia [(5)]



1.Cardiopulmonary Function

- It reduces the cardiac end Organ response to Intrinsic adrenergic stimulation and to IMO tropic drugs particularly beta agonists.
- Less compliant and stiffer ventricular and atrial myocardial , Can make critical condition in elderly patient during anesthesia and surgery.
- Age related loss of tissue elasticity declines and may lead deleterious effects on gas exchange.

- Age related breakdown of alveolar septa reduces total alveolar surface area , limiting gas exchange and progressively increase anatomical and alveolar dead space .
- Geriatrics experience a higher incidence of transient apnoea and episodic respiration when given narcotics.

2.Hepatorenal Function

- Elderly women appear to metabolise BZD at rates close to that of younger females,yet elderly men do not.subtle physiological changes-age and gender specific.
- Hepatic metabolism and drug bio transformation is significantly altered in this patient by their sustained exposure to poly pharmacy used to age related disease.
- Hepatic capacity for protein synthesis is significantly reduced by the 80‘s.
- Splanchin and hepatic blood flow is reduced proportionately.

3.Renal Function

- Age related atrophy -30%is of bilateral renal tissue mass is lost by the 80‘s(from 270gms to 185gms of tissue).
- Increased Renal fat and diffuse and generalised interstitial fibres.
- More than 1/3 of glomeruli and nephron tubular structures disappear by the age of 80 years .In remaining glomeruli -10-20 % Of them are affected by sclerosis-It impairs effective filtration by producing dysfunctional continuity between, afferent and efferent glomerular arterioles.
- Total renal blood flow falls almost 50 %.
- Renal plasma flow and GFR decreases more rapidly. GFR is reduced less than RPF.
- Excretion of water load is delayed.
- Diminished thirst, poor diet, diuretics for age-related hypertension .Intravascular and intracellular dehydration reduced renal blood flow and loss of nephron delays drug clearance and prolonged clinical effects of injectable anesthetic drug used pre-operatively.

4.Metabolism and body composition

- Reduction in rate of body heat production and impairment of thermo sensitivity and effeciency of autonomic thermoregulation increase the risk of inadvertent intraoperative hypothermia; decrease in core body to almost 1° C per hour.

5.Central nervous system

- Loss of nervous system tissue reflects attrition of neurons especially in grey matter,the most metabolically active ,those that synthesize neurotransmitteAutoregulation of cerebral vascular resistance (CVR) in response to change in arterial B.P. is well maintain,and the cerebral were so constrictor response to hyperventilation remains intact in healthy aged.
- Increase in number of cholinergic receptors at the end plate and surrounding areas,so despite loss of the skeletal muscle ,dose requirements for competitive neuromuscular elections are not reduced ,and are frequently slightly elevated .

Scope Of Aneasthesia In Geriatric

- Management of anesthesia and better operative outcomes begins with preoperative psychological preparation of the patient thus approach of proper councelling is need of hour.
- Revolutionary development can be achieved by establishment of different Basti and Virechan as preoperative measure.
- Nearly half of all surgical procedures involve patients older than age 65, and that percentage is likely to increase Thus, the perioperative care of the older patient represents one of the primary future frontiers of anesthetic practice .
- Jara ―old age‖is one among 8 branches of ashtanga ayurved, the sub speciality of geriatric anaesthesia can become a part of mainstream in Shalyatantra and an Ayurvedic protocol can be established for planning anesthesia in consideration of diminished physiological reserve and underlying comorbidities.
- OCD and Post-Operative Delirium-This is a more serious condition and precise etiology of it remains obscure and the subject of further research so,efforts to reduce the incidence and how to cope with them to be done by researchers .
- Spinal Herbal Analgesia -Drugs like tagara,ashwagandha, vacha etc. can be used the epidural route‘s advantage over conventional intravenous analgesia include superior analgesia ,improved function,less sedation and quick discharge from hospital.
- Pre-Cognitive Test -Geriatric patients are more sensitive to various anesthetic drug because age alters both pharmacodynamics and pharmacokinetics aspect of anesthesia management, hence advanced pre-anesthetic checkup can be incorporated in view of Dosha,Dhatu and Prakriti assessment to reduce the fatal risk in geriatrics.

- Innovative challenging observational study can be done pertaining to the intraoperative management of critically ill geriatric patients & postoperative management, emphasizing postoperative respiratory and cognitive complications, as well as acute and chronic pain.

  Detailed deep study is required to evaluate analgesic and anti-inflammatory properties and unfold other properties of Ayurvedic herbal drugs used as premedicants for geriatric patients, as traditional anesthesia has slowly but surely it works, thus with the help of latest research and new formulation, evolved into a spectrum of hope and vision of the future to the surgeon.

- There are a number of analgesics for post-operative pain management. But all the analgesics available have side effects such as gastrointestinal perforation,ulceration,bleeding altogther no analgesic can give complete analgesia in the post operative pain management. Therefore to search an indigenous drug for post operative pain management is having better scope for scientific research work.
- An innovative thirst incorporated in search to evaluate the experimental anesthetic effect of herbal drugs in the form of extract & to reduce quantity of modern anesthetic drugs by adding herbal anesthetic drugs for safe geriatric surgical outcome.
- The main purpose of pre-anesthetic or premedication is to facilitate the smooth induction and maintenance of anesthesia during operation. This is only possible by administration of drugs which relieve the patient's anxiety, apprehension and fear about the operation as well as it helps to relieves emotional tension, lowers metabolism, reduces salivary and respiratory tract secretions, prevents undesirable autonomic reflex responses to stimuli and decreases the side-effects of the anesthetic agents, thus should come up with an effective, safe ayurvedic alternative to conventional treatment with minimal side effects in mentally retarded patients.
- It is truly an applied medical science of all the medical faculties, and has proved to be one of the 3 "A"s - Anesthesia, Asepsis and Antibiotics - a millennium contribution for the tremendous advances made by the surgical care and pain management.
- Besides some ayurveda drugs like Vacha, Ashwagandha ,Bramhi, Parijata and Parasikayavani were described by numernus research scholars to utilize as premedicants for acheiving hypnosis & post operatively to truncate pain, swelling and solicitousness in the patients. However a chief herbal anesthetic agent is still awaited. [6]

- Till now only drugs invented for post operative tranquility so a indigenous anesthetic drugs are to be explored to encounter the toxicity or side effecis of modern anesthesia altogether reducing the dose of anesthesia with maximal potentiating the effects.

  PCA (Patient Controlled Analgesia-) It‘s on demand at current scenario, intermittent self administration of analgesic drug by patient. It‘s predominantly used is to deliver opioid by those who need to alleviate pain for longer so, other herbal extracts drugs can be administered in this way to cope with geriatric need as in this patient will express high satisfaction because it leads rapid relief altogether patient have self administering control by their own.

- ERP‘s-(Enhanced Recovery Programs)-It aims to reduce detrimental effects by reducing surgical stress and reducing or preempting the metabolic changes occurs in old age. [7]

- Geriatrics Accidental Hypothermia- Heat in geriatrics may be lost during anesthesia hence in duration body temperature should be monitored during lengthy surgery considering old age physiology. It may be prevented by increasing the environment temperature, keeping patient covered by warm blankets, warm IVFs. A strong preventive vision needed in this aspect.

Conclusion

In this age of rapidly expanding medical knowledge, including new surgical and anesthesia techniques, drugs, equipment and technology, along with an emphasis on patient safety and quality of care, all within an environment of cost containment and incentives for production efficiency, patients with chronic and complex medical conditions will continue to present for surgery. At the end of the day, following standards of care and the need for cooperation and collaboration among health care professionals is needed . Surgery of any kind involves pain unless the surgeon is able to conduct his operations painlessly, The Ayuredic surgeons are still lacking to get an effective measures & safe anaesthetic drug for use during geriatrics surgery and safe management. Researcher should work extensively in this stream full of fruitful scope. As Surgery is our ancient wisdom and we are equally beneficiary of newer development in field of science.

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A CASE STUDY OF DUSTHA VRANA TREATED WITH NIMBA OIL AND TRIPHALA KWATH DHAVAN.

***Dr. Sonali Mane**

ABSTRACT-

Wound is described as a break in the continuity of any body tissues. Ayurveda as decribed many formulations, medicines for oral as well for local applications to accelerate wound healing. In Ayurved chronic wounds are called Vrana. These are subcategorized into sadya varna (acute) and dusta varna (chronic).Therefore I am presenting a case of 51 year old married male with complaints of wound over posterior aspect of right elbow joint with pain, foul odour, non-healing since 4 months inspite of taking allopathic medicines. On examination it was found that surface area of wound was 22*18*0.3 cm having skin loss involving necrosis of subcutaneous tissue. Neccesary investigations and viral markers were done prior to initiation of treatment. The wound was irrigated with Triphala kwath and dressing was done with Nimba oil daily followed by oral intake of triphala gugglu 500mg twice in a day ,Shigru swaras and Guduchi swaras 15 ml twice a day for 30 days. Periodic follow up was done. This was helpful in faster wound healing, Epithelization and reducing wound exudates.

INTRODUCTION-

A chronic wound may be defined as one that is physiologically impaired due to circulation of the wound healing cycle as a result of impaired angiogeneneis, innervation or cellular migration.(1)Wound healing is a complex cellular and biochemical cascade that leads to restitution of integrity and function.(2)Factors that impede normal healing include local, systemic and technical conditions that surgeon must take into account.(3)Chronic wounds are defined as a wounds that have failed to proceed through orderly process that produces satisfactory anatomic and functional integrity. The majority of wounds that have not healed in 3 months are considered chronic.(4)Repeated trauma, poor perfusion or oxygenation and /or excessive inflammation contribute to causation and the perpetuation of chronicity of wounds.(5)In Ayurveda, topical applications and internal medicine are given to accelerate wound healing. Therefore the quest for finding new drugs/formulations has developed.

Case Report- A 51 year old married male with complain of wound over posterior aspect of right elbow joint with pain, foul odour,non healing since 4 months inspite of taking allopathic treatment was attent in outpatient department. On examination it was found that surface area of wound was 22*18*0.3 having skin loss involving necrosis of

subcutaneous tissue. Wound was caused by road traffic accident. His vitals were normal and systemic examination had no significant morbidities. He was non-smoker and nonalcoholic. After taking present and past history ,patient was advised with routine blood investigations like blood sugar fasting and post prandial, bleeding time, clotting time, serum proteins ,ESR ,KFT ,LFT .On basis on his history and laboratory investigations he was diagnosed with jirna vrana(chronic non healing wound).

Procedure and drug intervention-

Under all aseptic precautions wound was irrigated with Triphala kwath. After proper scrapping and after removing unhealthy granulation tissue, sterile Nimba oil was applied. Wound was dressed with non adherent primary dressing. Internally patient was given Trifala guggulu 500mg twice daily after food Shigru swaras and Guduchi swaras 15 ml twice daily given for 28 days.

Total duration of treament-28 days

DRUG	DOSE AND DURATION	ANUPANA
Triphala guggul	500mg twice in a day for 28 days	Normal water after food
Nimba oil	Adequate quantity	For local application
Shigru swaras	15 ml twice in a day for 28 days	Normal water after food
Guduchi swaras	15 ml twice in a day for 28 days	Normal water after food
Triphala kwath	Adequate quantity	For local application

1)Skin Colour Surrounding Wound

1-Pink or normal for ethnic group

2-Bright red &/or blanches to touch

3-White or grey pallor or hypo pigmented

4-Dark red or purple &/or non-blanchable

5- Black or hyper pigmented **2)Granulation**

Tissue –

1-Skin intact or partial thickness wound

2- Bright, beefy red; 75% to 100% of wound filled &/or tissue overgrowth

3- Bright, beefy red; < 75% & > 25% of wound filled

4- Pink, &/or dull, dusky red &/or fills < 25% of wound

5- No granulation tissue present **3)Epithelialization**

1. 100% wound covered, surface intact

2. 75% to < 100% wound covered &/ or epithelial tissues extends to >0.5cm into wound bed
3. 50% to < 75% wound covered &/ or epithelial tissues extends to <0.5cm into wound bed
4. 25% to <50% wound covered
5. <25% wound covered **4)Edges**

1-Indistinct, diffuse, none clearly visible

2-Distinct, outline clearly visible, attached, even with wound base

3-Well-defined, not attached to wound base

4-Well-defined, not attached to base, rolled under, thickened

5-Well-defined, fibrotic, scarred or hyperkeratotic **5)Necrotic**

Tissue Type

1-None visible

2-White/grey non-viable tissue &/or non-adherent yellow slough

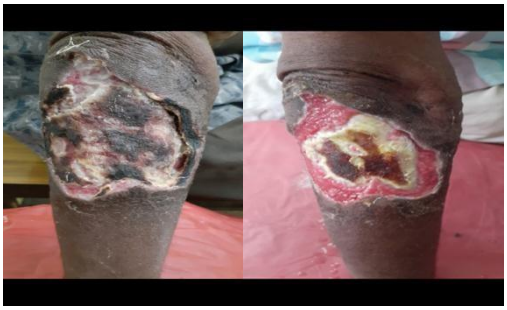
3- Loosely adherent yellow slough

4- Adherent, soft, black eschar

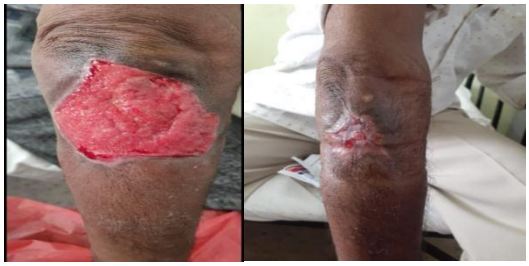
6- Firmly adherent, hard, black eschar

RESULT

SR.NO	Wound Character	Baseline Score	Score at 7 days	Score at 14 days	Score at 28 days
1	Skin colour surrounding wound	5	3	2	1
2	Granulation Tissue	5	4	2	1
3	Epithelization	5	4	3	2
4	Edges	5	4	3	1
5	Necrotic tissue type	5	3	2	1



Base line (fig -1) **7th day(fig-2)**



14th day(fig-3) **d28th day(fig -4)**

Discussion-

Wound healing is a complex process that have four basic processes which includesinflammation, wound contraction, epithelialization, granulation tissue formation and scar remodelling.(6)All wounds need to progress through this series of cellular and biochemical events that characterizes the phases of healing in order to successfully reestablish tissue intergrity.(7) The basic principle is to minimize the damage to the tissues, provide nutrients ,oxygen to the healing tissues and optimization of environment for rapid wound healing.(8)In this case after irrigation with Triphala kwath and application of Nimba oil,the wound size decreased .This shows accelerated wound healing. Application of Nimba oil and Triphala guggulu,shigru and Guduchi swaras orally improved wound edges on 7 and day [14.]

In chronic wound the bio burden is more hence exudate is more and contains bacteria and other tissue metabolites.In this case on day 7 and 14 exudate was decreased and healthy granulation started.Triphala guggula consists mainly triphala and guggul. Triphala has immunomodulatory and tridosha samak property and it reduces oxidants and improve wound healing. Guggul consists anti-inflammatory effects which decrease the tissue oedema of peripheral skin around the wound.[(9)]Nimbidin is the major chemical component in nimba which is bitter and contains sulphur ,sulphur has antibacterial,

Antifungal and keratolytic propererties. [(10)]) Shigru is katu and usha which helps in deepan ,panchan, shoolprashman and krimigana.[(11)] Guduchi is tikta kshaya ,usna which is

used for anti-inflammatory,immunomodulatory and anti-diabetic properties in chronic wounds.[12]

Conclusion-

Irrigation of Triphala kwath followed by local application of Nimba oil and oral administration of Triphala guggul,Shigru swarasa,Guduchi swarasa was found effective in faster wound epithelisation and reducing wound exudates. Hence this can be safely used in chronic non-healing wound. **References-**

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FORMULATIONS OF DASHANG LEPA IN DIFFERENT GERIATRIC DISEASES

***Dr.Deep Prajapati**

*PG scholar, Department of Shalya Tantra,

Parul Institute of Ayurveda, Parul University, Vadodara, Gujarat

****Dr.Parikshit Shirode**

**Professor and HEAD, Department of Shalya Tantra,

Parul Institute of Ayurveda, Parul University, Vadodara, Gujarat

ABSTRACT

A direct relationship exists between aging and increasing incidences of diseases. In fact, with most age-associated diseases individual manifest an underlying chronic inflammatory state as evidenced by local infiltration of inflammatory cells. Consequently, treatment with anti-inflammatory agents provide symptomatic relief to several aging-associated diseases. In Ayurvedic system of medicine various formulations are explained which can be used as anti-inflammatory medicines. Dashang Yoga is one of such compounds and it contains mixture of ten indigenous drugs. In the clinical practice Dashang Yoga is used as an external application. The formulation of Dashang Yoga is available in powder form which have it's on limitations like storing difficulty, aseptic precautions , shelf life, duration & time of application, need of assistant especially in geriatric age group. Hence there is a need of modification of formulation of Dashang Yoga from Lepa form to other convenient form to be easily applicable in geriatric age group. Probable Formulations of Dashang Yoga like spray, ointment, plaster, gel which can be used in different inflammatory conditions like shotha, dushta vrana , visarpa , jwara, visha , visphota , kandu . In this paper we will understand the possible formulations of dashang lepa in different geriatric diseases.

KEY WORDS- aging, inflammation, dashang lepa formulations

INTRODUCTION

Geriatrics differs from standard adult medicine because it focuses on the unique needs of the elderly person. The aged body is different physiologically from the younger adult body, and during old age, the decline of various organ systems becomes manifest. Previous health issues and lifestyle choices produce a different constellation of diseases and symptoms in different people. The appearance of symptoms depends on the remaining healthy reserves in the organs. Smokers, for example, consume their respiratory system reserve early and rapidly. Geriatricians aim to treat diseases that are present and achieve healthy aging. Geriatricians focus on achieving the patient's highest priorities in the context of multiple chronic conditions, and on preserving function.

Elderly people require specific attention to medications. Elderly people particularly are subjected to polypharmacy (taking multiple medications). Some elderly people have multiple medical disorders; some have self-prescribed many herbal medications and over-the-counter drugs. This polypharmacy may increase the risk of drug interactions or adverse drug reactions. In one study, it was found that prescription and nonprescription medications were commonly used together among older adults, with nearly 1 in 25 individuals potentially at risk for a major drug-drug interaction. Drugs metabolites are excreted mostly by the kidneys or the liver, which may be impaired in the elderly, necessitating medication adjustment.

Geriatricians distinguish between diseases and the effects of normal aging. For example, renal impairment may be a part of aging, but kidney failure and urinary incontinence are not. Geriatricians aim to treat diseases that are present and achieve healthy aging. Geriatricians focus on achieving the patient's highest priorities in the context of multiple chronic conditions, and on preserving function.

