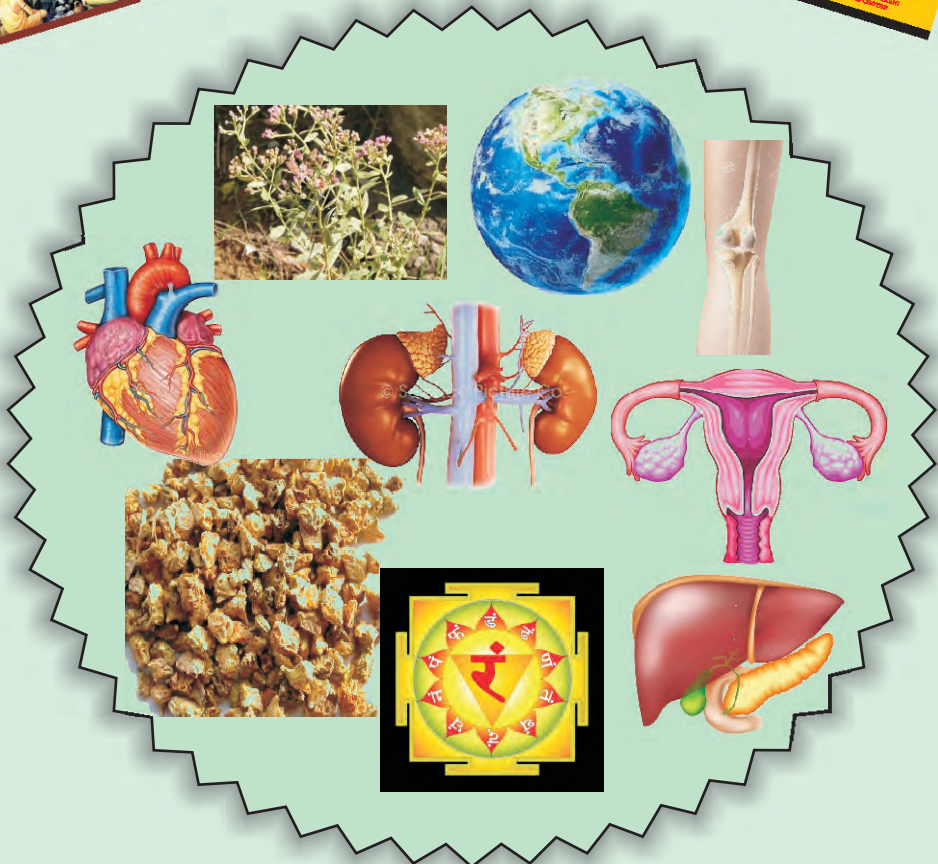


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International Ayurveda Research/Samhita/ Propagation Conference 26th April 2015, Pune

Publication of D. I. 122 Issue



L. to R. - Dr. Mrs. Kavita Indapurkar, Dr. J. K. Barde, Professor and Research Guide, Dr. P .H. Kulkarni, President International Ayurveda Open University and Dr. Sudhakar Joshi Ex director of Ayurveda Maharashtra State



Launching of English Charak Samhita, Ayurveda Book in Gujrathi Language And Ayurveda Galaxy The e-Journal



Dr. P. H. Kulkarni with the Dignitaries & Delegates



Dr. P. H. Kulkarni with the Dignitaries & Team members of Conference



Dr. K. C. Ballal receiving the Award " International Best Social Worker 2015 Award



Dr. Mrs. Indapurkar, receiving Prestigious Post Doctoral Fellowship of Institute of Indian Medicine.



Prof. Dr. Dharmapalan, Kerala, receiving the Award International Best Samhita Researcher 2015



Dr. Vijay Jadhav, Ayurveda Lokaguru International Ayurveda Overseas Propagation Gem Award.



Prof. Dr. Sanjay Pund, Ahamadnagar, India International Ayurveda Samhita Gem 2015 Award

A new center for Ayurveda and Paediatrics was inaugurated on Sunday, 24 May 2014 at Akhila Apartments, Karvenagar, Pune, India.

The day began with the Pooja at the new premises the hands of Mr. Nandkumar Rakshe and Mrs. Jayshri Rakshe. Later in the afternoon friends and relatives from various places of Maharashtra visited the venue.

The inaugural function started in the evening. Veteran Ayurveda guru Prof. Dr. P. H. Kulkarni inaugurated the clinic.

The department of Ayurveda was inaugurated by Prof. Dr. Satish Dumbre (Dean, Faculty of Ayurveda, Maharashtra University of Health Sciences), The pediatrics department was inaugurated by renowned Orthopedic surgeon Dr. Sattyasheel Naik. Founders Dr. Sarika Rakshe (Pediatrixian) and Dr. Atul Rakshe (Ayurvedacharya) welcomed the guests.

Actor politician Dr. Amol Kolhe, Singer musician Dr. Saleel Kulkarni, Ex. Forest, Home minister of Maharashtra state Shri. Babanrao Pachpute, Veteran Gynaecologist Dr. Arvind Sangamnerkar, Dr. Susheel Wakchoure (District health officer, Nasik District), Shrimati Pratibha Pachpute (Chairman Parikrama Education campus), Sagar Kulkarni (Director, Oriental Ayurveda products pvt. Ltd.), Physician Dr. Narendra Jawadekar and hundreds of patients, friends and well-wishers were present to bless the occasion.

This state-of-the-art clinic is established on the elements of Maharashtrian architecture and has a specially designed children's clinic.