DRUG REVIEW

Dasha means Ten and Anga Means parts as the name suggests, *Dashang Lepa* contains ten parts or ten ingredients. For practical use one should know about the Ingredients, their properties and use of the Combination drug. For using it one has to Either manufacture the churna or have to Purchase it from market. For manufacturing One should at least know which part of the Plant is used and how it looks. There is one Adverse drug reaction is also recorded which One should know before its use. Thus, Knowing these practical aspects are also Important along with the theoretical Knowledge

Contents of *Dashang lepa* and their Properties

Plant	***Rasa*** **(Taste)**	***Guna*** **(Physical properties)**	***Virya*** **(Potency)**	***Vipaka*** **(Outcome after digestion)**	***Doshkarma*** **(Effect on doshas)**	**Useful part**
1.Shirish *(Albizzia lebbeck)*	*Kashaya*	*Laghu, Ruksha*	*Ishad-Ushna*	*Katu*	*Tridoshahara*	Bark
2.Madhuyasthi *(Glycyrrhiza glabra)*	*Madhura*	*Guru, Snigdha*	*Sheeta*	*Madhura*	*Vata-Pittashamak*	Root
3.Tagara *(Valeriana wallichii)*	*Tikta,Katu, Kashaya*	*Laghu, Snigdha*	*Ushna*	*Katu*	*Kapha-Vatashamak*	Root
4.Raktachandan *(Pterocarpus santalinus)*	*Tikta, Madhura*	*Guru, Ruksha*	*Sheeta*	*Katu*	*Kapha-Pitta shamak*	Heartwood
5.Ela *(Eletteria cardamomum)*	*Katu, Madhura*	*Laghu, Ruksha*	*Sheeta*	*Madhura*	*Tridoshahara*	Fruit-Seed

6.Jatamansi *(Nardostachys jatamansi)*	*Tikta, Kashaya, Madhura*	*Laghu, Snigdha, Tikshna*	*Sheeta*	*Katu*	*Kapha-Pittashamak,*	Rhizome
7.Haridra *(Curcuma longa)*	*Tikta, Katu*	*Laghu, Ruksha*	*Ushna*	*Katu*	*Kapha-Vata shamak, Pittarechak*	Rhizome
8.Daruharidra *(Berberis aristata)*	*Tikta, Kashaya*	*Laghu, Ruksha*	*Ushna*	*Katu*	*Kapha-Vata shamak,*	Root *Rasanjana,*
9.Kushta (*Saussurea lappa)*	*Tikta, Katu*	*Laghu, Ruksha*	*Ushna*	*Katu*	*Kapha-Vata shamak*	Root
10.Hrivera (*Pavonia odorata)*	*Tikta,Katu, Kashaya*	*Laghu, Snigdha*	*Sheeta*	*Katu*	*Pitta-Kapha shamak*	Root

DISCUSSION

Medicinal plants are of great importance to the health of individuals and communities. Acharya Charaka has mentioned three type of medicine (drug formulation) that are Antah parimarjana (used internally by oral or parenteral route), Bahih parimarjana (used as external application) and Shashtra pranidhana (surgical and parasurgical method) for the treatment of different stages of disease. Lepa is the external application of medicated paste comes under Bahih parimarjana type of treatment. This form of medication is also included in Shashti upakrama (sixty procedure of treatment for Vrana) by Acharya Sushruta. Dashang lepa is the compound formulation of ten indigenous medicinal plants, so that it is called "Dashang" (Das- ten). Dashang lepa is mentioned in several Ayurvedic literatures and clinically used as anti-inflammatory in various diseases. It is used by making a paste with lukewarm cow‟s pure butter (Ghrita) as external application. Dashang lepa contains Shirisha [Albizzia lebbeck], Madhuyashti [Glycyrrhiza glabra], Tagara [Valeriana wallichii], Raktachandnam [Pterocarpus santalinus], Ela [Eletteria cardamomum], Jatamansi [Nardostachys jatamansi], Haridra [Curcuma longa], Daruharidra [Berberis aristata], Kushta [Saussurea lappa], Hrivera [Pavonia odorata]. There are so many research work have been done on many of individual plant of the Dashang lepa but no any scientific study has been carried out on this prestigious compound formulation.

Inflammation is a defense response of our body to hazardous stimuli such as allergens and/or injury to the tissues; on the other hand, uncontrolled inflammatory response is themain cause of a vast continuum of disorders includingallergies, cardiovascular dysfunctions, metabolic syndrome,cancer, and autoimmune diseases imposing a huge economicburden on individuals and consequently on the society [1].There are various medicines for controlling and suppressinginflammatory crisis; steroids, nonsteroid anti-inflammatorydrugs, and immunosuppressant are the practical examples ofthese medications which are associated with adverse effectswhile in practice our goal is to apply minimum effective dose by the highest efficacy with the least adverse effects. Thus,we need to apply natural anti-inflammatory factors within medication therapy to achieve increased pharmacological response and the lowest degree

of unwanted side effects [1, 2]. Herbal medicines are promoting subjects in medicine. Complementary, alternative, and traditional medicines are the pivotal source of herbal medication guidance, but surely modern medicine must prove these guidelines through scientific methods before using them in practice. In this review, we have endeavoured to assess the plants and the most clinical evidence of their anti-inflammatory effects.

Different possible formulations of Dashang -

Dashang spray

Dashang ointment

Dashang plaster

Dashang gel

DASHANG SPRAY

A spray is a dynamic collection of drops dispersed in a gas. The process of forming a spray is known as atomization. A spray nozzle is the device used to generate a spray. The two main uses of sprays are to distribute material over a cross-section and to generate liquid surface area.

Aerosol spray is a type of dispensing system which creates an aerosol mist of liquid particles

Dashang extract can be mixed with propellants and packed with pressure in aerosol form. Final formulation should be packed in spray container.

DASHANG OINTMENT

Among all skin products, ointments contain the highest oil content. Their purpose is to have an occlusive effect, which means they stay on top of the skin, rather than being absorbed right away. This offers more protection against moisture loss and elements like dry air. Common ingredients found in ointments include mineral oil and petroleum.

Topical medications such as anti – inflammatory may be ideal in ointment form because they don’t evaporate off the skin, ensuring maximum product absorption. Extremely dry skin may also benefit from moisturizers in ointment form due to the same benefits.

In old age also, skin becomes dry so in the inflammatory conditions Dashang ointment can play important role in both conditions.

DASHANG PLASTER

Casts and splints are orthopaedic measures that are used to protect and support broken or injured bones and joints. They help to immobilize the injured limb to keep the bone in place until it fully heals.

Ready-made or off-the-shelf splints are available in many different sizes and shapes. In some cases, custom-designed splints must be used. Velcro straps make it easier for the patient or healthcare provider to put the splint on or take it off.

Dashang plaster which can be used as anti- inflammatory and analgesic. Which provides immobilization and due to prolonged time contact gives much relief as compared to POP plasters

DASHANG GEL

Gel products are made from a combination of cellulose, water, and alcohol. With Dashang extract These oil-free products are best suited for extremely oily skin types because you will still get the hydration you need without any residue that will leave excess oil on your skin. You might also find gels to be preferable as face moisturizers during the hot and humid summer months.

The gel is also thin enough to be applied over facial and body hair. In the injury in hair follicle gel form can be used

It is also possible to find gel-lotion combination products. These gets absorbed into the skin just like a lotion.

CONCLUSION

- All the formulations of Dashang yoga can be used as anti-inflammatory and pain reliever .
- In old aged individuals these can be used easily without any need of assistance as they are handy. Also, they are contamination free and may prove safe.
- Dashang Yoga is a poly herbal compound which can be used widely as it doesn't have any adverse effects.
- It is cheap, easily available and easy to use
- Hence in future trials and study can be conducted on these formulations

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A OVERVIEW SCOPE OF SHALYATANTRA IN PARASURGICAL PROCEDURE IN GERIATRIC.

***Dr.Sujata Hanamant Londhe**

****Dr.Sunil Jadhav**

*****Dr.Amit Shedge**

HOD Of Shalyatantra Department

L.R.P.Ayurvedic Medical College, Hospital And PG Institute And Research Centre Islampur, Sangli

Abstract :

Shalyatantra is one of the important eight branches of Ayurveda in which Surgical and Parasurgi

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cal techniques are described for management of various disease.[1] In Parasurgical procedure there is no need of anaesthesia, antibiotics or suturing.It is very easy procedure to carry out. Ksharkarma, Agnikarma and Jaloukavacharan these procedure included in Parasurgical.[2] These Parasurgical procedure are also included in Upyantra and Anushatra. In geriatric people Agnikarma, Ksharkarma are contraindicated according to Sushruta but Acharya Sushruta also mentioned in emergency condition and in disease if its indicated then it done slowly by mrudu draya.[3] Acharya Sushruta explain Rakta because it maintain life of individual in normal condition. If Rakta get vitiated it produce so many disease condition like raktapitta, epitasis, varicose vein, skin disease etc. Jaloukavacharan is type of Raktamokshan where leech are used for bloodletting.[4] This is considered as the most effective and most unique method of Raktamokshan as vitiated doshas are removed from the body without using any cutting instrument. Geriatric is now a very speedily emerging branch of research in the present era.

Introduction :

Ayurveda has discussed principle as well as philosophy of life. There is an increasing curiosity and awareness about Ayurveda and its various branches not only in India but also through the world. Parasurgical procedure means surgical procedure performed by non surgical items or in absence of surgical instruments. Raktamokshan has been done for purification and treatment of disease related to rakta. Raktavistravan is one of the surgical procedures also called as Raktamokshan.It is one of the most effective meansures as a treatment in Shalyatantra. Raktamokshan therapy impure blood is to let out from the body. The main and best chikitsa for Raktamokshan is Jaloukavacharan. Jaloukavacharan is one

among the bloodletting therapy which is used in atyanta sukumars, twak vikaras, sthanik rakta dushti etc. Ksharkarma or ksharasutra is based on the basic principles of chemical cauterization, effective in the treatment of the fistula-inano, haemorrhoids, pilonidal sinus, warts, kadar, chronic non healing ulcer.[5] Agnikarma is the procedure which is based on the principle of the thermal cauterization done with many of the different materials like pancha loha shalaka, snigdha agnikarma with taila\gritha, viddha agnikarma with the needles etc. The Agnikarma produce like being incorporated in cases like gridharsi, sandhivat, kadar, vatakantak, charmakeela, avabahuka, tennis elbow etc. [6] The Jaloukavacharan is known as leech therapy. It can be successfully apply as cosmetic, parasurgical process. Jaloukavacharan indicated in geriatric, child, female, weak person, rich person. [7].

Raktamokshan : [8]

Acharya Sushruta mentioned Raktamokshan is a kind of Parasurgery directed for the treatment of specifically Raktaja roga along with other surgical disease. Raktamokshan is also considered one among shodhan procedure.

Types of Raktamokshan:

1) Shasta (using sharp instruments) :

- Prachan, Siravedha

2) Anushastra (without using instruments) :

- Jalouka, Shrunga, Alabu, Ghatiyantra.

Brief Review Of Jalouka (leech) :

Jalouka is the one which is born in water, live in water and does its activities like eating, nourishment in water. It is one of the Anushatra in the twenty type of Anushatra and it is Pradhan Anushatra.

There are mainly two type of Jalouka : [9]

1) Savisha Jalouka : a) Krishna , b) Karbura, c) Algarda , d) Indrayudha , e) Samudrika , f) Gochandana

2) Nirvisha Jalouka : a) Kapila , b) Pingala , c) Shankhamukhi , d) Mashika, e) Pundarikmukhi , f) Savarika **Materials and Methods :**

Slection of leeches in Ayurveda medicine Raktamokshanis a significant therapeutic procedure using six type of nirvisha jalouka. In Jaloukavacharan procedure, kidney tray, gauze, needle, saidhav lavana, haridra powder these material are used.

Jaloukavacharan vidhi : [10]

1. Purvakarma :

a) Collection and preservation of leeches

b) Examination of patient

c) Shodhan of leech

d) Preparation of patient

2.Pradhankarma :

Patient for Jaloukavacharan should be in sitting posture or lying down posture. If effected part is woundless, then should be made ruksha by scapping with mrita(soil) or gomaya churna.Then the leech should be applied by haridra and sarspa churna and put into the pot having clear water for some time to known that the leech is free from mada. Then that leech is applied to the affected part of the patient. Leech starts sucking the blood, a white cloth or gauze piece should be covered on it, leaving the facial portion. Continuously pour the water drop by drop to keep the leech very cold. The middle portion of leech will be swollen as soon as it starts sucking the blood, it may be noted here that it sucks only impure blood first. If the patient notices pricking pain and itching at the time of sucking pure blood, then it should be removed by pouring saidhava lavaan at its mouth.

3. Paschatakarma :

As soon as jalouka is removed from the patients affected part, taila mixed with saidhava lavana should be poured on its mouth with the help of forefinger and thumb of left hand, the tail end of jalouka should be picked up and with right hand forefinger and thumb it should be squeezed towards the head. By this it will vomit the sucked blood. Then the put the jalouka in vessel containing pure water, when the jalouka is moving inside the vessel, it should be noted whether it has vomited all the blood it has sucked. Leech is removed from the body shataadhouta ghrita should be applied on the wound or else madhu should be applied or pichu dipped in shataadhout ghrita should be kept on it. Cold application should be made on the wound and bandage should be applied and tied properly or after jalouka detached from the body the wound should be cleaned with kashay or any one of the tails like jatyadi taila may be applied. Jalouka is going to suck the blood of an individual, because of the property of an anticoagulated hirudin, the blood will not clot and thereby it allow sucked blood to get in to the alimentary canal of jalouka easily.

Indication Of Jaloukavacharan : [11]

- Jalouka is used in Nirupa, Aadhya, Vrudha, Balaka, Durbal, Nari, Sukumar for the mokshan of rakta, which is being vitiated by pitta.

- Leech application can be done in various disease like Vidradhi, Kushtha, Granthi, Arbuda, Visharp, Gulma, Arsha, Vatarakta, Sandhigatroga, kantharoga, Netraroga, Shlipad, Vidarika, Vranashotha, Bhangandhar, Parikartika.
- Contraindication Of Jaloukavacharan :
- In the following circumstances, jaloukavacharan should be avoided - Sarvangshotha, Udarroga, Shosa, Ksheena, Garbhini, Pandu.

Conclusion :

In geriatric patient, Jaloukavacharan is one of the best Parasurgical procedure used mainly in Rakta pradoshaja vyadhi. Jaloukavacharan is safe as it can be used in communicable disease due to presence of specific factor in it. It is very cheap and short procedure without obstructing patients daily routinue. Jaloukavacharan is less time consuming, cost effective and easily adopted for geriatric patients. Leecha is a sort of boon in rural areas. It is a best Parasurgical and cosmetic instrument.

Discussion :

Balakshay, satvakshay, sarkshay as commonly found geriatric so Agnikarma, Kasharkarma, are contraindicated but Jaloukavacharan can be done in geriatrics as it is easy and safe procedure to carry out. Whenever there is contraindicated of shastra karma. Anushatra like Jalouka can be used Hiruda medicinalis is mainly used in human beings. Various modes of bloodletting have been divised according to nature of disease, the patient and the predominace of doshas. Jalouka can be used in many raktaj disorder by applying it on affected area locally. Not only the hirudin but also several other enzymes like hirudin, bdellin, egilin, hementin, collagenase, apyrase, decrosin, hayloronidase and orgelasel etc it is also having action of vasodilation and anesthetic.

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EFFECT OF MURCHHIT TILA TAILA UTTARBASTI IN URETHRAL STRICTURE OF GERIATRIC AGE GROUP -A CASE STUDY

***Dr. Vinit Kini**

Abstract:

In Geriatric patients ,urological problems like dribbling micturition,burning micturition,dysuria etc are commonly seen due to Urethral Stricture,BPH,Chronic urinary tract infection,Urinary Incontinence,Over-active bladder etc.In this study we will discuss effect of Ayurvedic parasurgical procedure i.e Uttarbasti in Urethral Stricture. Urethral Stricture involves scarring that narrows the tube that carries urine out of body mostly due to STD's ,Catheterisation,straddle injury to pernineum.Newer Surgical Techniques like Urethral Dilatation ,DVIU,Urethroplasty etc are used but they are painful,expensive & has recurences. In Ayurvedic literature Mutra margasankoch and Mutrotsanga are entity which can be closely related to urethral stricture which are described by Acharya Sushruta in Uttartantra.In this case study ,a 65 yr old male patient suffering from LUTS Came to Shalya OPD undergone repeated urethral dilatations but was unrelieved.So after clinical evaluation & Investigations the case diagnosed as Urethral Stricture & treated with Uttarbasti.In this case study Murchhit Tila Taila for Uttarbasti procedure was used.After Procedure results were evaluated & results are satisfying.

Introduction:

Ayurveda is the science of Life & Originated in India more than 5000 years ago & is often called ―Mother of All Healing‖ Ayurveda is formally organized into 8 branches commonly known as ―Asthang Ayurved‖. According to Acharya Sushruta,who is known as Father of Indian Surgery Shalyatantra is a main branch, which deals primarily with knowledge of various surgical disorders with their causes, symptoms, diagnosis and management [1]. Acharya Sushruta described Mutraghata roga in Uttartantra. There are 12 varieties of Mutraghata is described in Sushruta Samhita.Mutramarg sankoch is not mentioned as separate entity but the symptoms have similiarity with mutrotsanga [2].In Mutrotsanga the pathology must be in urinary bladder or in urethra anywhere from bladder to tip of penis. Symptoms of Mutramarg sankoch can be corelated with Stricture Urethra.Urethral Stricture means narrowing of urethral lumen by a fibrotic tissue which obstructs flow of urine & produces LUTS like Dribbling micturition ,hesitancy ,urgency,dysuria etc[3].The etiological factors may be chronic infection,post-surgery, trauma etc.[4] In Modern Medicine modality of treatments include surgical techniques like Urethral Dilatation like Balloon & Sequential Dilatation. Newer Modern Surgical

techniques are presently in use like DVIU (Direct Visual Internal Urethrotomy), Urethroplasty, Urethral Meatal Stenting, Free Graft (Skin ,Mucosal Lining of cheeks).

Repeated instrumentation carries risk of local trauma, false passage, formation of infection. [5] Apart from Complications these techniques are expensive & it is unable to provide satisfaction & uneventful recovery. Acharya Sushruta described Ayurvedic parasurgical procedure Uttarbasti under the heading of Shashtiupakrama [6]. Which is unique treatment of Mutraghata Vyadhis .In this Procedure medicated oil,Decoction & Grita are passed through Per Urethra in males & in Urinary bladder or Urethra in females.It is carried out as per advancement of disease.Previous studies also suggest encouraging results with different medicated oil. [7]

Case Report

A Male patient of 65 yrs old complains of Dribbling Micturition,Dysuria,,increased frequency of micturition for past 8 months.

History of Present illness:

Patient was asymptomatic before 10 months then started complaining of above symptoms but since the symptoms were not so much significant patient ignored it, but 3 months ago complaints got increased & shown to a Urologist in Osmanabad .Patient undergone Urethral dilatation & Suprapubic catheterisation at urology hospital but had no relief .So for further ,management patient came to Shalyatantra OPD at GAC,Osmanabad **Past History :**

Medicinal History : N/H/O DM/HTN /KOCHS/BA

Surgical History: Circumcision age 13 yrs , Supra-pubic catherization & Urethral Dilatation done 4 months ago.

Family History : No any relevant family history noted

Allergic History : None

Personal History:

Bowel : Irregular

Urine : Iregular

Diet: Mixed

Appetite: Regular

Occupation: Primary School teacher

Addiction: None **Systemic Examination**

R.S: Air entry bilaterally Equal & clear,No abnormal sounds

CVS: S1 S2 Normal ,No abnormal cardiac sounds heard CNS:

Conscious,Oriented to time ,Place & Person .

Local Examination:

Patient is examined in supine position along with genital examination. -

External urethral meatus stenosis seen (Coronal Hypospadias) -Penile

Shaft normal curvature seen.

-B/L Testis normally palpable

-Spermatic cord non-tender B/L Palpable

-No Inguinal Lymphadenopathy **Investigations:**

CBC: Hb-12.1mg/dl **BT-**2‘ 40‖

WBC-8600 **CT-** 6‘ 70‖

Platelets:-210000 **VDRL-**Negative

BSL (R) -84 mg /dl **HbsAg-** Non -Reactive

Urine Routine & Microscopic S /O -No evidence of Sugar /Pus cells/RBC‘s & Casts ,Crystals

KFT: Sr.Urea- 23 mg/dl

Sr.Creat- 1.51

Sr.Uric Acid -5.1

Materials & Method:

In this study 20 ml of Murchhit tila taila was used for Uttarbasti. The dose may be varied from 10 ml to 60 ml depending upon the severity of disease. Some other ingredients like rock salt was used in powder form in amount of 1 gm. After mixing salt in oil make it warm enough to touch. Avoid too much heat as it may cause burn. Uttarbasti oil along with other required instruments like disposable syringe, surgical gloves infant feeding tube 8 no, Xylocaine jelly ,2 % betadine swab & some betadine gauze pieces, sponge holding forceps, hole sheet, penile clamp were sterilized & kept ready for procedure.

Dose: Alternate day Murchhit Tila Taila + 1 gm Saindhav mixture Uttarbasti given to patient for 10 days with feeding tube,repeated again after 10 days for 2 month.

Route: Per Urethra

Assessment Criteria:

A)Subjective Criteria 1)Weak Stream

Sr.No	Grades	Symptoms
1	0	Normal Stream
2	1	Moderate stream falling 10 cm ahead of legs **(After Study)**
3	2	Poor Stream falling near legs within 10 cm **(Before Study)**
4	3	Dribbling Micturition soiling clothes & body parts
5	4	Acute Retention of Urine

2)Hesitancy

Sr.No	Grades	Symptoms
1	0	Normal flow of urine within 5 secs
2	1	Flow of urine after straining for 5 -10 secs **(After Study)**
3	2	Flow of Urine after straining for 10-15 secs
4	3	Flow of Urine seen after straining for more than 15 secs **(Before Study)**
5	4	No flow of urine after straining for anytime.

3)Dysuria

Sr.No	Grades	Symptoms
1	0	Normal Stream with no straining & pain
2	1	Moderate stream with mild straining & pain **(After Study)**
3	2	Poor Stream with moderate straining & pain **(Before Study)**
4	3	Dribbling with moderate straining & pain
5	4	No flow of urine despite severe straining & pain

B)Objective Criteria

1)Urine Flowmeter

Observation & Results:

Sr.No	Symptoms	Before Treatment	After Treatment
1.	Weak Stream	02	01
2.	Hesitancy	03	01
3.	Dysuria	02	00
4.	Urine Flow/Sec	5 ml/sec	11 ml/sec

Discussion:

Urethral stricture is a commonly encountered disease in Geriatric patients in day to day surgical practice which is relatively common in men,reason can be attributed to testosterone which plays an important role in development of urethra & function of the smooth muscles of corpora cavernosa,due to decrease in androgen receptors & periurethral vascularity in the urethra leading to increase in urethral stricture. The Management of urethral stricture disease over the last few decades has been mainly surgical in nature like urethral dilatation which requires expert hand to avoid the complication like false passage & journey of treatment proves to be expensive.Urethroplasty which is considered as Gold Standard treatment ,still patient come with recurrence after some years.Uttarbasti is a Ayurvedic para-surgical procedure advised by Sushruta in the management of Mutraghata and Mutrakrichchra. Mutra margasankoch is a disease which is caused by mainly Vata and kapha doshas and trauma to the urethral lining is one of the pathological factor in this disease.Uttarbasti procedure acts both ways i.e pharmacologically & mechanically on the stricture urethra.Here in study Murchhit tila Taila has been used which easily gets absorbed by mucosa in urinary bladder & acts on urethral stricture. Murchhit Tila Taila is having main properties Vatakaphagna.Murchhit tila taila posseses properties of Vyavahi,Sukshma & Snigdha guna which helps in Lubrication & Dilatation of Urethral Lumen. Also having properties like Snehan & Sar which increases the elasticity of the tissues,penetrates deep tissues, helps in wound healing and softening of the tissues. Also makes the Mutramarg smooth for the passage of urine and so less friction is present.The ingredients used for Murchana has its own therapeutic activity.Also saindhav used possess properties Chedana, Bhedana, Sara, Sukshama, Vikasi, Margvishodhankar, sharir avayamridukar, Vataanuloman, so it helps in the Lekhan karma of the fibrosed tissues. Also Sukshama guna of Saindhava helps to penetrate and act in the deeper tissues.Now come to the mechanical effect of Uttarbasti as due to frequent insertion of infant feeding tube in increasing sizes mechanically dilates the contracted part so that lumen remains open that reflect as good stream of urine.Due to above mode of action of drug results in no stasis of urine,reduces chances of UTI & Ultimately results in no recurrence of urethral stricture.

Conclusion:

The case study concluded that Murchhit Tila Taila Uttarbasti is as good as some of the Modern surgery techniques that are widely accepted globally.There are lesser evidences of Recurrence with Murchhit Tila Taila Uttarbasti with almost no complications such as bleeding or false tract.

It is minimal invasive economical & cost effective treatment available for Urethral stricture in Geriatric age group and can be easily performed in Indian OPD set up of of Hospital.

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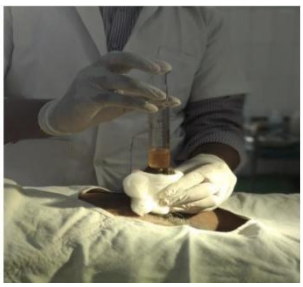
EQUIPMENT FOR UTTARBSTI.



PROCEDURE UTTARBASTI

MANAGEMENT OF MUTRAGHATA W. S. R TO BENIGN PROSTATIC HYPERPLASIA BY VARUNADYA TAIL UTTARBASTI- A CASE STUDY

***Dr. Priyanka Babasaheb Harkal**

****Dr. Ashutosh S. Kulkarni**

Department of Shalyatantra,

Radhakisan Toshniwal Ayurved Rugnalaya, Akola, Maharashtra

Abstract- Benign Prostatic Hyperplasia is major geriatric problem of uropathic disorder described in Ayurveda as one type of Mutraghata. The symptoms like retention of urine, incomplete voiding, dribbling, hesitancy, incontinence of urine reflects the symptoms of twelve type of Mutraghata. These symptoms can be correlate with Benign Prostatic Hyperplasia in modern. Benign Prostatic Hyperplasia is non-malignant enlargement of Prostate gland. There is no definitive conservative cure available. The present available surgical procedure is Transurethral resection of Prostate (TURP) and Prostatectomy. These surgical procedure and minimal invasive methods have their own limitations. As it is senile disease, Patient may not be fit for the surgery. In Sushrut Samhita, the choice of treatment for Mutraghata is Uttarbasti as shodhan chikitsa. Uttarbasti is non-invasive para surgical procedure in which some medicinal preparations are administered per urethra. In present case study, a patient of BPH is treated with Uttarbasti.

Keywords- Benign Prostatic Hyperplasia, Mutraghata, Uttarbasti, Varunadya tail.

Introduction- Ayurveda deals with healthy life of human being. Mutraghata is disease of mutravaha strotas. Sushrut Samhita describes twelve types of Mutraghata1. The signs and symptoms of Mutraghata closely relates to BPH. The abnormally increased Vara dosha is accumated in narrow spaces of neck of urinary bladder and anal canal. Treatment of Mutraghata is explained in Sushrut Samhita2. Uttarbasti is one among them. Uttarbasti is non-invasive para surgical procedure in which some medicinal preparations are administered per urethra.

Benign Prostatic Hyperplasia is non-malignant enlargement of Prostate which occurs usually between 50-70 year of age. BPH is characterised with both obstructive as well as irritative symptoms3. Hesitancy, weak urine flow and dribbling micturition comes under obstructive symptoms while urgency, frequency, nocturia comes under irritative symptoms. BPH worsen the quality of life of human. It can be managed with oral management. Those who are not responding to oral medicines require surgery. Open

Prostatectomy, Trans-urethral resection of prostate are commonly done procedures. But it results many complication and as it is senile disease, patient may also not fit for the surgery. There is need of alternative therapy. This Uttarbasti is choice of treatment in BPH. In this study, we managed a patient of BPH came to our OPD successfully with Varunadya tail Uttarbasti. This procedure takes 15-20 min. It is carried out for 3 consecutive days as per need.

Case Report-

A 67 year old male patient came to our opd with following symptoms- •

Frequency of micturition- every half hour to hour since past 1 years.

- Urgency- since few months
- Weak urine stream- since 1year
- Nocturia- 4-5 times every night since 1 year **History of present illness:**

Patient having above complaint since 1 year. Initially he had taken oral medicines for that from his near by physicians. But he was not satisfied with the treatment as his symptoms were still there. So he came to our opd, we him diagnosed with BPH.

History of past illness:

No history of any previous major disorder.

O/E- conscious, oriented Afebrile

Bp- 120/70 mmhg

Pulse- 82/min

S/E- CVS -HS normal

CNS-conscious, oriented

RS- Clear

Investigation-

Ultrasound- shows enlarged Prostate with post void residual volume of 80cc .

Treatment plan: Parient was diagnosed with Benign Prostatic Hyperplasia and advised to go for Uttarbasti. Uttarbasti was given with Varunadya tail mentioned in Bhaishajya Ratnavali4 for 3 consecutive days and then gap of 3 days for 4 weeks along with Chandraprabha vati 250mg BID orally during this period.

Material and method:

Material required:

Varunadya tail , feeding tube no. 14, Disposable syringe 20cc and 2cc, Betadine solution, Xylocaine jelly 2%, Surgical gloves, Sterile cotton and gauze pieces, Linen drape, Sterile bowl.

Uttarbasti done under all aseptic precautions with Varunadya tail. In this study we used 20ml of drug. Warm the tail and make it warm enough to touch. Avoid too heat to cause burn. **Procedure:**

1.Preoperative:

Bladder was evacuated just before the Uttarbasti administration. Patient lied in supine position. Painting and draping done.

2.Operative:

With gloved hand external urethral meatus cleaned with betadine solution along with scrotal region and 2% xylocaine jelly pushed in urethra by using 2cc disposable syringe and some jelly applied externally to the meatus. Tip of 20cc syringe filled with medicinal preparation is connected to feeding tube no. 14 and feeding tube is inserted in external meatus by right hand gently. Now oil is slowly pushed with gentle pressure. Feeding tube is removed and area is cleaned. The procedure repeated for three consecutive days and after gap of three days for 4 weeks. With this we gave Chandraprabha vati orally.

3.Post operative:

Patient was asked to lie down in supine position for few minutes.

Criteria for assessment of result of Uttarbasti:

Frequency of micturition

Urgency

Poor urine stream

Nocturia

Interval between to Vegas **Observation and result:**

Criteria	**Before trial**	**After trial**
Frequency of micturition	15-16/day	8-9 times/day
Urgency	Present	Absent
Poor urine stream	Present	Absent
Nocturia	5-6times/night	1-2 times/night
Interval between two Vegas	Half hour to hour	1 and half hour to 2 hours

There is no significant change in weight of prostate after treatment but post void residual volume found to be 0cc after treatment.

Discussion- Benign Prostatic Hyperplasia is common in men but it‘s exact aetiology is unknown. We observed that Uttarbasti of Varunadya tail is well effective on symptoms of BPH. Varunadya tail normalises increased Vata dosha. Varunadya tail contains Varuna, Gokshur and Til tail. Varun and Gokshur are bhedi, agnideepak, ashmarihar and bastishodhan, vilayan,shothhar 5,6. These properties , sanga is removed in mutravaha strotas specially at basti sheersheer which inhances the function of Apan Vayu in the form of increased urine flow rate and reduced post void residue. Tail pushed during uttarbasti is absorbed by mucosal linings of bladder. Varuna and Gokshur are antiurolithic, diuretic and increases urine flow. Chandraprabha vati is tridoshhar. It increases urine flow rate.

Conclusion-

As per the observation and results of above case report it is very obvious that the case of BPH can be managed by Uttarbasti treatment. The procedure should be done under all aseptic precaution to avoid the iatrogenic urinary tract infection. The procedure should be done by skilled person. As it is single case study, it should be tried on large number of patients for its validation.The case study concluded as the Uttarbasti with Varunadya tail has symptomatic relief on symptoms of BPH. It has encouraging results. **References-**

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LEECH THERAPY AS CO-THERAPY WITH PHYSIOTHERAPY ON QUALITY OF LIFE IN ELDERLY KNEE OSTEOARTHRITIS PATIENTS CASE REPORTS

***Dr. Jayasheela.M.Goni**
PHD Scholar,Parul Institute Of Ayurved
Parul University ,Vadodara
****Dr Hemanth D Toshikhane**
Dean Faculty Of Ayurveda
Principal
Parul Institute Of Ayurved,Parul University,Vadodara

ABSTRACT INTRODUCTION

Osteoarthritis(OA), is the most common musculoskeletal condition seen in elderly patients above 60 years. The study reveals that 10% of the global Geriatric population is suffering from osteoarthritis. Osteoarthritis of the knee is a major cause of mobility impairment, Clinical and functional changes caused by Osteoarthritis(OA) influences the quality of life(QL)of elderly people resulting in reduced independence in older adults. Osteoarthritis is more common in women than men, 45% of women over the age of 65 years have symptoms while radiological evidence is found in 70% of those over 65years. In this case report Leech therapy which is in practiced in Ayurveda since many years and suitable for elderly female patient is administered as co- therapy along with physio therapy. Leech therapy is beneficial in reduction of pain, tenderness, stiffness, and swelling, also enhances the quality of life, in elderly female patient of Knee Osteoarthritis

CASE PRESENTATION

I Report two cases of elderly women suffering from knee osteoarthritis visited my OPD of Khemdas Ayurved Hospital,Teaching Hospital of Parul Institute of Ayurved and Research, Ishwarpura Vadodara, Gujarat, Patient number 1 was a 65year old elderly woman not obese, came with a 3-year history of progressively worsening pain in both knees. She showed all the clinical presentation of knee osteoarthritis, not undergone any previous knee surgery. This resulted in restricted mobility and affected her daily routine Patient number 2 was a 67year old elderly woman not obese, came with 5-year history of progressively worsening pain in both knees.

Patient number 1 received the treatment Physiotherapy. The duration of the treatment was total period of 4 weeks (28 Days). Intervention will be 3 therapy sessions per week, each session is 30 minutes‘ duration Patient number 2 received the treatment Leech therapy as

co- therapy along with physio therapy. The duration of the both physio therapy and leech therapy treatments were for total period of 4 weeks (28 Days). Intervention will be for 3 therapy sessions per week, each session is 30 minutes‘ duration. Patients has to take the treatment in OPD.

CONCLUSION:

The rate of improvement was evaluated using Visual Analogue Scale and WOMAC Osteoarthritis Index, shown significant results in the patient who has taken leech therapy as co therapy along with physiotherapy as compared to the patient who has taken physiotherapy alone. There is considerable improvement in reduction of pain, stiffness, also improvement in the mobility. This study aims in bringing quality of life in elderly knee osteoarthritis patients visiting at Khemdas Ayurved Hospital at Parul University.

AGING CHANCES WHICH INCREASES RISK OF WOUNDS AND DECREASES WOUND HEALING

***Dr.Megha jadhav**

*PGscholar,DepartmentofShalyaTantra,ParulInstituteofAyurveda,Vadodara

****Dr.Vivekanad kullolli**

**Professor ,

*****Dr. Hemant Toshikhane**

*** Dean and Principal, Faculty of Ayurveda, Parul Ayurvedic Hospital, Parul University,Vadodara, Gujarat

ABSTRACT

Aging is the process that reduces the number of healthy cells in the body. -Therefore, body looses it's ability to respond to the challenges (external as well as internal stress) to maintain homeostasis.During aging, all the physical, psychological and social changes occurs in multi-dimensional aspectsThe leading causes of morbidity in old aged people are inflammatory an degenerative conditions such as arthritis, diabetes, osteoporosis, Parkinson's Disease, Urinary system related problems etc.There are various causative factors which increases the risk of wounds in elderly and at the same time, decrease the wound healingThere is a general consensus that wounds heal more slowly in the elderly population and that all phases of the wound healing process are affected.Aging is accompanied by decreased inflammatory and proliferative responses, delayed angiogenesis, delayed remodeling, and slower re-epithelialization which is called as 'Natural Delays' in old individualsThe multifactorial nature of wound healing in the elderly makes it difficult to determine whether observed healing problems are attributable to results of aging or other factors.Healing is affected by multiple factors in addition to patient age, which itself is not a dependable indicator of physiologic health. Some of these factors are disease, nutrition, perfusion, skin quality, environment, and individual responses to life events.It is particularly difficult for the aged patient to sustain the motivation to participate in care required during the healing process when cascading problems are allowed to build on the decreasing functions and reserve capacities of aging body systems and deplete available energy levels.Assessment of each individual is required because of the wide variety of aging changes and healing responses seen in aged patients.Compared with a younger adult, the aged patient generally heals well, following the same healing process but at a slower rate.Wound healing for the aged can be optimized through techniques of energy conservation, correction of existing problems, and management of risks related to aging and the individual patientIn this paper we will understand the changes in aging skin, co-morbidities that can lead to chronic wounds, recognise the palliative wounds and challanges of palliative wound care.

KEY WORDS-

Wound healing ,Aged patients ,Chronic wounds, Delayed would healing

INTRODUCTION

During aging, all the physical, psychological and social changes occurs in multi-dimensional aspects. The leading causes of morbidity in old aged people are inflammatory and degenerative conditions such as arthritis, diabetes, osteoporosis, Parkinson's Disease, Urinary system related problems etc. There are various causative factors which increases the risk of wounds in elderly and at the same time, decreaes the wound healing. Non healing wounds, which include venous leg ulcers (VLUs), diabetic foot ulcers (DFUs), arterial insufficiency, and pressure ulcers (PUs), disproportionately affect older adults and impose substantial morbidity and mortality on millions of older people. The great majority of non healing wounds are associated with conditions more common in older than younger individuals, including vascular disease, venous insufficiency, unrelieved pressure, and diabetes mellitus. In addition, an increasing number of older adults are undergoing surgery and are at risk of wound complications

BASIC SCIENCE OF WOUND REPAIR AND HHEALING-

Biology of Wound Healing, Chronic Wounds, and Aging

The complex process of wound healing occurs in overlapping phases: inflammation, proliferation, angiogenesis, epidermal restoration, and wound contraction and remodeling. Important cell types in this process are platelets, which recruit inflammatory cells and form a provisional matrix, and macrophages, which include several phenotypes and regulate the cytokine environment in the wound, which influences proliferative responses and wound closure. Matrix metalloproteinases (MMPs) are active throughout wound healing, aiding in phagocytosis, angiogenesis, cell migration during epidermal restoration, and tissue remodeling.

DISCUSSION

Aging is accompanied by decreased inflammatory and proliferative responses, delayed angiogenesis, delayed remodeling, and slower re-epithelialization which is called as 'Natural Delays' in old individuals.

Compared with a younger adult, the aged patient generally heals well, following the same healing process but at a slower rate. Wound healing for the aged can be optimized through techniques of energy conservation, correction of existing problems, and management of risks related to aging and the individual patient

Goals-

1. Understand changes in aging skin

2. Understand comorbidities that can lead to chronic wound

3. Recognize palliative wound care

Intrinsic changes in aging skin-

1. Diminished sensation to light touch and pressure
2. Reduced sebum secretion
3. Decreased ability to produce Vitamin D3
4. Decreased pilosebacious units, sweat glands and subcutaneous fat
5. Reduced elastin production

Extrinsic changes in aging skin-

1. UV radiations
2. Cigarette smoking – Cigarette Smoke has over 4,000 chemicals including pro-oxidants, free radicals, and nitric oxide which Directly induces oxidative stress and other adverse chemical reactions
3. Ozone- is a gaseous oxidant that also directly induces oxidative stress, decreases antioxidants such as Vitamin C and E
4. Airborne particulate matters
5. Co morbaidities that impact skin
6. Altered nutritional status
7. Altered hormone levels (Estrogen, Testosterone)
8. Anemia
9. Atherosclerosis, decreased perfusion
10. Venous insufficiency
11. Diabetes with microvascular and neurologic changes
12. Any source of edema: CHF, Venous stasis etc
13. Any source of hypoxia: COPD, OSA, etc
14. Low output state: CHF, shock
15. Colonization of skin with fungus and pathogenic organisms and multiple resistant bacteria
16. Pharmacologic compromise: corticosteroids, immunomodulators
17. Obesity, lymphedema

Palliative approach to wound care-

- Identify the goals of care: cure vs comfort
- Educate the patient and family
- Emotional support
- Prevent further skin deterioration and infection
- Optimize pain management and other symptoms
- Encourage the entire care team, including physician and family
- Reconsider heroic measures: Repeated hospital transfers/ Sharp debridements/ Operative procedures/ Skin grafts
- Burdens vs benefits of procedures

Challenges of Palliative wound care-

Giving up on palliative wound care

Family reluctance

Physician reluctance

Lack of information about the severity and/or irreversibility of illness

Pressure injuries - commonly viewed as a failure of the caregivers

UNANSWERED QUESTIONS, FUTURE DIRECTIONS, AND RESEARCH CHALLENGES

Future research will require common definitions and standardized procedures for data collection and will need to address the analytical challenges associated with studying older adults, such as population heterogeneity, missing data from death or drop-outs, limited sample sizes, and variable follow-up times. Valid clinical and individual measures, particularly those of most value to the individuals, also are needed. With better measures and more data, the FDA might accept additional endpoints for clinical trials in wound care, particularly in older adults. Common comorbidities are a major concern in geriatrics and therefore should be explored in clinical trials and in basic and preclinical studies

CONCLUSION

With increase in life expectancy and more people living with chronic illness we are caring for frail population with increased risk of developing wounds.

Inter disciplinary action to the wound care is needed

Recognition of palliative wound has the potential to curtail suffering and decreases health care costs.

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EFFECTIVENESS OF AYURVEDA IN GERIATRIC UTI

***Dr. Shilpa S,**

Second year PG Scholar

****Dr. Rajeshwari P. N**

Associate Professor,

Department of Shalya tantra, Amrita School of Ayurveda, Kollam, Kerala

INTRODUCTION

Urinary Tract Infection (UTI) is the second most common disease in geriatric population due to the immunological aging and more prone to bacterial infections. Urine and faecal incontinence, dehydration, impaired cognitive function, and limited activity increase their susceptibility to infections.1 Factors facilitating the development of UTI include pelvic prolapse, cystocele, rectocele, bladder diverticulum, urinary reflux, incontinence, lack of perineal hygiene, vaginal atrophy, oestrogen deficiency in women and prostate diseases in men. Mental status changes, immunosuppression, DM, neurological diseases, invasive procedures, strictures, and anatomical changes are among the main risk factors in the elderly. UTI occurs at any part of the urinary tract.1

It occurs when the bacteria mostly Escherichia coli (E. coli) enters the bladder or kidney and begins to grow. An infection occurs when bacteria get into the bladder or kidney, often starts at the opening of urethra, and begin to grow. Abnormalities of the urinary tract that hinder the flow of urine set the stage for an infection.

In allopathy system, antibiotic therapy for its treatment. But antibiotic resistance is the drawback. Ayurveda has proved its efficacy in managing UTI successfully. It could be corelated to pittaja mūtrakr̥cchra in Ayurveda

MATERIALS AND METHODS

A 65-year-old female patient came to the OPD of Amrita School of Ayurveda with the c/o severe pain in lower abdomen, burning sensation during micturition and itching in the vaginal area.

Advised urinalysis and urine culture and sensitivity. Klebsiella species were isolated.

Given Dhātrī mix (developed in Department of Shalyatantra) along with strict pathya for 10 days.

RESULTS

After 10days, no organism isolated and other parameters became normal.

DISCUSSION

UTI being a serious disease which has potency to damage the kidneys need to be identified and treated at the earliest. Ayurveda has good scope and is safe and efficient in the antibiotic resistant era. In this case as we have aimed to treat the case with minimum number of medicine and careful advisal of pathya. The symptoms like pain, itching relieved from about 4th day. The overall treatment was successful.

KEY WORDS-UTI, Ayurveda, Mūtrakr̆cchra

INTRODUCTION

Urinary Tract Infections (UTI) is the second most common disease in geriatric population due to the immunological aging and more prone to bacterial infections. Urine and faecal incontinence, dehydration, impaired cognitive function, and limited activity increase their susceptibility to infections.1 Factors facilitating the development of UTI include pelvic prolapse, cystocele, rectocele, bladder diverticulum, urinary reflux, incontinence, lack of perineal hygiene, vaginal atrophy, oestrogen deficiency in women and prostate diseases in men. Mental status changes, immunosuppression, DM, neurological diseases, invasive procedures, strictures, and anatomical changes are among the main risk factors in the elderly. UTI occurs at any part of the urinary tract.1

It occurs when the bacteria mostly Escherichia coli (E. coli), which live in the bowel (colon) and around the anus enters the bladder or kidney and begins to grow. An infection occurs when bacteria get into the bladder or kidney, often starts at the opening of urethra, and begin to grow. Abnormalities of the urinary tract that hinder the flow of urine set the stage for an infection.

UTIs are among the most common presenting causes of sepsis in hospitals, and urinary tract infections have a wide variety of presentations. Some are simple UTIs that can be managed with outpatient antibiotics and lead to almost universally good outcomes. On the other end of the spectrum, florid urosepsis in a patient with comorbidities can be fatal. There are several risk factors that can complicate urinary tract infections and lead to treatment failure, repeat infections, or significant morbidity and mortality. It is vitally important to determine if the patient's infection may have resulted from one of these risk factors and whether the episode is likely to resolve with first-line antibiotics. Complicated urinary tract infections are those that carry a higher risk of treatment failure, and typically require longer antibiotic courses and often additional workup. Complicated urinary tract infections include those that occur: in males, in pregnant females (including asymptomatic bacteriuria), as a result of obstruction, hydronephrosis, renal tract calculi, or colovesical

fistula, in immunocompromised patients or the elderly, due to atypical organisms, after instrumentation or in conjunction with medical equipment such as urinary catheters, in renal transplant patients, in patients with impaired renal function, or after prostatectomies or radiotherapy. Additionally, urinary tract infections that recur despite adequate treatment are complicated.[2]

In allopathy system, antibiotic therapy for its treatment. But antibiotic resistance is the drawback. Ayurveda has proved its efficacy in managing UTI successfully. The śarīra is composed of three fundamental constituents viz, dosha, dhātu and mala. Their state of equilibrium is essential for the maintenance of health. Mala (waste products) are eliminated out of the body. When there is any impairment or disturbance in their normal function or impairment in kledavāhana by mutra due to its vitiation by vitiated doshas, they in turn vitiate their mārga or srotas which is called as mūtravaha srotoduṣṭi. UTI could be corelated to pittaja mūtrakr̲cchra in Ayurveda.

PATIENT INFORMATION

A 65-year-old female patient came to the OPD of Amrita School of Ayurveda with the c/o severe pain in lower abdomen, burning sensation during micturition and itching in the vaginal area which is gradually increasing in severity for the past 3 days.

AYURVEDA DIAGNOSIS

The śarīra is composed of three fundamental constituents viz, dosha, dhātu and mala. Their state of equilibrium is essential for the maintenance of health. Mala (waste products) are eliminated out of the body. When there is any impairment or disturbance in their normal function or impairment in kledavāhana by mutra due to its vitiation by vitiated doshas, they in turn vitiate their mārga or srotas which is called as mūtravaha srotoduṣṭi.

In Pittaja mūtrakr̲cchra the subject complains of śūlayukta (dysuria), raktayukta (haematuria), dāhayukta (burning sensation), and muhurmuhur mūtrapravr̲tti (increased frequency) etc. In present era Pittaja mūtrakr̲cchra is common feature. Dysuria, burning micturation and increased frequency of urination etc are the complaints of UTI (cystitis). So, UTI could be related to Pittaja mūtrakr̲cchra in Ayurveda.

TIMELINE

DATE	FOLLOW UP DETAILS	MEDICINES	IMPRESSION
16-09-2021	Urinalysis reveals cloudy urine, acidic, presence of pus cells, albumin, sugar and epithelial cells and bacteria. Culture and sensitivity revealed the presence of Klebsiella species.	Dhātrī mix 1 teaspoon powder boiled in 1 glass water: BD b/f	Dysuria, haematuria, itching in vaginal region
27-09-2021	All parameters reached normal limits. Bacteria	No medicines	All symptoms relieved
	absent		

PATHYA ADVISED

Yava, gokṣūra, kūśmāṇḍa, ṣāṣṭika śāli, kulattha, mudga, plenty of water, milk, carrot, mint, ghee, jaggery, buttermilk.

Avoid fried food, salty food, meat, vinegar, pickles, bakery food.

INVESTIGATIONS

DATE	SAMPLE & TEST	PARAMETER	VALUE
16-09-2021	Urinalysis	Appearance	Cloudy
		Protein	Positive (+) mg/dl
		Albumin	Trace
		Sugar	++++
		Reaction	Acidic
		Pus cells	40-45/hpf
		Epithelial cells	30-35/hpf
		Bacteria	++
18-09-2021	Urine- Culture & Sensitivity	Organism isolated	Klebsiella species
27-09-2021	Urinalysis	Pus cells	1-2/hpf
		Albumin	Nil
		Epithelial cells	4-6/hpf
		Sugar	+
		Appearance	clear
		Bacteria	Absent

RESULTS

All the symptoms got relieved and the urine parameters reached normal range and no bacteria was isolated after 10 days of Ayurveda treatment and pathya

DISCUSSION

About 40% of women and 12% of men experience at least one symptomatic UTI during their lifetime, and as many as 40% of affected women show recurrent UTI. In this era of multi drug resistance, Ayurveda medicine is a safe and alternative treatment choice in diseases like UTI. The Ayurvedic medicine acts as mūtrala, dāhahara, mūtravirajanīya, mūtrajanana, krimighna, mūtraviśodhini, aśmarīnāśana.

CONCLUSION

This case report highlights the efficiency of Ayurveda in managing infectious diseases like UTI. Ayurvedic medication is found to be very much effective in improving the general health of the patient. Ayurveda thus proves its potential in replacing antibiotic therapy. Antibiotic therapy is not having promising effects, has side effects, may result in antibiotic resistance in long continued usage, cause economic burden to the patient and also may result in failure of treatment thereby owing to recurrence of the disease which may get complicated over time. So, it can be concluded that Ayurveda is the best treatment choice that could overcome all the drawbacks of the modern treatment and is scientifically proven through the researches.

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MANAGEMENT OF A NEURO-ISCHEMIC ULCER IN A GERIATRIC PATIENT- A CASE REPORT

***Dr. Meghna Vaman Nayak**
Internee
Email Id- meghnanayak1698@Gmail.Com
Contact No: 9637066564
****Dr. Heramb Pundalik Hattikar**
(Corresponding Author)
Assistant Professor,Department Of Shalya Tantra,
Gomantak Ayurveda Mahavidyalaya & Research Centre, Shiroda- Goa Contact No: 9049622740

Abstract

India has become the diabetic capital of the world. Diabetes Mellitus (DM) is a complex-complicated disease affecting most of the vital organs in the body. Diabetes with complications of diabetic foot especially in latter age has become common. The classical triad of diabetic foot ulcer is neuropathy, ischemia and infection including decreased cell and growth factor response, diminished peripheral blood flow and decreased local angiogenesis. Thus patients report to OPD either in early stage of Peripheral Vascular Disease or non-healing ulcer, end stage gangrene, or post-amputation non-healing wound. When patients belong to geriatric population, the treatment becomes more complicated due to various factors like age, underlying health issues, degenerative period of life etc.

In this case an attempt was made to treat a 64 year old male geriatric patient who was a chronic diabetic with uncontrolled sugar level, having left fore-foot amputated stump with necrosed tissue, foul-smelling discharge. Planned treatment protocol with the help of Ayurveda was prescribed after analyzing the detailed history given by the patient and his son (informer). Taking into account the patho-physiology and etiological factors, treatment focused mainly on limb salvage and ulcer healing which showed promising results with healing ulcer. Considering a specific disease elaborated in modern parlance and equating it to a single clinical condition as per Ayurveda is not an apt methodology. Hence the objective of this work is to demonstrate the significance of taking into account all the factors present in the diabetic foot; possible samprapti pattern and designing the treatment. Thus substantiates prevalent grievous complications like neuro-ischemic ulcers can be managed successfully with the help of Ayurveda way of diagnosis and treatment.

Keywords-Geriatrics, Diabetes, Neuro-Ischemic Ulcer, Ayurveda intervention, Case Report

Introduction

In present scenario; sedentary life-style, unhealthy work patterns, stress and mental turmoil and over-nutrition are important etiology of diabetes, as one of the most ubiquitous diseases in the world. And India in this case has become the diabetic capital of the world and gained recognition for the wrong reason. Diabetes mellitus (DM) represents a group of chronic diseases characterized by high levels of glucose in the blood resulting from defects in insulin production or its action or both. Worldwide, the number of cases of diabetes has been estimated to be 171 million, and by 2025, this number is projected to reach 366 million.1 Diabetes is a complex disease affecting most of the vital organ systems in the body and hence people are at a risk for developing grievous health problems that may affect the feet, eyes, kidneys, heart and skin. Diabetes with complications of diabetic foot especially in latter age has become common. The classical triad of diabetic foot ulcer is neuropathy, ischemia and infection including decreased cell and growth factor response, diminished peripheral blood flow and decreased local angiogenesis hence it‘s also called as neuro-ischemic ulcer. And factors precipitating this condition are hyperlipidemia, hypertension, alcohol and cigarette smoking becomes common. These ulcers tend to occur most frequently on the plantar weight bearing surfaces of the foot underneath the pressure point. 2 As the treatment approach is concerned despite of availability of various treatment modalities on medical and surgical grounds, a dependable cure is still elusive. These many options do not withstand to the complexity, generalization and rapid progression inherent to the disease. In its most severe form, critical limb ischemia, patients are often treated with lower extremity amputation. But studies have shown that the risk of contra-lateral lower limb amputation and death after initial lower limb amputation is very high 3. It is said that the wounds/ulcers of the diabetic patient are cured with difficulty4. Even with the latest technology and modern medicine in hand, highly trained medical team around, yet the majority of the diabetic ulcers end up with more or less amputation of the concerned major or minor part of the lower limb. Thus patients report to OPD either in early stage of Peripheral Vascular Disease or non-healing ulcer, end stage gangrene, or post-amputation non-healing wound. When patients belong to geriatric population, the treatment becomes more complicated due to various factors like age, underlying health issues, degenerative period of life etc. Considering a specific disease elaborated in modern parlance and equating it to a single clinical condition as per Ayurveda is not an apt methodology. However for better parallel understanding we can think on lines of madhumeha5janya dushta vrana and gambhir vata-raktajanya6 vrana as per our science. Prevalent grievous complications like neuro-ischemic ulcers can be managed successfully with the help of Ayurveda way of diagnosis and following planned treatment protocol without any adverse effects.

Case report

In this case, a 64 year old/male geriatric patient came on wheelchair accompanied by his son to the OPD-Department of Shalya Tantra, Kamakshi Arogyadham, Shiroda-Goa because he had his left forefoot-TMT amputation done with stump floored with necrosed tissue. On history taking, it was learnt that he was hypertensive and a chronic diabetic (IDDM) with uncontrolled sugar level. Personal history revealed he was an alcoholic since many years. Trauma as the initial cause for ulcer to develop on second toe of left foot, later superimposed by infection and underlying uncontrolled diabetes acutely manifested into gangrenous changes of the foot. For which he was admitted in a multispecialty hospital, underwent TMT amputation with other supportive treatment. On clinical examination, vitals found to be normal, peripheral pulses feeble, Arterial Doppler study of left leg dated 12/4/21, showed diffuse atherosclerotic changes in the proximal anterior tibial and posterior tibial artery –having low monophasic wave forms. Distal anterior tibial and posterior tibial arteries showed no color flow. His HbA1C- glycolated blood report‘s observed value was 8.8% with Estimated Average Glucose (eAG)-205 mg/dl as dated on 14/4/21. Based on clinical presentation and Arterial Doppler report the case was diagnosed to be of madhumehajanya dushta vrana /gambhirvata-raktajanya vrana. The patient was admitted to indoor patient department (IPD) for further management where planned treatment protocol with the help of Ayurveda was prescribed after analyzing the detailed history given by the patient and his son (informer). Taking into account the etiological factors, precipitating factors and patho-physiology, treatment focused mainly on limb salvage and ulcer healing which showed promising results with healing ulcer the details of which will be elucidated further.

Examination

General: The patient was stable, afebrile and conscious during all the follow-ups. Medium built with difficulty in walking. He was of heena Sara- madhyama satva. P/A was soft-non tender. Pulse rate, respiratory rate and body temperature were within normal limits. Pallor- was mildly present while cyanosis, clubbing was absent. Bowels were passed every day, was of medium to hard consistency and frequency of urination was around 7-8 times/day. He had appetite for food with normal to disturbed sleep pattern due to the wound.

Local: TABLE 1 WOUND EXAMINATION (FIGURE 1)

Site	Left Leg (forefoot)
Number	1
Shape (vrana-akruti)	Irregular
Edge (vranaustha)	Sloping Edge
Floor (vrana tala)	Slough, Necrosed Tissue
Surrounding area/ skin	Blackish skin discoloration, loss of complexion with lack of hair,
Smell (vrana-gandha)	Foul-putrid

Peripheral Sensation	Altered (reduced) sensation due to neuropathy
Lymph nodes	Left Inguinal nodes mildly swollen

Examination of Right leg showed signs evident of peripheral vascular insufficiency.

Modern Medication History TABLE 2 MODERN MEDICATION HISTORY

MEDICINE	**DOSAGE**
Inj. Human Actrapid	6 -8-8 units (S/C)
Inj. Lantus S/C	0-0-10 units (S/C)
Tab. Stiloz (50mg)	1-0-1
Tab. Vitamin C (500 mg)	1-1-1
Tab. Cefixime (200mg)	1-0-1
Tab. Ecosprin 75	0-1-0
Tab. Rutoheal	1-0-1
Tab. Stator (40mg)	0-1-0

Ayurveda Therapeutic intervention:

Based on the understanding of samprapti of vatarakta, madhumeha, vrana the following treatment protocol was adopted

First course TABLE 3 –BASTI

Yoga Basti	Niruha- Manjishtadi Kshara Basti	450 ml	8 days
	Anuvasana – Guduchi Taila	60 ml	

TABLE 4 – VRANA KARMA

Kshara Karma	Pratisaraneeya Apamarga Kshar
Vrana Dhavana	Vacha-haridradi ganakashaya
Vrana Dhupana	vacha, haridra, guggul, vidanga, jatamansi, karpura
Taila Pratisarana	Jatyadi taila and nirgundi taila

TABLE 5– INTERNAL MEDICATIONS

Patient was advised to continue with Insulin and Tab. Ecosprin 75

MEDICINE	DOSAGE		DAYS
Vacha-haridradi gana kashaya	Decoction	50ml-50ml (Morning & Evening Empty Stomach)	Continued
Cap. Grab(Green Remedies) Vranapahari Rasa, Triphala guggulu, Gandhaka rasayan, Arogyavardhini, Guduchi, Manjishtha		1 TID	Continued
Suvarnaraja vangeshwara **Darvi** **Haridra** **Amalaki**	25 mg 750 mg 1 gm. 1 gm.	Combined Dose 1 BD	Continued
Tab. Shilajita Vati	500 mg	1-1-1	Continued
Tab. Krumikuthara Rasa	500 mg	1 HS	15 days

•Anupana – Warm Water

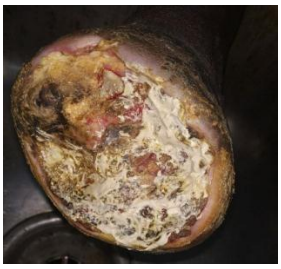

Fig.1 Kshara Karma

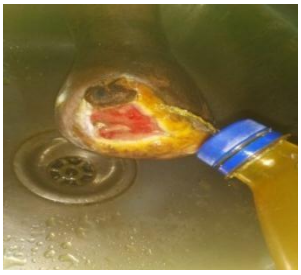

Fig.2 Vrana Dhawana

Pathya: Patient was advised to avoid alcohol, smoking, day sleep and heavy meals throughout the course of treatment and thereafter.

Results:

During the course of treatment, we found that there was improvement in the general health condition of the patient and the ulcer was in a healing stage with gradual development of red granulation tissue. The patient has continued with the treatment with local vrana-karma and internal medications. Patient has resumed walking short distances with support.

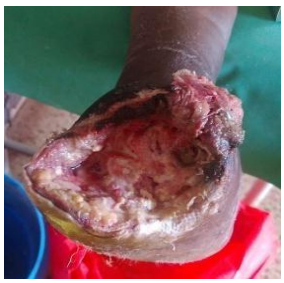

Fig 3 Before Treatment

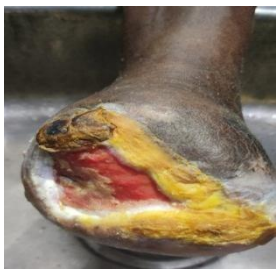

Fig 4 After Treatment (Healing Stage)

Discussion

Vatarakta is explained as a disease manifested because of avarana pathology which can very well be co-related with atherosclerotic peripheral arterial disease which later causes neurogenic or neuro-ischemic ulcers especially in Geriatric patients owing to their poor state of health. While discussing the treatment of vatarakta, Acharya Charaka has explained use of Shilajatu in "Margavarodha janya samprapti" caused by dushit kaphameda. As Shilajatu has the potency to do lekhana and brumhana simultaneously 7. The yukti of using Vachaharidradi gana kashaya 8 is justified as the samprapti transcends from involvement of dushit kapha (Bahudrava Shleshma) and meda causing avarodha of vata and rakta. The drugs from the kashaya are srotoshodhaka, lekhaniya and amapachaka and hence proved beneficial in the case. Jatyadi taila being used for vrana shodhana and vrana ropaka was used in addition with nirgundi taila. Nirgundi is krumighna and dushtavrana vishodhaka, and reduces foul-smell (as the synonym-

"sugandhika").Suvarnarajavangeshwara rasa9 is Antioxidant and Anti-inflammatory. Giving Rasayana in Geriatric patients10 is dhatvagni vardhaka and vrishya & it is an apt rasayana in geriatrics. Haridra -amalaki are agrya gana dravyas explained for meha roga.Since there is involvement of ama, dushit kapha and meda, it seems favorable condition for manifestation of krimi. This can further cause worsening of condition. Hence Krumi kuthara rasa was used for a period of 15 days. The dravyas are sukshma, tikta, katu pradhana and together do lekhana, sroto-shodhana after which healing is achieved.Cap. Grab is anti-microbial and anti-inflammatory with broad spectrum activity. Shashti upakrama11 is a boon given by Acharya Sushruta for management of wounds. Amongst which Basti has both local & systemic affects. Basti stimulates the Enteric Nervous System and thus it can influence CNS and all bodily organs. It thereby restores the physiology at molecular level. It also acts on the inflammatory substances like prostaglandins, catecholamines and vasopressin etc. While anuvasana basti causes Vatanulomana, the niruha basti will do kupita marga shodhana thereby normalizing Apana vata. Guduchi is the drug of choice in the management of Vatarakta. Guduchi possess Tikta rasa, Madhura vipaka and is Vatahara, shleshma raktavibandaghnakrut, Rakta prasadaka, Rasayana which is indicated in Vata-rakta avarana condition 12. Studies on Tinospora cordifolia have shown that it is having anti-inflammatory, antioxidant and immunomodulatory action 13. Taila is used mostly for meda-shleshma-vata roga, for giving dardhyatva to the sharir 14 etc. Hence the anuvasana basti was administered with it.Previous studies have shown manjishtadikshara basti to be significantly effective in reducing leg pain in PAD by acting directly on atherosclerosis and inhibition of further manifestation of gangrene by reversing the pathology. Manjishta and other drugs in the Mahamanjistadi Kashaya and Manjishtadi Niruha basti have raktaprasadaka property and indicated in Raktadusti conditions. The main drug manjishta is also known with synonym ―vikasa‖ as it causes vikasa (vasodilation) in sira 15. Added to it rubiadin 16 present in Manjishta has antioxidant property. Gomutra arka acts as debriding agent.

Conclusion-

Knowledge of pathogenesis and complications of a disease according to Ayurveda and Modern science is necessary for apt planning of the treatment. In modern science, the approach for neuro-ischemic ulcers with acute limb ischemia is amputation but the risk of contra-lateral limb amputation and death after initial lower limb amputation is proved to be high. In an attempt to treat neuro-ischemic ulcer in geriatric patient purely on the principles of ayurveda where combination of Internal and External medications was used; showed significant results. With this success, it can be concluded that neuro-ischemic ulcers can be treated by using planned Ayurveda treatment protocol.

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SCOPE OF SHALYATANTRA IN GERIATRIC ANESTHESIOLOGY

***Dr. Vaibhav Mishra**
P.G. Scholar ,Department Of Shalya Tantra,
****Dr. Parikhsit Shirode**
HOD And Proffessor,
Department Of Shalya Tantra,Parul Institute Of Ayurveda ,
Parul University,Vadodara,Gujarat

ABSTRACT

―Farther we Look Back, Further We Can See‖

Ayurveda an ancient system of healing evolved since pre-vedic era which remarks ―scripture of longevity‖. Shalya tantra embraces all needful aiming at decluttering etiology manifesting pain or misery to body and mind. Sushruta the father of surgery was first person to used sangyaharan on patient for plastic surgery in pre-ether Era. (1) Geriatrics derived from greek language ―Geron‖ means ―old man‖ and ―iatreia‖ resembles healing. Anesthesia is born of surgery date back to centuries ago, started with origin of Vedana, that is as old as human being. Age alone is no longer a barrier to surgery, since anesthesia management in geriatrics depends on sound understanding of pharmacodynamics and pharmacokinetics aspects along with capacity to cope with the stress of illness and surgery. Maintaining quality Life span among geriatrics is valid aim of Shalyatantra Since primitive age and endeavoured to acheive painless condition for surgery, as Comorbidity is stronger predictor of outcome from surgery than age. Scope of Shalyatantra in geriatric anaesthesia is becoming advanced due to craving escalation in long life expectancy and facultative physiological reserves and motley comorbidity.

In this scenario, an attempt made to highlight the concern theme.

Keywords-ShalyaTantra,Geriatrics,Anesthesia

Geriatric Anesthesia:

Introduction

Vriddhavastha is the last part of the lifespan and is mainly characterized by degenerative changes. Aging refers to a multidimensional process of physical, psychological, and social change. The changes are always degenerative in nature.

The meaning of Sangyaharana-anaesthesia is reversible loss of sense. The importance of anesthesia was felt by surgeons since primitive age and they tried to achieve this painless condition for surgery and management of anaesthesia begins with pre-operative psychological preparation of patient. [(2)]

In Rigveda we find that legs have been amputated and replaced via iron substitutes, injured eyes have been removed out, and arrow shafts have been extracted from the limbs of the Aryan warriors. The story of the progress of Ayurvedic surgery is long and fascinating. It is evident that Acharya Sushruta the father of surgery was the first person who had described anaesthesia in the context of shalya karma (Surgical procedures) and has mentioned the use of Madya-wine to mitigate the pain of surgery. [3]

The approach to and management of surgery and anesthesia in geriatric patients is different and frequently more complex than in younger patients.

Increased life expectancy and reduced mortality from chronic age-related disease continue to enlarge that fraction of the surgical patient population considered elderly.

Surgical procedures in the elderly will continue to require a disproportionately large share of societal and institutional health care resources. Routine postoperative hospitalization and intensive care, especially after major trauma, are frequently protracted and may be further complicated by infection, poor wound healing and by multiple organ system failure for critically ill elderly patients. Of equal concern are recent findings that postoperative cognitive dysfunction may persist at least three months after otherwise uncomplicated surgery.

People are never more alike than they are at birth, nor more different or unique than when they enter the geriatric era. Optimal anesthetic management of geriatric patients depends on the understanding of the normal changes in physiology, anatomy, and response to pharmacological agents that accompany aging. Therefore, precise assessment and appropriate perioperative management of the elderly surgical patient represents a great challenge to all medical health care providers.

The elderly population is expected to grow by 2030. Therefore, every practicing anesthesiologist will eventually become a subspecialist in geriatric medicine, with a special responsibility for delivering cost-effective health care to older adults.

SAMPRAPTI

The possible action of an anesthesia drug according to both Ayurvedic and modern sciences can be explained as follows. [4]

Medicine

Sensory Depression

Temporary Unconsciousness

Voluntary action & reflex loss

Sensory Loss

Motor loss

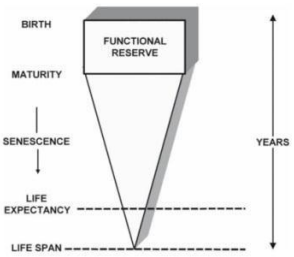
Cardio-respiratory loss (if high dose)

Pathophysiology of Aging

Age may bring wisdom but it also brings a greater chance of health problems .Processes of aging are usually distinguishable from age-related disease by the fact that they are universally present in all members of an elderly population and, in longitudinal studies of aging subjects, become progressively more apparent with increasing chronological age. Aging is a universal and progressive physiologic phenomenon characterized by degenerative changes in both the structure and the functional reserve of organs and tissues. It produces many physical manifestations due to reduced connective tissue flexibility and elasticity or the degeneration of highly structured molecular arrangements within specialized tissues.

The difference between maximum capacity and basal levels of function is organ system functional reserve, a "safety margin" available to meet the additional demands imposed by trauma or disease, or by surgery, healing and convalescence. Cardiopulmonary functional reserve, for example, can be quantified and assessed clinically using various exercise or maximal stress tests. However, there is at present no comparable approach to assessment of renal, hepatic, immune, or nervous system functional reserve. It is simply assumed that the functional reserve of these organ systems is reduced in elderly patients and that this is the mechanism by which the obvious susceptibility of elderly patients to stress- and disease-induced organ system decompensation occurs.

Organ Functions in geriatrics in view of anesthesia [(5)]



1.Cardiopulmonary Function

- It reduces the cardiac end Organ response to Intrinsic adrenergic stimulation and to IMO tropic drugs particularly beta agonists.
- Less compliant and stiffer ventricular and atrial myocardial , Can make critical condition in elderly patient during anesthesia and surgery.
- Age related loss of tissue elasticity declines and may lead deleterious effects on gas exchange.

- Age related breakdown of alveolar septa reduces total alveolar surface area , limiting gas exchange and progressively increase anatomical and alveolar dead space .
- Geriatrics experience a higher incidence of transient apnoea and episodic respiration when given narcotics.

2.Hepatorenal Function

- Elderly women appear to metabolise BZD at rates close to that of younger females,yet elderly men do not.subtle physiological changes-age and gender specific.
- Hepatic metabolism and drug bio transformation is significantly altered in this patient by their sustained exposure to poly pharmacy used to age related disease.
- Hepatic capacity for protein synthesis is significantly reduced by the 80‘s.
- Splanchin and hepatic blood flow is reduced proportionately.

3.Renal Function

- Age related atrophy -30%is of bilateral renal tissue mass is lost by the 80‘s(from 270gms to 185gms of tissue).
- Increased Renal fat and diffuse and generalised interstitial fibres.
- More than 1/3 of glomeruli and nephron tubular structures disappear by the age of 80 years .In remaining glomeruli -10-20 % Of them are affected by sclerosis-It impairs effective filtration by producing dysfunctional continuity between, afferent and efferent glomerular arterioles.
- Total renal blood flow falls almost 50 %.
- Renal plasma flow and GFR decreases more rapidly. GFR is reduced less than RPF.
- Excretion of water load is delayed.
- Diminished thirst, poor diet, diuretics for age-related hypertension .Intravascular and intracellular dehydration reduced renal blood flow and loss of nephron delays drug clearance and prolonged clinical effects of injectable anesthetic drug used pre-operatively.

4.Metabolism and body composition

- Reduction in rate of body heat production and impairment of thermo sensitivity and effeciency of autonomic thermoregulation increase the risk of inadvertent intraoperative hypothermia; decrease in core body to almost 1° C per hour.

5.Central nervous system

- Loss of nervous system tissue reflects attrition of neurons especially in grey matter,the most metabolically active ,those that synthesize neurotransmitteAutoregulation of cerebral vascular resistance (CVR) in response to change in arterial B.P. is well maintain,and the cerebral were so constrictor response to hyperventilation remains intact in healthy aged.
- Increase in number of cholinergic receptors at the end plate and surrounding areas,so despite loss of the skeletal muscle ,dose requirements for competitive neuromuscular elections are not reduced ,and are frequently slightly elevated .

Scope Of Aneasthesia In Geriatric

- Management of anesthesia and better operative outcomes begins with preoperative psychological preparation of the patient thus approach of proper councelling is need of hour.
- Revolutionary development can be achieved by establishment of different Basti and Virechan as preoperative measure.
- Nearly half of all surgical procedures involve patients older than age 65, and that percentage is likely to increase Thus, the perioperative care of the older patient represents one of the primary future frontiers of anesthetic practice .
- Jara ―old age‖is one among 8 branches of ashtanga ayurved, the sub speciality of geriatric anaesthesia can become a part of mainstream in Shalyatantra and an Ayurvedic protocol can be established for planning anesthesia in consideration of diminished physiological reserve and underlying comorbidities.
- OCD and Post-Operative Delirium-This is a more serious condition and precise etiology of it remains obscure and the subject of further research so,efforts to reduce the incidence and how to cope with them to be done by researchers .
- Spinal Herbal Analgesia -Drugs like tagara,ashwagandha, vacha etc. can be used the epidural route‘s advantage over conventional intravenous analgesia include superior analgesia ,improved function,less sedation and quick discharge from hospital.
- Pre-Cognitive Test -Geriatric patients are more sensitive to various anesthetic drug because age alters both pharmacodynamics and pharmacokinetics aspect of anesthesia management, hence advanced pre-anesthetic checkup can be incorporated in view of Dosha,Dhatu and Prakriti assessment to reduce the fatal risk in geriatrics.

- Innovative challenging observational study can be done pertaining to the intraoperative management of critically ill geriatric patients & postoperative management, emphasizing postoperative respiratory and cognitive complications, as well as acute and chronic pain.

  Detailed deep study is required to evaluate analgesic and anti-inflammatory properties and unfold other properties of Ayurvedic herbal drugs used as premedicants for geriatric patients, as traditional anesthesia has slowly but surely it works, thus with the help of latest research and new formulation, evolved into a spectrum of hope and vision of the future to the surgeon.

- There are a number of analgesics for post-operative pain management. But all the analgesics available have side effects such as gastrointestinal perforation,ulceration,bleeding altogther no analgesic can give complete analgesia in the post operative pain management. Therefore to search an indigenous drug for post operative pain management is having better scope for scientific research work.
- An innovative thirst incorporated in search to evaluate the experimental anesthetic effect of herbal drugs in the form of extract & to reduce quantity of modern anesthetic drugs by adding herbal anesthetic drugs for safe geriatric surgical outcome.
- The main purpose of pre-anesthetic or premedication is to facilitate the smooth induction and maintenance of anesthesia during operation. This is only possible by administration of drugs which relieve the patient's anxiety, apprehension and fear about the operation as well as it helps to relieves emotional tension, lowers metabolism, reduces salivary and respiratory tract secretions, prevents undesirable autonomic reflex responses to stimuli and decreases the side-effects of the anesthetic agents, thus should come up with an effective, safe ayurvedic alternative to conventional treatment with minimal side effects in mentally retarded patients.
- It is truly an applied medical science of all the medical faculties, and has proved to be one of the 3 "A"s - Anesthesia, Asepsis and Antibiotics - a millennium contribution for the tremendous advances made by the surgical care and pain management.
- Besides some ayurveda drugs like Vacha, Ashwagandha ,Bramhi, Parijata and Parasikayavani were described by numernus research scholars to utilize as premedicants for acheiving hypnosis & post operatively to truncate pain, swelling and solicitousness in the patients. However a chief herbal anesthetic agent is still awaited. [(6)]

- Till now only drugs invented for post operative tranquility so a indigenous anesthetic drugs are to be explored to encounter the toxicity or side effecis of modern anesthesia altogether reducing the dose of anesthesia with maximal potentiating the effects.

  PCA (Patient Controlled Analgesia-) It‘s on demand at current scenario, intermittent self administration of analgesic drug by patient. It‘s predominantly used is to deliver opioid by those who need to alleviate pain for longer so, other herbal extracts drugs can be administered in this way to cope with geriatric need as in this patient will express high satisfaction because it leads rapid relief altogether patient have self administering control by their own.

- ERP‘s-(Enhanced Recovery Programs)-It aims to reduce detrimental effects by reducing surgical stress and reducing or preempting the metabolic changes occurs in old age. [7]

- Geriatrics Accidental Hypothermia- Heat in geriatrics may be lost during anesthesia hence in duration body temperature should be monitored during lengthy surgery considering old age physiology. It may be prevented by increasing the environment temperature, keeping patient covered by warm blankets, warm IVFs. A strong preventive vision needed in this aspect.

Conclusion

In this age of rapidly expanding medical knowledge, including new surgical and anesthesia techniques, drugs, equipment and technology, along with an emphasis on patient safety and quality of care, all within an environment of cost containment and incentives for production efficiency, patients with chronic and complex medical conditions will continue to present for surgery. At the end of the day, following standards of care and the need for cooperation and collaboration among health care professionals is needed . Surgery of any kind involves pain unless the surgeon is able to conduct his operations painlessly, The Ayuredic surgeons are still lacking to get an effective measures & safe anaesthetic drug for use during geriatrics surgery and safe management. Researcher should work extensively in this stream full of fruitful scope. As Surgery is our ancient wisdom and we are equally beneficiary of newer development in field of science.

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A CASE STUDY OF DUSTHA VRANA TREATED WITH NIMBA OIL AND TRIPHALA KWATH DHAVAN.

***Dr. Sonali Mane**

ABSTRACT-

Wound is described as a break in the continuity of any body tissues. Ayurveda as decribed many formulations, medicines for oral as well for local applications to accelerate wound healing. In Ayurved chronic wounds are called Vrana. These are subcategorized into sadya varna (acute) and dusta varna (chronic).Therefore I am presenting a case of 51 year old married male with complaints of wound over posterior aspect of right elbow joint with pain, foul odour, non-healing since 4 months inspite of taking allopathic medicines. On examination it was found that surface area of wound was 22*18*0.3 cm having skin loss involving necrosis of subcutaneous tissue. Neccesary investigations and viral markers were done prior to initiation of treatment. The wound was irrigated with Triphala kwath and dressing was done with Nimba oil daily followed by oral intake of triphala gugglu 500mg twice in a day ,Shigru swaras and Guduchi swaras 15 ml twice a day for 30 days. Periodic follow up was done. This was helpful in faster wound healing, Epithelization and reducing wound exudates.

INTRODUCTION-

A chronic wound may be defined as one that is physiologically impaired due to circulation of the wound healing cycle as a result of impaired angiogeneneis, innervation or cellular migration.(1)Wound healing is a complex cellular and biochemical cascade that leads to restitution of integrity and function.(2)Factors that impede normal healing include local, systemic and technical conditions that surgeon must take into account.(3)Chronic wounds are defined as a wounds that have failed to proceed through orderly process that produces satisfactory anatomic and functional integrity. The majority of wounds that have not healed in 3 months are considered chronic.(4)Repeated trauma, poor perfusion or oxygenation and /or excessive inflammation contribute to causation and the perpetuation of chronicity of wounds.(5)In Ayurveda, topical applications and internal medicine are given to accelerate wound healing. Therefore the quest for finding new drugs/formulations has developed.

Case Report- A 51 year old married male with complain of wound over posterior aspect of right elbow joint with pain, foul odour,non healing since 4 months inspite of taking allopathic treatment was attent in outpatient department. On examination it was found that surface area of wound was 22*18*0.3 having skin loss involving necrosis of

subcutaneous tissue. Wound was caused by road traffic accident. His vitals were normal and systemic examination had no significant morbidities. He was non-smoker and nonalcoholic. After taking present and past history ,patient was advised with routine blood investigations like blood sugar fasting and post prandial, bleeding time, clotting time, serum proteins ,ESR ,KFT ,LFT .On basis on his history and laboratory investigations he was diagnosed with jirna vrana(chronic non healing wound).

Procedure and drug intervention-

Under all aseptic precautions wound was irrigated with Triphala kwath. After proper scrapping and after removing unhealthy granulation tissue, sterile Nimba oil was applied. Wound was dressed with non adherent primary dressing. Internally patient was given Trifala guggulu 500mg twice daily after food Shigru swaras and Guduchi swaras 15 ml twice daily given for 28 days.

Total duration of treament-28 days

DRUG	DOSE AND DURATION	ANUPANA
Triphala guggul	500mg twice in a day for 28 days	Normal water after food
Nimba oil	Adequate quantity	For local application
Shigru swaras	15 ml twice in a day for 28 days	Normal water after food
Guduchi swaras	15 ml twice in a day for 28 days	Normal water after food
Triphala kwath	Adequate quantity	For local application

1)Skin Colour Surrounding Wound

1-Pink or normal for ethnic group

2-Bright red &/or blanches to touch

3-White or grey pallor or hypo pigmented

4-Dark red or purple &/or non-blanchable

5- Black or hyper pigmented **2)Granulation**

Tissue –

1-Skin intact or partial thickness wound

6- Bright, beefy red; 75% to 100% of wound filled &/or tissue overgrowth

7- Bright, beefy red; < 75% & > 25% of wound filled

8- Pink, &/or dull, dusky red &/or fills < 25% of wound

9- No granulation tissue present **3)Epithelialization**

6. 100% wound covered, surface intact

7. 75% to < 100% wound covered &/ or epithelial tissues extends to >0.5cm into wound bed
8. 50% to < 75% wound covered &/ or epithelial tissues extends to <0.5cm into wound bed
9. 25% to <50% wound covered
10. <25% wound covered **4)Edges**

1-Indistinct, diffuse, none clearly visible

2-Distinct, outline clearly visible, attached, even with wound base

3-Well-defined, not attached to wound base

4-Well-defined, not attached to base, rolled under, thickened

5-Well-defined, fibrotic, scarred or hyperkeratotic **5)Necrotic**

Tissue Type

1-None visible

2-White/grey non-viable tissue &/or non-adherent yellow slough

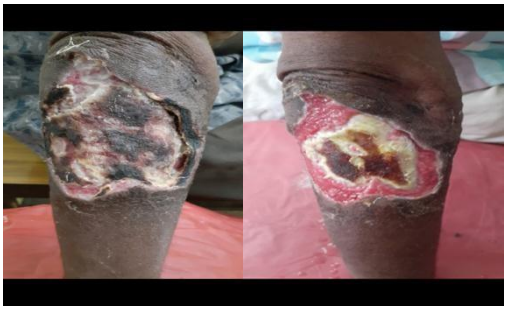
5- Loosely adherent yellow slough

6- Adherent, soft, black eschar

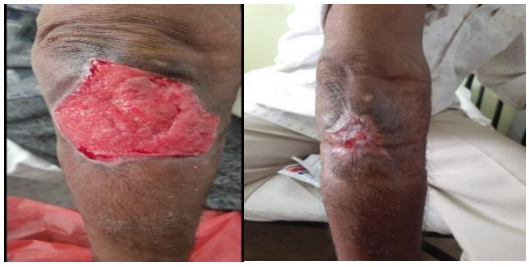
6- Firmly adherent, hard, black eschar

RESULT

SR.NO	Wound Character	Baseline Score	Score at 7 days	Score at 14 days	Score at 28 days
1	Skin colour surrounding wound	5	3	2	1
2	Granulation Tissue	5	4	2	1
3	Epithelization	5	4	3	2
4	Edges	5	4	3	1
5	Necrotic tissue type	5	3	2	1



Base line (fig -1) **7th day(fig-2)**



14th day(fig-3) **d28th day(fig -4)**

Discussion-

Wound healing is a complex process that have four basic processes which includesinflammation, wound contraction, epithelialization, granulation tissue formation and scar remodelling.(6)All wounds need to progress through this series of cellular and biochemical events that characterizes the phases of healing in order to successfully reestablish tissue intergrity.(7) The basic principle is to minimize the damage to the tissues, provide nutrients ,oxygen to the healing tissues and optimization of environment for rapid wound healing.(8)In this case after irrigation with Triphala kwath and application of Nimba oil,the wound size decreased .This shows accelerated wound healing. Application of Nimba oil and Triphala guggulu,shigru and Guduchi swaras orally improved wound edges on 7 and day [14.]

In chronic wound the bio burden is more hence exudate is more and contains bacteria and other tissue metabolites.In this case on day 7 and 14 exudate was decreased and healthy granulation started.Triphala guggula consists mainly triphala and guggul. Triphala has immunomodulatory and tridosha samak property and it reduces oxidants and improve wound healing. Guggul consists anti-inflammatory effects which decrease the tissue oedema of peripheral skin around the wound.[(9)]Nimbidin is the major chemical component in nimba which is bitter and contains sulphur ,sulphur has antibacterial,

Antifungal and keratolytic propererties. [(10)]) Shigru is katu and usha which helps in deepan ,panchan, shoolprashman and krimigana.[(11)] Guduchi is tikta kshaya ,usna which is

used for anti-inflammatory,immunomodulatory and anti-diabetic properties in chronic wounds.[12]

Conclusion-

Irrigation of Triphala kwath followed by local application of Nimba oil and oral administration of Triphala guggul,Shigru swarasa,Guduchi swarasa was found effective in faster wound epithelisation and reducing wound exudates. Hence this can be safely used in chronic non-healing wound. **References-**

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A OVERVIEW SCOPE OF SHALYATANTRA IN PARASURGICAL PROCEDURE IN GERIATRIC.

***Dr.Sujata Hanamant Londhe**

****Dr.Sunil Jadhav**

*****Dr.Amit Shedge**

HOD Of Shalyatantra Department

L.R.P.Ayurvedic Medical College, Hospital And PG Institute And Research Centre Islampur, Sangli

Abstract :

Shalyatantra is one of the important eight branches of Ayurveda in which Surgical and Parasurgi

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cal techniques are described for management of various disease.[1] In Parasurgical procedure there is no need of anaesthesia, antibiotics or suturing.It is very easy procedure to carry out. Ksharkarma, Agnikarma and Jaloukavacharan these procedure included in Parasurgical.[2] These Parasurgical procedure are also included in Upyantra and Anushatra. In geriatric people Agnikarma, Ksharkarma are contraindicated according to Sushruta but Acharya Sushruta also mentioned in emergency condition and in disease if its indicated then it done slowly by mrudu draya.[3] Acharya Sushruta explain Rakta because it maintain life of individual in normal condition. If Rakta get vitiated it produce so many disease condition like raktapitta, epitasis, varicose vein, skin disease etc. Jaloukavacharan is type of Raktamokshan where leech are used for bloodletting.[4] This is considered as the most effective and most unique method of Raktamokshan as vitiated doshas are removed from the body without using any cutting instrument. Geriatric is now a very speedily emerging branch of research in the present era.

Introduction :

Ayurveda has discussed principle as well as philosophy of life. There is an increasing curiosity and awareness about Ayurveda and its various branches not only in India but also through the world. Parasurgical procedure means surgical procedure performed by non surgical items or in absence of surgical instruments. Raktamokshan has been done for purification and treatment of disease related to rakta. Raktavistravan is one of the surgical procedures also called as Raktamokshan.It is one of the most effective meansures as a treatment in Shalyatantra. Raktamokshan therapy impure blood is to let out from the body.

The main and best chikitsa for Raktamokshan is Jaloukavacharan. Jaloukavacharan is one among the bloodletting therapy which is used in atyanta sukumars, twak vikaras, sthanik rakta dushti etc. Ksharkarma or ksharasutra is based on the basic principles of chemical cauterization, effective in the treatment of the fistula-inano, haemorrhoids, pilonidal sinus, warts, kadar, chronic non healing ulcer.[5] Agnikarma is the procedure which is based on the principle of the thermal cauterization done with many of the different materials like pancha loha shalaka, snigdha agnikarma with taila\gritha, viddha agnikarma with the needles etc. The Agnikarma produce like being incorporated in cases like gridharsi, sandhivat, kadar, vatakantak, charmakeela, avabahuka, tennis elbow etc. [6] The Jaloukavacharan is known as leech therapy. It can be successfully apply as cosmetic, parasurgical process. Jaloukavacharan indicated in geriatric, child, female, weak person, rich person. [7].

Raktamokshan : [8]

Acharya Sushruta mentioned Raktamokshan is a kind of Parasurgery directed for the treatment of specifically Raktaja roga along with other surgical disease. Raktamokshan is also considered one among shodhan procedure.

Types of Raktamokshan:

1) Shasta (using sharp instruments) :

- Prachan, Siravedha

2) Anushastra (without using instruments) :

- Jalouka, Shrunga, Alabu, Ghatiyantra.

Brief Review Of Jalouka (leech) :

Jalouka is the one which is born in water, live in water and does its activities like eating, nourishment in water. It is one of the Anushatra in the twenty type of Anushatra and it is Pradhan Anushatra.

There are mainly two type of Jalouka : [9]

3) Savisha Jalouka : a) Krishna , b) Karbura, c) Algarda , d) Indrayudha , e) Samudrika , f) Gochandana

4) Nirvisha Jalouka : a) Kapila , b) Pingala , c) Shankhamukhi , d) Mashika, e) Pundarikmukhi , f) Savarika **Materials and Methods :**

Slection of leeches in Ayurveda medicine Raktamokshanis a significant therapeutic procedure using six type of nirvisha jalouka. In Jaloukavacharan procedure, kidney tray, gauze, needle, saidhav lavana, haridra powder these material are used.

Jaloukavacharan vidhi : [10]

1. Purvakarma :

e) Collection and preservation of leeches

f) Examination of patient

g) Shodhan of leech

h) Preparation of patient

2.Pradhankarma :

Patient for Jaloukavacharan should be in sitting posture or lying down posture. If effected part is woundless, then should be made ruksha by scapping with mrita(soil) or gomaya churna.Then the leech should be applied by haridra and sarspa churna and put into the pot having clear water for some time to known that the leech is free from mada. Then that leech is applied to the affected part of the patient. Leech starts sucking the blood, a white cloth or gauze piece should be covered on it, leaving the facial portion. Continuously pour the water drop by drop to keep the leech very cold. The middle portion of leech will be swollen as soon as it starts sucking the blood, it may be noted here that it sucks only impure blood first. If the patient notices pricking pain and itching at the time of sucking pure blood, then it should be removed by pouring saidhava lavaan at its mouth.

3. Paschatakarma :

As soon as jalouka is removed from the patients affected part, taila mixed with saidhava lavana should be poured on its mouth with the help of forefinger and thumb of left hand, the tail end of jalouka should be picked up and with right hand forefinger and thumb it should be squeezed towards the head. By this it will vomit the sucked blood. Then the put the jalouka in vessel containing pure water, when the jalouka is moving inside the vessel, it should be noted whether it has vomited all the blood it has sucked. Leech is removed from the body shataadhouta ghrita should be applied on the wound or else madhu should be applied or pichu dipped in shataadhout ghrita should be kept on it. Cold application should be made on the wound and bandage should be applied and tied properly or after jalouka detached from the body the wound should be cleaned with kashay or any one of the tails like jatyadi taila may be applied. Jalouka is going to suck the blood of an individual, because of the property of an anticoagulated hirudin, the blood will not clot and thereby it allow sucked blood to get in to the alimentary canal of jalouka easily.

Indication Of Jaloukavacharan : [11]

- Jalouka is used in Nirupa, Aadhya, Vrudha, Balaka, Durbal, Nari, Sukumar for the mokshan of rakta, which is being vitiated by pitta.

- Leech application can be done in various disease like Vidradhi, Kushtha, Granthi, Arbuda, Visharp, Gulma, Arsha, Vatarakta, Sandhigatroga, kantharoga, Netraroga, Shlipad, Vidarika, Vranashotha, Bhangandhar, Parikartika.
- Contraindication Of Jaloukavacharan :
- In the following circumstances, jaloukavacharan should be avoided - Sarvangshotha, Udarroga, Shosa, Ksheena, Garbhini, Pandu.

Conclusion :

In geriatric patient, Jaloukavacharan is one of the best Parasurgical procedure used mainly in Rakta pradoshaja vyadhi. Jaloukavacharan is safe as it can be used in communicable disease due to presence of specific factor in it. It is very cheap and short procedure without obstructing patients daily routinue. Jaloukavacharan is less time consuming, cost effective and easily adopted for geriatric patients. Leecha is a sort of boon in rural areas. It is a best Parasurgical and cosmetic instrument.

Discussion :

Balakshay, satvakshay, sarkshay as commonly found geriatric so Agnikarma, Kasharkarma, are contraindicated but Jaloukavacharan can be done in geriatrics as it is easy and safe procedure to carry out. Whenever there is contraindicated of shastra karma. Anushatra like Jalouka can be used Hiruda medicinalis is mainly used in human beings. Various modes of bloodletting have been divised according to nature of disease, the patient and the predominace of doshas. Jalouka can be used in many raktaj disorder by applying it on affected area locally. Not only the hirudin but also several other enzymes like hirudin, bdellin, egilin, hementin, collagenase, apyrase, decrosin, hayloronidase and orgelasel etc it is also having action of vasodilation and anesthetic.

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EFFECT OF MURCHHIT TILA TAILA UTTARBASTI IN URETHRAL STRICTURE OF GERIATRIC AGE GROUP -A CASE STUDY

***Dr. Vinit Kini**

Abstract:

In Geriatric patients ,urological problems like dribbling micturition,burning micturition,dysuria etc are commonly seen due to Urethral Stricture,BPH,Chronic urinary tract infection,Urinary Incontinence,Over-active bladder etc.In this study we will discuss effect of Ayurvedic parasurgical procedure i.e Uttarbasti in Urethral Stricture. Urethral Stricture involves scarring that narrows the tube that carries urine out of body mostly due to STD's ,Catheterisation,straddle injury to pernineum.Newer Surgical Techniques like Urethral Dilatation ,DVIU,Urethroplasty etc are used but they are painful,expensive & has recurences. In Ayurvedic literature Mutra margasankoch and Mutrotsanga are entity which can be closely related to urethral stricture which are described by Acharya Sushruta in Uttartantra.In this case study ,a 65 yr old male patient suffering from LUTS Came to Shalya OPD undergone repeated urethral dilatations but was unrelieved.So after clinical evaluation & Investigations the case diagnosed as Urethral Stricture & treated with Uttarbasti.In this case study Murchhit Tila Taila for Uttarbasti procedure was used.After Procedure results were evaluated & results are satisfying.

Introduction:

Ayurveda is the science of Life & Originated in India more than 5000 years ago & is often called ―Mother of All Healing‖ Ayurveda is formally organized into 8 branches commonly known as ―Asthang Ayurved‖. According to Acharya Sushruta,who is known as Father of Indian Surgery Shalyatantra is a main branch, which deals primarily with knowledge of various surgical disorders with their causes, symptoms, diagnosis and management [1]. Acharya Sushruta described Mutraghata roga in Uttartantra. There are 12 varieties of Mutraghata is described in Sushruta Samhita.Mutramarg sankoch is not mentioned as separate entity but the symptoms have similiarity with mutrotsanga [2].In Mutrotsanga the pathology must be in urinary bladder or in urethra anywhere from bladder to tip of penis. Symptoms of Mutramarg sankoch can be corelated with Stricture Urethra.Urethral Stricture means narrowing of urethral lumen by a fibrotic tissue which obstructs flow of urine & produces LUTS like Dribbling micturition ,hesitancy ,urgency,dysuria etc[3].The etiological factors may be chronic infection,post-surgery, trauma etc.[4] In Modern Medicine modality of treatments include surgical techniques like Urethral Dilatation like Balloon & Sequential Dilatation. Newer Modern Surgical

techniques are presently in use like DVIU (Direct Visual Internal Urethrotomy), Urethroplasty, Urethral Meatal Stenting, Free Graft (Skin ,Mucosal Lining of cheeks).

Repeated instrumentation carries risk of local trauma, false passage, formation of infection. [5] Apart from Complications these techniques are expensive & it is unable to provide satisfaction & uneventful recovery. Acharya Sushruta described Ayurvedic parasurgical procedure Uttarbasti under the heading of Shashtiupakrama [6]. Which is unique treatment of Mutraghata Vyadhis .In this Procedure medicated oil,Decoction & Grita are passed through Per Urethra in males & in Urinary bladder or Urethra in females.It is carried out as per advancement of disease.Previous studies also suggest encouraging results with different medicated oil. [7]

Case Report

A Male patient of 65 yrs old complains of Dribbling Micturition,Dysuria,,increased frequency of micturition for past 8 months.

History of Present illness:

Patient was asymptomatic before 10 months then started complaining of above symptoms but since the symptoms were not so much significant patient ignored it, but 3 months ago complaints got increased & shown to a Urologist in Osmanabad .Patient undergone Urethral dilatation & Suprapubic catheterisation at urology hospital but had no relief .So for further ,management patient came to Shalyatantra OPD at GAC,Osmanabad **Past History :**

Medicinal History : N/H/O DM/HTN /KOCHS/BA

Surgical History: Circumcision age 13 yrs , Supra-pubic catherization & Urethral Dilatation done 4 months ago.

Family History : No any relevant family history noted

Allergic History : None

Personal History:

Bowel : Irregular

Urine : Iregular

Diet: Mixed

Appetite: Regular

Occupation: Primary School teacher

Addiction: None **Systemic Examination**

R.S: Air entry bilaterally Equal & clear,No abnormal sounds

CVS: S1 S2 Normal ,No abnormal cardiac sounds heard CNS:

Conscious,Oriented to time ,Place & Person .

Local Examination:

Patient is examined in supine position along with genital examination. -

External urethral meatus stenosis seen (Coronal Hypospadias) -Penile

Shaft normal curvature seen.

-B/L Testis normally palpable

-Spermatic cord non-tender B/L Palpable

-No Inguinal Lymphadenopathy **Investigations:**

CBC: Hb-12.1mg/dl **BT-**2‘ 40‖

WBC-8600 **CT-** 6‘ 70‖

Platelets:-210000 **VDRL-**Negative

BSL (R) -84 mg /dl **HbsAg-** Non -Reactive

Urine Routine & Microscopic S /O -No evidence of Sugar /Pus cells/RBC‘s & Casts ,Crystals

KFT: Sr.Urea- 23 mg/dl

Sr.Creat- 1.51

Sr.Uric Acid -5.1

Materials & Method:

In this study 20 ml of Murchhit tila taila was used for Uttarbasti. The dose may be varied from 10 ml to 60 ml depending upon the severity of disease. Some other ingredients like rock salt was used in powder form in amount of 1 gm. After mixing salt in oil make it warm enough to touch. Avoid too much heat as it may cause burn. Uttarbasti oil along with other required instruments like disposable syringe, surgical gloves infant feeding tube 8 no, Xylocaine jelly ,2 % betadine swab & some betadine gauze pieces, sponge holding forceps, hole sheet, penile clamp were sterilized & kept ready for procedure.

Dose: Alternate day Murchhit Tila Taila + 1 gm Saindhav mixture Uttarbasti given to patient for 10 days with feeding tube,repeated again after 10 days for 2 month.

Route: Per Urethra

Assessment Criteria:

A)Subjective Criteria 1)Weak Stream

Sr.No	Grades	Symptoms
1	0	Normal Stream
2	1	Moderate stream falling 10 cm ahead of legs **(After Study)**
3	2	Poor Stream falling near legs within 10 cm **(Before Study)**
4	3	Dribbling Micturition soiling clothes & body parts
5	4	Acute Retention of Urine

2)Hesitancy

Sr.No	Grades	Symptoms
1	0	Normal flow of urine within 5 secs
2	1	Flow of urine after straining for 5 -10 secs **(After Study)**
3	2	Flow of Urine after straining for 10-15 secs
4	3	Flow of Urine seen after straining for more than 15 secs **(Before Study)**
5	4	No flow of urine after straining for anytime.

3)Dysuria

Sr.No	Grades	Symptoms
1	0	Normal Stream with no straining & pain
2	1	Moderate stream with mild straining & pain **(After Study)**
3	2	Poor Stream with moderate straining & pain **(Before Study)**
4	3	Dribbling with moderate straining & pain
5	4	No flow of urine despite severe straining & pain

B)Objective Criteria

1)Urine Flowmeter

Observation & Results:

Sr.No	Symptoms	Before Treatment	After Treatment
1.	Weak Stream	02	01
2.	Hesitancy	03	01
3.	Dysuria	02	00
4.	Urine Flow/Sec	5 ml/sec	11 ml/sec

Discussion:

Urethral stricture is a commonly encountered disease in Geriatric patients in day to day surgical practice which is relatively common in men,reason can be attributed to testosterone which plays an important role in development of urethra & function of the smooth muscles of corpora cavernosa,due to decrease in androgen receptors & periurethral vascularity in the urethra leading to increase in urethral stricture. The Management of urethral stricture disease over the last few decades has been mainly surgical in nature like urethral dilatation which requires expert hand to avoid the complication like false passage & journey of treatment proves to be expensive.Urethroplasty which is considered as Gold Standard treatment ,still patient come with recurrence after some years.Uttarbasti is a Ayurvedic para-surgical procedure advised by Sushruta in the management of Mutraghata and Mutrakrichchra. Mutra margasankoch is a disease which is caused by mainly Vata and kapha doshas and trauma to the urethral lining is one of the pathological factor in this disease.Uttarbasti procedure acts both ways i.e pharmacologically & mechanically on the stricture urethra.Here in study Murchhit tila Taila has been used which easily gets absorbed by mucosa in urinary bladder & acts on urethral stricture. Murchhit Tila Taila is having main properties Vatakaphagna.Murchhit tila taila posseses properties of Vyavahi,Sukshma & Snigdha guna which helps in Lubrication & Dilatation of Urethral Lumen. Also having properties like Snehan & Sar which increases the elasticity of the tissues,penetrates deep tissues, helps in wound healing and softening of the tissues. Also makes the Mutramarg smooth for the passage of urine and so less friction is present.The ingredients used for Murchana has its own therapeutic activity.Also saindhav used possess properties Chedana, Bhedana, Sara, Sukshama, Vikasi, Margvishodhankar, sharir avayamridukar, Vataanuloman, so it helps in the Lekhan karma of the fibrosed tissues. Also Sukshama guna of Saindhava helps to penetrate and act in the deeper tissues.Now come to the mechanical effect of Uttarbasti as due to frequent insertion of infant feeding tube in increasing sizes mechanically dilates the contracted part so that lumen remains open that reflect as good stream of urine.Due to above mode of action of drug results in no stasis of urine,reduces chances of UTI & Ultimately results in no recurrence of urethral stricture.

Conclusion:

The case study concluded that Murchhit Tila Taila Uttarbasti is as good as some of the Modern surgery techniques that are widely accepted globally.There are lesser evidences of Recurrence with Murchhit Tila Taila Uttarbasti with almost no complications such as bleeding or false tract.

It is minimal invasive economical & cost effective treatment available for Urethral stricture in Geriatric age group and can be easily performed in Indian OPD set up of of Hospital.

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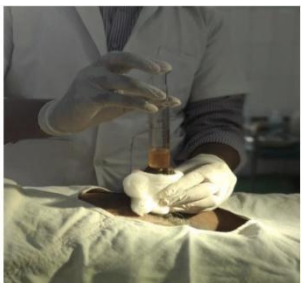
EQUIPMENT FOR UTTARBSTI.



PROCEDURE UTTARBASTI

MANAGEMENT OF MUTRAGHATA W. S. R TO BENIGN PROSTATIC HYPERPLASIA BY VARUNADYA TAIL UTTARBASTI- A CASE STUDY

***Dr. Priyanka Babasaheb Harkal**

****Dr. Ashutosh S. Kulkarni**

Department of Shalyatantra,

Radhakisan Toshniwal Ayurved Rugnalaya, Akola, Maharashtra

Abstract- Benign Prostatic Hyperplasia is major geriatric problem of uropathic disorder described in Ayurveda as one type of Mutraghata. The symptoms like retention of urine, incomplete voiding, dribbling, hesitancy, incontinence of urine reflects the symptoms of twelve type of Mutraghata. These symptoms can be correlate with Benign Prostatic Hyperplasia in modern. Benign Prostatic Hyperplasia is non-malignant enlargement of Prostate gland. There is no definitive conservative cure available. The present available surgical procedure is Transurethral resection of Prostate (TURP) and Prostatectomy. These surgical procedure and minimal invasive methods have their own limitations. As it is senile disease, Patient may not be fit for the surgery. In Sushrut Samhita, the choice of treatment for Mutraghata is Uttarbasti as shodhan chikitsa. Uttarbasti is non-invasive para surgical procedure in which some medicinal preparations are administered per urethra. In present case study, a patient of BPH is treated with Uttarbasti.

Keywords- Benign Prostatic Hyperplasia, Mutraghata, Uttarbasti, Varunadya tail.

Introduction- Ayurveda deals with healthy life of human being. Mutraghata is disease of mutravaha strotas. Sushrut Samhita describes twelve types of Mutraghata1. The signs and symptoms of Mutraghata closely relates to BPH. The abnormally increased Vara dosha is accumated in narrow spaces of neck of urinary bladder and anal canal. Treatment of Mutraghata is explained in Sushrut Samhita2. Uttarbasti is one among them. Uttarbasti is non-invasive para surgical procedure in which some medicinal preparations are administered per urethra.

Benign Prostatic Hyperplasia is non-malignant enlargement of Prostate which occurs usually between 50-70 year of age. BPH is characterised with both obstructive as well as irritative symptoms3. Hesitancy, weak urine flow and dribbling micturition comes under obstructive symptoms while urgency, frequency, nocturia comes under irritative symptoms. BPH worsen the quality of life of human. It can be managed with oral management. Those who are not responding to oral medicines require surgery. Open

Prostatectomy, Trans-urethral resection of prostate are commonly done procedures. But it results many complication and as it is senile disease, patient may also not fit for the surgery. There is need of alternative therapy. This Uttarbasti is choice of treatment in BPH. In this study, we managed a patient of BPH came to our OPD successfully with Varunadya tail Uttarbasti. This procedure takes 15-20 min. It is carried out for 3 consecutive days as per need.

Case Report-

A 67 year old male patient came to our opd with following symptoms- •

Frequency of micturition- every half hour to hour since past 1 years.

- Urgency- since few months
- Weak urine stream- since 1year
- Nocturia- 4-5 times every night since 1 year **History of present illness:**

Patient having above complaint since 1 year. Initially he had taken oral medicines for that from his near by physicians. But he was not satisfied with the treatment as his symptoms were still there. So he came to our opd, we him diagnosed with BPH.

History of past illness:

No history of any previous major disorder.

O/E- conscious, oriented Afebrile

Bp- 120/70 mmhg

Pulse- 82/min

S/E- CVS -HS normal

CNS-conscious, oriented

RS- Clear

Investigation-

Ultrasound- shows enlarged Prostate with post void residual volume of 80cc .

Treatment plan: Parient was diagnosed with Benign Prostatic Hyperplasia and advised to go for Uttarbasti. Uttarbasti was given with Varunadya tail mentioned in Bhaishajya Ratnavali4 for 3 consecutive days and then gap of 3 days for 4 weeks along with Chandraprabha vati 250mg BID orally during this period.

Material and method:

Material required:

Varunadya tail , feeding tube no. 14, Disposable syringe 20cc and 2cc, Betadine solution, Xylocaine jelly 2%, Surgical gloves, Sterile cotton and gauze pieces, Linen drape, Sterile bowl.

Uttarbasti done under all aseptic precautions with Varunadya tail. In this study we used 20ml of drug. Warm the tail and make it warm enough to touch. Avoid too heat to cause burn. **Procedure:**

1.Preoperative:

Bladder was evacuated just before the Uttarbasti administration. Patient lied in supine position. Painting and draping done.

2.Operative:

With gloved hand external urethral meatus cleaned with betadine solution along with scrotal region and 2% xylocaine jelly pushed in urethra by using 2cc disposable syringe and some jelly applied externally to the meatus. Tip of 20cc syringe filled with medicinal preparation is connected to feeding tube no. 14 and feeding tube is inserted in external meatus by right hand gently. Now oil is slowly pushed with gentle pressure. Feeding tube is removed and area is cleaned. The procedure repeated for three consecutive days and after gap of three days for 4 weeks. With this we gave Chandraprabha vati orally.

3.Post operative:

Patient was asked to lie down in supine position for few minutes.

Criteria for assessment of result of Uttarbasti:

Frequency of micturition

Urgency

Poor urine stream

Nocturia

Interval between to Vegas **Observation and result:**

Criteria	**Before trial**	**After trial**
Frequency of micturition	15-16/day	8-9 times/day
Urgency	Present	Absent
Poor urine stream	Present	Absent
Nocturia	5-6times/night	1-2 times/night
Interval between two Vegas	Half hour to hour	1 and half hour to 2 hours

There is no significant change in weight of prostate after treatment but post void residual volume found to be 0cc after treatment.

Discussion- Benign Prostatic Hyperplasia is common in men but it‘s exact aetiology is unknown. We observed that Uttarbasti of Varunadya tail is well effective on symptoms of BPH. Varunadya tail normalises increased Vata dosha. Varunadya tail contains Varuna, Gokshur and Til tail. Varun and Gokshur are bhedi, agnideepak, ashmarihar and bastishodhan, vilayan,shothhar 5,6. These properties , sanga is removed in mutravaha strotas specially at basti sheersheer which inhances the function of Apan Vayu in the form of increased urine flow rate and reduced post void residue. Tail pushed during uttarbasti is absorbed by mucosal linings of bladder. Varuna and Gokshur are antiurolithic, diuretic and increases urine flow. Chandraprabha vati is tridoshhar. It increases urine flow rate.

Conclusion-

As per the observation and results of above case report it is very obvious that the case of BPH can be managed by Uttarbasti treatment. The procedure should be done under all aseptic precaution to avoid the iatrogenic urinary tract infection. The procedure should be done by skilled person. As it is single case study, it should be tried on large number of patients for its validation.The case study concluded as the Uttarbasti with Varunadya tail has symptomatic relief on symptoms of BPH. It has encouraging results. **References-**

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LEECH THERAPY AS CO-THERAPY WITH PHYSIOTHERAPY ON QUALITY OF LIFE IN ELDERLY KNEE OSTEOARTHRITIS PATIENTS CASE REPORTS

***Dr. Jayasheela.M.Goni**
PHD Scholar,Parul Institute Of Ayurved
Parul University ,Vadodara
****Dr Hemanth D Toshikhane**
Dean Faculty Of Ayurveda
Principal
Parul Institute Of Ayurved,Parul University,Vadodara

ABSTRACT INTRODUCTION

Osteoarthritis(OA), is the most common musculoskeletal condition seen in elderly patients above 60 years. The study reveals that 10% of the global Geriatric population is suffering from osteoarthritis. Osteoarthritis of the knee is a major cause of mobility impairment, Clinical and functional changes caused by Osteoarthritis(OA) influences the quality of life(QL)of elderly people resulting in reduced independence in older adults. Osteoarthritis is more common in women than men, 45% of women over the age of 65 years have symptoms while radiological evidence is found in 70% of those over 65years. In this case report Leech therapy which is in practiced in Ayurveda since many years and suitable for elderly female patient is administered as co- therapy along with physio therapy. Leech therapy is beneficial in reduction of pain, tenderness, stiffness, and swelling, also enhances the quality of life, in elderly female patient of Knee Osteoarthritis

CASE PRESENTATION

I Report two cases of elderly women suffering from knee osteoarthritis visited my OPD of Khemdas Ayurved Hospital,Teaching Hospital of Parul Institute of Ayurved and Research, Ishwarpura Vadodara, Gujarat, Patient number 1 was a 65year old elderly woman not obese, came with a 3-year history of progressively worsening pain in both knees. She showed all the clinical presentation of knee osteoarthritis, not undergone any previous knee surgery. This resulted in restricted mobility and affected her daily routine Patient number 2 was a 67year old elderly woman not obese, came with 5-year history of progressively worsening pain in both knees.

Patient number 1 received the treatment Physiotherapy. The duration of the treatment was total period of 4 weeks (28 Days). Intervention will be 3 therapy sessions per week, each session is 30 minutes‘ duration Patient number 2 received the treatment Leech therapy as

co- therapy along with physio therapy. The duration of the both physio therapy and leech therapy treatments were for total period of 4 weeks (28 Days). Intervention will be for 3 therapy sessions per week, each session is 30 minutes‘ duration. Patients has to take the treatment in OPD.

CONCLUSION:

The rate of improvement was evaluated using Visual Analogue Scale and WOMAC Osteoarthritis Index, shown significant results in the patient who has taken leech therapy as co therapy along with physiotherapy as compared to the patient who has taken physiotherapy alone. There is considerable improvement in reduction of pain, stiffness, also improvement in the mobility. This study aims in bringing quality of life in elderly knee osteoarthritis patients visiting at Khemdas Ayurved Hospital at Parul University.

AGING CHANCES WHICH INCREASE RISK OF WOUNDS AND DECREASES WOUND HEALING

***Dr.Megha jadhav**

*PGscholar,Department of ShalyaTantra,Paru lInstitute of Ayurveda ,Vadodara

****Dr. Vivekanad Kullolli**

** professor, department of Shalya Tantra, Parul Institute of Ayurveda, Vadodara, Gujarat

*****Dr.Hemant Toshikhane**

***Dean and Principal, Faculty of Ayurveda, Parul Ayurvedic Hospital,

Parul University,Vadodara, Gujarat

ABSTRACT

Aging is the process that reduces the number of healthy cells in the body. -Therefore, body looses it's ability to respond to the challenges (external as well as internal stress) to maintain homeostasis.During aging, all the physical, psychological and social changes occurs in multi-dimensional aspectsThe leading causes of morbidity in old aged people are inflammatory an degenerative conditions such as arthritis, diabetes, osteoporosis, Parkinson's Disease, Urinary system related problems etc.There are various causative factors which increases the risk of wounds in elderly and at the same time, decrease the wound healingThere is a general consensus that wounds heal more slowly in the elderly population and that all phases of the wound healing process are affected.Aging is accompanied by decreased inflammatory and proliferative responses, delayed angiogenesis, delayed remodeling, and slower re-epithelialization which is called as 'Natural Delays' in old individualsThe multifactorial nature of wound healing in the elderly makes it difficult to determine whether observed healing problems are attributable to results of aging or other factors.Healing is affected by multiple factors in addition to patient age, which itself is not a dependable indicator of physiologic health. Some of these factors are disease, nutrition, perfusion, skin quality, environment, and individual responses to life events.It is particularly difficult for the aged patient to sustain the motivation to participate in care required during the healing process when cascading problems are allowed to build on the decreasing functions and reserve capacities of aging body systems and deplete available energy levels.Assessment of each individual is required because of the wide variety of aging changes and healing responses seen in aged patients.Compared with a younger adult, the aged patient generally heals well, following the same healing process but at a slower rate.Wound healing for the aged can be optimized through techniques of energy conservation, correction of existing problems, and management of risks related to aging and the individual patientIn this paper we will understand

the changes in aging skin, co-morbidities that can lead to chronic wounds, recognise the palliative wounds and challanges of palliative wound care.

KEY WORDS-

Wound healing ,Aged patients ,Chronic wounds, Delayed would healing

INTRODUCTION

During aging, all the physical, psychological and social changes occurs in multi-dimensional aspects. The leading causes of morbidity in old aged people are inflammatory and degenerative conditions such as arthritis, diabetes, osteoporosis, Parkinson's Disease, Urinary system related problems etc. There are various causative factors which increases the risk of wounds in elderly and at the same time, decreaes the wound healing. Non healing wounds, which include venous leg ulcers (VLUs), diabetic foot ulcers (DFUs), arterial insufficiency, and pressure ulcers (PUs), disproportionately affect older adults and impose substantial morbidity and mortality on millions of older people. The great majority of non healing wounds are associated with conditions more common in older than younger individuals, including vascular disease, venous insufficiency, unrelieved pressure, and diabetes mellitus. In addition, an increasing number of older adults are undergoing surgery and are at risk of wound complications

BASIC SCIENCE OF WOUND REPAIR AND HHEALING-

Biology of Wound Healing, Chronic Wounds, and Aging

The complex process of wound healing occurs in overlapping phases: inflammation, proliferation, angiogenesis, epidermal restoration, and wound contraction and remodeling. Important cell types in this process are platelets, which recruit inflammatory cells and form a provisional matrix, and macrophages, which include several phenotypes and regulate the cytokine environment in the wound, which influences proliferative responses and wound closure. Matrix metalloproteinases (MMPs) are active throughout wound healing, aiding in phagocytosis, angiogenesis, cell migration during epidermal restoration, and tissue remodeling.

DISCUSSION

Aging is accompanied by decreased inflammatory and proliferative responses, delayed angiogenesis, delayed remodeling, and slower re-epithelialization which is called as 'Natural Delays' in old individuals.

Compared with a younger adult, the aged patient generally heals well, following the same healing process but at a slower rate. Wound healing for the aged can be optimized through techniques of energy conservation, correction of existing problems, and management of risks related to aging and the individual patient

Goals-

1. Understand changes in aging skin

2. Understand comorbidities that can lead to chronic wound

3. Recognize palliative wound care

Intrinsic changes in aging skin-

6. Diminished sensation to light touch and pressure
7. Reduced sebum secretion
8. Decreased ability to produce Vitamin D3
9. Decreased pilosebacious units, sweat glands and subcutaneous fat
10. Reduced elastin production

Extrinsic changes in aging skin-

18. UV radiations
19. Cigarette smoking – Cigarette Smoke has over 4,000 chemicals including pro-oxidants, free radicals, and nitric oxide which Directly induces oxidative stress and other adverse chemical reactions
20. Ozone- is a gaseous oxidant that also directly induces oxidative stress, decreases antioxidants such as Vitamin C and E
21. Airborne particulate matters
22. Co morbaidities that impact skin
23. Altered nutritional status
24. Altered hormone levels (Estrogen, Testosterone)
25. Anemia
26. Atherosclerosis, decreased perfusion
27. Venous insufficiency
28. Diabetes with microvascular and neurologic changes
29. Any source of edema: CHF, Venous stasis etc
30. Any source of hypoxia: COPD, OSA, etc
31. Low output state: CHF, shock
32. Colonization of skin with fungus and pathogenic organisms and multiple resistant bacteria
33. Pharmacologic compromise: corticosteroids, immunomodulators
34. Obesity, lymphedema

Palliative approach to wound care-

- Identify the goals of care: cure vs comfort
- Educate the patient and family
- Emotional support
- Prevent further skin deterioration and infection
- Optimize pain management and other symptoms
- Encourage the entire care team, including physician and family

- Reconsider heroic measures: Repeated hospital transfers/ Sharp debridements/ Operative procedures/ Skin grafts
- Burdens vs benefits of procedures

Challenges of Palliative wound care-

Giving up on palliative wound care

Family reluctance

Physician reluctance

Lack of information about the severity and/or irreversibility of illness

Pressure injuries - commonly viewed as a failure of the caregivers

UNANSWERED QUESTIONS, FUTURE DIRECTIONS, AND RESEARCH CHALLENGES

Future research will require common definitions and standardized procedures for data collection and will need to address the analytical challenges associated with studying older adults, such as population heterogeneity, missing data from death or drop-outs, limited sample sizes, and variable follow-up times. Valid clinical and individual measures, particularly those of most value to the individuals, also are needed. With better measures and more data, the FDA might accept additional endpoints for clinical trials in wound care, particularly in older adults. Common comorbidities are a major concern in geriatrics and therefore should be explored in clinical trials and in basic and preclinical studies

CONCLUSION

With increase in life expectancy and more people living with chronic illness we are caring for frail population with increased risk of developing wounds.

Inter disciplinary action to the wound care is needed

Recognition of palliative wound has the potential to curtail suffering and decreases health care costs.

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EFFECTIVENESS OF AYURVEDA IN GERIATRIC UTI

***Dr. Shilpa S,**

Second year PG Scholar

****Dr. Rajeshwari P. N**

Associate Professor,

Department of Shalya tantra, Amrita School of Ayurveda, Kollam, Kerala

INTRODUCTION

Urinary Tract Infection (UTI) is the second most common disease in geriatric population due to the immunological aging and more prone to bacterial infections. Urine and faecal incontinence, dehydration, impaired cognitive function, and limited activity increase their susceptibility to infections.1 Factors facilitating the development of UTI include pelvic prolapse, cystocele, rectocele, bladder diverticulum, urinary reflux, incontinence, lack of perineal hygiene, vaginal atrophy, oestrogen deficiency in women and prostate diseases in men. Mental status changes, immunosuppression, DM, neurological diseases, invasive procedures, strictures, and anatomical changes are among the main risk factors in the elderly. UTI occurs at any part of the urinary tract.1

It occurs when the bacteria mostly Escherichia coli (E. coli) enters the bladder or kidney and begins to grow. An infection occurs when bacteria get into the bladder or kidney, often starts at the opening of urethra, and begin to grow. Abnormalities of the urinary tract that hinder the flow of urine set the stage for an infection.

In allopathy system, antibiotic therapy for its treatment. But antibiotic resistance is the drawback. Ayurveda has proved its efficacy in managing UTI successfully. It could be corelated to pittaja mūtrakr̥cchra in Ayurveda

MATERIALS AND METHODS

A 65-year-old female patient came to the OPD of Amrita School of Ayurveda with the c/o severe pain in lower abdomen, burning sensation during micturition and itching in the vaginal area.

Advised urinalysis and urine culture and sensitivity. Klebsiella species were isolated.

Given Dhātrī mix (developed in Department of Shalyatantra) along with strict pathya for 10 days.

RESULTS

After 10days, no organism isolated and other parameters became normal.

DISCUSSION

UTI being a serious disease which has potency to damage the kidneys need to be identified and treated at the earliest. Ayurveda has good scope and is safe and efficient in the antibiotic resistant era. In this case as we have aimed to treat the case with minimum number of medicine and careful advisal of pathya. The symptoms like pain, itching relieved from about 4th day. The overall treatment was successful.

KEY WORDS-UTI, Ayurveda, Mūtrakr̆cchra

INTRODUCTION

Urinary Tract Infections (UTI) is the second most common disease in geriatric population due to the immunological aging and more prone to bacterial infections. Urine and faecal incontinence, dehydration, impaired cognitive function, and limited activity increase their susceptibility to infections.1 Factors facilitating the development of UTI include pelvic prolapse, cystocele, rectocele, bladder diverticulum, urinary reflux, incontinence, lack of perineal hygiene, vaginal atrophy, oestrogen deficiency in women and prostate diseases in men. Mental status changes, immunosuppression, DM, neurological diseases, invasive procedures, strictures, and anatomical changes are among the main risk factors in the elderly. UTI occurs at any part of the urinary tract.1

It occurs when the bacteria mostly Escherichia coli (E. coli), which live in the bowel (colon) and around the anus enters the bladder or kidney and begins to grow. An infection occurs when bacteria get into the bladder or kidney, often starts at the opening of urethra, and begin to grow. Abnormalities of the urinary tract that hinder the flow of urine set the stage for an infection.

UTIs are among the most common presenting causes of sepsis in hospitals, and urinary tract infections have a wide variety of presentations. Some are simple UTIs that can be managed with outpatient antibiotics and lead to almost universally good outcomes. On the other end of the spectrum, florid urosepsis in a patient with comorbidities can be fatal. There are several risk factors that can complicate urinary tract infections and lead to treatment failure, repeat infections, or significant morbidity and mortality. It is vitally important to determine if the patient's infection may have resulted from one of these risk factors and whether the episode is likely to resolve with first-line antibiotics. Complicated urinary tract infections are those that carry a higher risk of treatment failure, and typically require longer antibiotic courses and often additional workup. Complicated urinary tract infections include those that occur: in males, in pregnant females (including asymptomatic bacteriuria), as a result of obstruction, hydronephrosis, renal tract calculi, or colovesical

fistula, in immunocompromised patients or the elderly, due to atypical organisms, after instrumentation or in conjunction with medical equipment such as urinary catheters, in renal transplant patients, in patients with impaired renal function, or after prostatectomies or radiotherapy. Additionally, urinary tract infections that recur despite adequate treatment are complicated.[2]

In allopathy system, antibiotic therapy for its treatment. But antibiotic resistance is the drawback. Ayurveda has proved its efficacy in managing UTI successfully. The śarīra is composed of three fundamental constituents viz, dosha, dhātu and mala. Their state of equilibrium is essential for the maintenance of health. Mala (waste products) are eliminated out of the body. When there is any impairment or disturbance in their normal function or impairment in kledavāhana by mutra due to its vitiation by vitiated doshas, they in turn vitiate their mārga or srotas which is called as mūtravaha srotoduṣṭi. UTI could be corelated to pittaja mūtrakr̲cchra in Ayurveda.

PATIENT INFORMATION

A 65-year-old female patient came to the OPD of Amrita School of Ayurveda with the c/o severe pain in lower abdomen, burning sensation during micturition and itching in the vaginal area which is gradually increasing in severity for the past 3 days.

AYURVEDA DIAGNOSIS

The śarīra is composed of three fundamental constituents viz, dosha, dhātu and mala. Their state of equilibrium is essential for the maintenance of health. Mala (waste products) are eliminated out of the body. When there is any impairment or disturbance in their normal function or impairment in kledavāhana by mutra due to its vitiation by vitiated doshas, they in turn vitiate their mārga or srotas which is called as mūtravaha srotoduṣṭi.

In Pittaja mūtrakr̲cchra the subject complains of śūlayukta (dysuria), raktayukta (haematuria), dāhayukta (burning sensation), and muhurmuhur mūtrapravr̲tti (increased frequency) etc. In present era Pittaja mūtrakr̲cchra is common feature. Dysuria, burning micturation and increased frequency of urination etc are the complaints of UTI (cystitis). So, UTI could be related to Pittaja mūtrakr̲cchra in Ayurveda.

TIMELINE

DATE	FOLLOW UP DETAILS	MEDICINES	IMPRESSION
16-09-2021	Urinalysis reveals cloudy urine, acidic, presence of pus cells, albumin, sugar and epithelial cells and bacteria. Culture and sensitivity revealed the presence of Klebsiella species.	Dhātrī mix 1 teaspoon powder boiled in 1 glass water: BD b/f	Dysuria, haematuria, itching in vaginal region
27-09-2021	All parameters reached normal limits. Bacteria	No medicines	All symptoms relieved
	absent		

PATHYA ADVISED

Yava, gokṣūra, kūśmāṇḍa, ṣāṣṭika śāli, kulattha, mudga, plenty of water, milk, carrot, mint, ghee, jaggery, buttermilk.

Avoid fried food, salty food, meat, vinegar, pickles, bakery food.

INVESTIGATIONS

DATE	SAMPLE & TEST	PARAMETER	VALUE
16-09-2021	Urinalysis	Appearance	Cloudy
		Protein	Positive (+) mg/dl
		Albumin	Trace
		Sugar	++++
		Reaction	Acidic
		Pus cells	40-45/hpf
		Epithelial cells	30-35/hpf
		Bacteria	++
18-09-2021	Urine- Culture & Sensitivity	Organism isolated	Klebsiella species
27-09-2021	Urinalysis	Pus cells	1-2/hpf
		Albumin	Nil
		Epithelial cells	4-6/hpf
		Sugar	+
		Appearance	clear
		Bacteria	Absent

RESULTS

All the symptoms got relieved and the urine parameters reached normal range and no bacteria was isolated after 10 days of Ayurveda treatment and pathya

DISCUSSION

About 40% of women and 12% of men experience at least one symptomatic UTI during their lifetime, and as many as 40% of affected women show recurrent UTI. In this era of multi drug resistance, Ayurveda medicine is a safe and alternative treatment choice in diseases like UTI. The Ayurvedic medicine acts as mūtrala, dāhahara, mūtravirajanīya, mūtrajanana, krimighna, mūtraviśodhini, aśmarīnāśana.

CONCLUSION

This case report highlights the efficiency of Ayurveda in managing infectious diseases like UTI. Ayurvedic medication is found to be very much effective in improving the general health of the patient. Ayurveda thus proves its potential in replacing antibiotic therapy. Antibiotic therapy is not having promising effects, has side effects, may result in antibiotic resistance in long continued usage, cause economic burden to the patient and also may result in failure of treatment thereby owing to recurrence of the disease which may get complicated over time. So, it can be concluded that Ayurveda is the best treatment choice that could overcome all the drawbacks of the modern treatment and is scientifically proven through the researches.

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MANAGEMENT OF A NEURO-ISCHEMIC ULCER IN A GERIATRIC PATIENT- A CASE REPORT

***Dr. Meghna Vaman Nayak**
Internee
Email Id- meghnanayak1698@Gmail.Com
Contact No: 9637066564
****Dr. Heramb Pundalik Hattikar**
(Corresponding Author)
Assistant Professor,Department Of Shalya Tantra,
Gomantak Ayurveda Mahavidyalaya & Research Centre, Shiroda- Goa Contact No: 9049622740

Abstract

India has become the diabetic capital of the world. Diabetes Mellitus (DM) is a complex-complicated disease affecting most of the vital organs in the body. Diabetes with complications of diabetic foot especially in latter age has become common. The classical triad of diabetic foot ulcer is neuropathy, ischemia and infection including decreased cell and growth factor response, diminished peripheral blood flow and decreased local angiogenesis. Thus patients report to OPD either in early stage of Peripheral Vascular Disease or non-healing ulcer, end stage gangrene, or post-amputation non-healing wound. When patients belong to geriatric population, the treatment becomes more complicated due to various factors like age, underlying health issues, degenerative period of life etc.

In this case an attempt was made to treat a 64 year old male geriatric patient who was a chronic diabetic with uncontrolled sugar level, having left fore-foot amputated stump with necrosed tissue, foul-smelling discharge. Planned treatment protocol with the help of Ayurveda was prescribed after analyzing the detailed history given by the patient and his son (informer). Taking into account the patho-physiology and etiological factors, treatment focused mainly on limb salvage and ulcer healing which showed promising results with healing ulcer. Considering a specific disease elaborated in modern parlance and equating it to a single clinical condition as per Ayurveda is not an apt methodology. Hence the objective of this work is to demonstrate the significance of taking into account all the factors present in the diabetic foot; possible samprapti pattern and designing the treatment. Thus substantiates prevalent grievous complications like neuro-ischemic ulcers can be managed successfully with the help of Ayurveda way of diagnosis and treatment.

Keywords-Geriatrics, Diabetes, Neuro-Ischemic Ulcer, Ayurveda intervention, Case Report

Introduction

In present scenario; sedentary life-style, unhealthy work patterns, stress and mental turmoil and over-nutrition are important etiology of diabetes, as one of the most ubiquitous diseases in the world. And India in this case has become the diabetic capital of the world and gained recognition for the wrong reason. Diabetes mellitus (DM) represents a group of chronic diseases characterized by high levels of glucose in the blood resulting from defects in insulin production or its action or both. Worldwide, the number of cases of diabetes has been estimated to be 171 million, and by 2025, this number is projected to reach 366 million.1 Diabetes is a complex disease affecting most of the vital organ systems in the body and hence people are at a risk for developing grievous health problems that may affect the feet, eyes, kidneys, heart and skin. Diabetes with complications of diabetic foot especially in latter age has become common. The classical triad of diabetic foot ulcer is neuropathy, ischemia and infection including decreased cell and growth factor response, diminished peripheral blood flow and decreased local angiogenesis hence it‘s also called as neuro-ischemic ulcer. And factors precipitating this condition are hyperlipidemia, hypertension, alcohol and cigarette smoking becomes common. These ulcers tend to occur most frequently on the plantar weight bearing surfaces of the foot underneath the pressure point. 2 As the treatment approach is concerned despite of availability of various treatment modalities on medical and surgical grounds, a dependable cure is still elusive. These many options do not withstand to the complexity, generalization and rapid progression inherent to the disease. In its most severe form, critical limb ischemia, patients are often treated with lower extremity amputation. But studies have shown that the risk of contra-lateral lower limb amputation and death after initial lower limb amputation is very high 3. It is said that the wounds/ulcers of the diabetic patient are cured with difficulty4. Even with the latest technology and modern medicine in hand, highly trained medical team around, yet the majority of the diabetic ulcers end up with more or less amputation of the concerned major or minor part of the lower limb. Thus patients report to OPD either in early stage of Peripheral Vascular Disease or non-healing ulcer, end stage gangrene, or post-amputation non-healing wound. When patients belong to geriatric population, the treatment becomes more complicated due to various factors like age, underlying health issues, degenerative period of life etc. Considering a specific disease elaborated in modern parlance and equating it to a single clinical condition as per Ayurveda is not an apt methodology. However for better parallel understanding we can think on lines of madhumeha5janya dushta vrana and gambhir vata-raktajanya6 vrana as per our science. Prevalent grievous complications like neuro-ischemic ulcers can be managed successfully with the help of Ayurveda way of diagnosis and following planned treatment protocol without any adverse effects.

Case report

In this case, a 64 year old/male geriatric patient came on wheelchair accompanied by his son to the OPD-Department of Shalya Tantra, Kamakshi Arogyadham, Shiroda-Goa because he had his left forefoot-TMT amputation done with stump floored with necrosed tissue. On history taking, it was learnt that he was hypertensive and a chronic diabetic (IDDM) with uncontrolled sugar level. Personal history revealed he was an alcoholic since many years. Trauma as the initial cause for ulcer to develop on second toe of left foot, later superimposed by infection and underlying uncontrolled diabetes acutely manifested into gangrenous changes of the foot. For which he was admitted in a multispecialty hospital, underwent TMT amputation with other supportive treatment. On clinical examination, vitals found to be normal, peripheral pulses feeble, Arterial Doppler study of left leg dated 12/4/21, showed diffuse atherosclerotic changes in the proximal anterior tibial and posterior tibial artery –having low monophasic wave forms. Distal anterior tibial and posterior tibial arteries showed no color flow. His HbA1C- glycolated blood report‘s observed value was 8.8% with Estimated Average Glucose (eAG)-205 mg/dl as dated on 14/4/21. Based on clinical presentation and Arterial Doppler report the case was diagnosed to be of madhumehajanya dushta vrana /gambhirvata-raktajanya vrana. The patient was admitted to indoor patient department (IPD) for further management where planned treatment protocol with the help of Ayurveda was prescribed after analyzing the detailed history given by the patient and his son (informer). Taking into account the etiological factors, precipitating factors and patho-physiology, treatment focused mainly on limb salvage and ulcer healing which showed promising results with healing ulcer the details of which will be elucidated further.

Examination

General: The patient was stable, afebrile and conscious during all the follow-ups. Medium built with difficulty in walking. He was of heena Sara- madhyama satva. P/A was soft-non tender. Pulse rate, respiratory rate and body temperature were within normal limits. Pallor- was mildly present while cyanosis, clubbing was absent. Bowels were passed every day, was of medium to hard consistency and frequency of urination was around 7-8 times/day. He had appetite for food with normal to disturbed sleep pattern due to the wound.

Local: TABLE 1 WOUND EXAMINATION (FIGURE 1)

Site	Left Leg (forefoot)
Number	1
Shape (vrana-akruti)	Irregular
Edge (vranaustha)	Sloping Edge
Floor (vrana tala)	Slough, Necrosed Tissue
Surrounding area/ skin	Blackish skin discoloration, loss of complexion with lack of hair,
Smell (vrana-gandha)	Foul-putrid

Peripheral Sensation	Altered (reduced) sensation due to neuropathy
Lymph nodes	Left Inguinal nodes mildly swollen

Examination of Right leg showed signs evident of peripheral vascular insufficiency.

Modern Medication History TABLE 2 MODERN MEDICATION HISTORY

MEDICINE	**DOSAGE**
Inj. Human Actrapid	6 -8-8 units (S/C)
Inj. Lantus S/C	0-0-10 units (S/C)
Tab. Stiloz (50mg)	1-0-1
Tab. Vitamin C (500 mg)	1-1-1
Tab. Cefixime (200mg)	1-0-1
Tab. Ecosprin 75	0-1-0
Tab. Rutoheal	1-0-1
Tab. Stator (40mg)	0-1-0

Ayurveda Therapeutic intervention:

Based on the understanding of samprapti of vatarakta, madhumeha, vrana the following treatment protocol was adopted

First course TABLE 3 –BASTI

Yoga Basti	Niruha- Manjishtadi Kshara Basti	450 ml	8 days
	Anuvasana – Guduchi Taila	60 ml	

TABLE 4 – VRANA KARMA

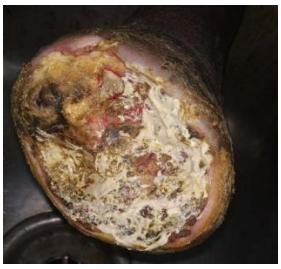
Kshara Karma	Pratisaraneeya Apamarga Kshar
Vrana Dhavana	Vacha-haridradi ganakashaya
Vrana Dhupana	vacha, haridra, guggul, vidanga, jatamansi, karpura
Taila Pratisarana	Jatyadi taila and nirgundi taila

TABLE 5– INTERNAL MEDICATIONS

Patient was advised to continue with Insulin and Tab. Ecosprin 75

MEDICINE	DOSAGE		DAYS
Vacha-haridradi gana kashaya	Decoction	50ml-50ml (Morning & Evening Empty Stomach)	Continued
Cap. Grab(Green Remedies) Vranapahari Rasa, Triphala guggulu, Gandhaka rasayan, Arogyavardhini, Guduchi, Manjishtha		1 TID	Continued
Suvarnaraja vangeshwara **Darvi** **Haridra** **Amalaki**	25 mg 750 mg 1 gm. 1 gm.	Combined Dose 1 BD	Continued
Tab. Shilajita Vati	500 mg	1-1-1	Continued
Tab. Krumikuthara Rasa	500 mg	1 HS	15 days

•Anupana – Warm Water



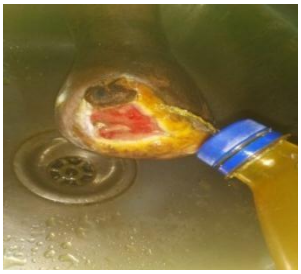
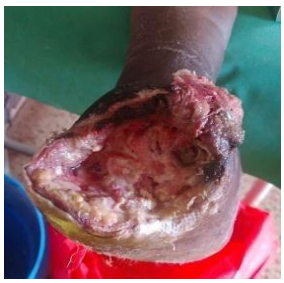


Fig.1 Kshara Karma **Fig.2 Vrana Dhawana**

Pathya: Patient was advised to avoid alcohol, smoking, day sleep and heavy meals throughout the course of treatment and thereafter.

Results:

During the course of treatment, we found that there was improvement in the general health condition of the patient and the ulcer was in a healing stage with gradual development of red granulation tissue. The patient has continued with the treatment with local vrana-karma and internal medications. Patient has resumed walking short distances with support.



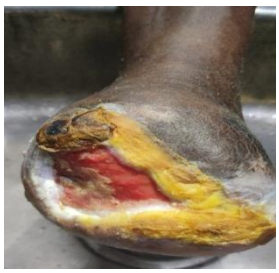


Fig 3 Before Treatment Fig 4 After Treatment (Healing Stage)

Discussion

Vatarakta is explained as a disease manifested because of avarana pathology which can very well be co-related with atherosclerotic peripheral arterial disease which later causes neurogenic or neuro-ischemic ulcers especially in Geriatric patients owing to their poor state of health. While discussing the treatment of vatarakta, Acharya Charaka has explained use of Shilajatu in "Margavarodha janya samprapti" caused by dushit kaphameda. As Shilajatu has the potency to do lekhana and brumhana simultaneously 7. The yukti of using Vachaharidradi gana kashaya 8 is justified as the samprapti transcends from involvement of dushit kapha (Bahudrava Shleshma) and meda causing avarodha of vata and rakta. The drugs from the kashaya are srotoshodhaka, lekhaniya and amapachaka and hence proved beneficial in the case. Jatyadi taila being used for vrana shodhana and vrana ropaka was used in addition with nirgundi taila. Nirgundi is krumighna and dushtavrana vishodhaka, and reduces foul-smell (as the synonym-

"sugandhika").Suvarnarajavangeshwara rasa9 is Antioxidant and Anti-inflammatory. Giving Rasayana in Geriatric patients10 is dhatvagni vardhaka and vrishya & it is an apt rasayana in geriatrics. Haridra -amalaki are agrya gana dravyas explained for meha roga.Since there is involvement of ama, dushit kapha and meda, it seems favorable condition for manifestation of krimi. This can further cause worsening of condition. Hence Krumi kuthara rasa was used for a period of 15 days. The dravyas are sukshma, tikta, katu pradhana and together do lekhana, sroto-shodhana after which healing is achieved.Cap. Grab is anti-microbial and anti-inflammatory with broad spectrum activity. Shashti upakrama11 is a boon given by Acharya Sushruta for management of wounds. Amongst which Basti has both local & systemic affects. Basti stimulates the Enteric Nervous System and thus it can influence CNS and all bodily organs. It thereby restores the physiology at molecular level. It also acts on the inflammatory substances like prostaglandins, catecholamines and vasopressin etc. While anuvasana basti causes Vatanulomana, the niruha basti will do kupita marga shodhana thereby normalizing Apana vata. Guduchi is the drug of choice in the management of Vatarakta. Guduchi possess Tikta rasa, Madhura vipaka and is Vatahara, shleshma raktavibandaghnakrut, Rakta prasadaka, Rasayana which is indicated in Vata-rakta avarana condition 12. Studies on Tinospora cordifolia have shown that it is having anti-inflammatory, antioxidant and immunomodulatory action 13. Taila is used mostly for meda-shleshma-vata roga, for giving dardhyatva to the sharir 14 etc. Hence the anuvasana basti was administered with it.Previous studies have shown manjishtadikshara basti to be significantly effective in reducing leg pain in PAD by acting directly on atherosclerosis and inhibition of further manifestation of gangrene by reversing the pathology. Manjishta and other drugs in the Mahamanjistadi Kashaya and Manjishtadi Niruha basti have raktaprasadaka property and indicated in Raktadusti conditions. The main drug manjishta is also known with synonym ―vikasa‖ as it causes vikasa (vasodilation) in sira 15. Added to it rubiadin 16 present in Manjishta has antioxidant property. Gomutra arka acts as debriding agent.

Conclusion-

Knowledge of pathogenesis and complications of a disease according to Ayurveda and Modern science is necessary for apt planning of the treatment. In modern science, the approach for neuro-ischemic ulcers with acute limb ischemia is amputation but the risk of contra-lateral limb amputation and death after initial lower limb amputation is proved to be high. In an attempt to treat neuro-ischemic ulcer in geriatric patient purely on the principles of ayurveda where combination of Internal and External medications was used; showed significant results. With this success, it can be concluded that neuro-ischemic ulcers can be treated by using planned Ayurveda treatment protocol.

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