This premises is supported by Beyond Horizons Health And Social Circle (BHHAs, India). It will host various programs, Ayurveda courses and activities of Societa Italiana Prof Kulkarni Ayurveda(SIPKA, Italy), PRAANAM (Spain), YUKTI (Portugal). This center will work as an office for International Ayurveda Association, Ayurveda Academy and Deerghayu International.

Further information about the activities, treatments and courses of the center can be obtained at www.cozwecare.org or telephone number +91 20 25424260





Mr. Leons Platacis & Dr. Chandrakant Pawar Collaborating Premium Medical Riga ,Latvia with Shashi Clinic, Palus, India



01st Ayurveda Conference on Lifestyle & Ayurveda in Latvia Organized by Dr. C. S. Pawar in Jan 2012



Introducing Ayurved Medical Tourism in Riga, Latvia by Dr. Chandrakant Pawar in July 2014



Dr. Chandrakant Pawar with Maria Ojeda, Barcelona, Spain Overseas Director of Shashi Clinic



Release of Panchakarma Book of Dr. P. H. Kulkarni & Dr. C. S. Pawar at the hands of Illaria Cantoni, Milan Italy



Ayurveda Conference on, Food & Spices to balance Body Mind & Soul organized by Dr. C. S. Pawar & Maria Ojeda in Madrid, Spain in Sept. 2014

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Research : Clinical

EFFICACY OF RASANADYO GUGGUL IN THE MANAGEMENT OF AMAVATA

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ABSTRACT

- This study was conducted to Evaluate the efficacy of RasanadyoGuggul in the management of Amavata.
- 30 patients were selected as per the inclusion criteria with the presenting symptoms of Amavata.
(Vedana, Jwara, Apaka, Trushna, Sandhipida, Sandhistambhata, Sandhishotha, Vibandha, Aruchi, HridayaGaurava)
- The study open randomized trial and all the patients administered Rasanadyoguggul with dose 1 gm. bd. with luke warm water for 45 days.
- The special investigation such as hemogram with ESR. RA factor was carried out to rule out the disease. The mean symptom significantly reduced after the treatment.
- The statistical analysis reveals that there was significant relief of symptoms (P < 0.05) at 5% level of significance.
- During the study period there was no adverse effect of drug noticed during the trials.
- The Rasanadyoguggul is safe and effective in Amavata.

Keywords :

Amavata, Rheumatoid factors, sandhishoola, shotha, Amadosha.

INTRODUCTION

We Indian being a part of this developing world are paying our everything for computing this Development India is one of the fastest developing Nation and future superpower.

People of India have adopted various life style from abroad due to this globalization people & habits have change along with food and time this has made an affective impact on the physical and mental health of the population. People have no time to follow the Rules of Dincharya&Rutucharya. Not even obeying the rule of AharvidhiVisheshayatanas. The trayoupsthambha of the health has collapsed. Which ultimately turned into producing various disease.

NEED FOR STUDY :-

With this fast and exertional life style one can have a lot of physical, mental and social problems. Amavata is the disease faced by fair count of people in the society.

Considering above symptoms described in Ayurvedic texts, modern society may call it as a

Rheumatic Arthritis and Rheumatoid Arthritis deals with unsatisfactory symptomatic treatment steroids, NSAID'S Cytotoxic Drugs surgical management and patient may have disastrous hazards and complications such as severe pain, discomfort, disability considering the failure of other pathies to resolve this disease completely. It is much needed to establish an effective drug acting against it.

AIM :

Clinical study of RasanadyoGuggul in Amavata by taking clinical trials.

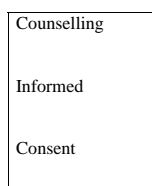
OBJECTIVES

- Conceptual study of Amavata.
- Conceptual study of RasanadyoGuggul.
- Review of literature

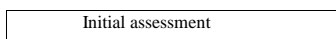
STUDY FLOWCHART

Single blind randomized controlled clinical study design

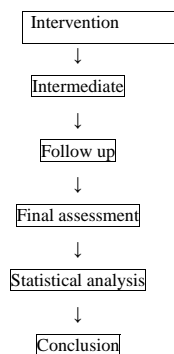
Screening of subjects for inclusion



Randomization



Dietary&behavioraladvise



MATERIALS AND METHODS**DRUG REVIEW**

The disease Amavata, still remains a formidable disease, being capable of producing severe crippling deformities and functional disability. It is characterized by spontaneous remissions and exacerbations, making evaluation of treatment extremely difficult so-called specific drugs may be effective in reducing the disease Amavata. Sometimes to a dramatic and deceiving degree. But manifestation of any disease is a resultant of Dosha Dushya Sammurchhana. Treatment is basically Samprapti Vighatana, so the choice of any drug for the treatment of a particular disorders should be ideally based on the through concentration of the Samprapti Ghataka.

Amavata is a disorder where Ama and Vata are necessary, main clinical feature experience are Sandhishoola, Sandhishotha, Stabdghata, Sandhigaurava, Apaka, Aruchi, Agnimandya, Jwara etc. The line of treatment mentioned in Ayurvedic texts are Langhana, Swedana, Tikta-Katu-Rasa Deepana, Pachana, Virechana, Snehapana and Basti.

RASANADYO GUGGULU

DRUG	LATIN NAME	FAMILY	PART USED	QUANTITY
Rasana	Inula Racemosa Hook	Compositae	Rhizome(Moola)	1
Guggulu	Commiphora mukul Engl.	Burseraceae	Resin	1

Properties of Drugs

DRUG	RASA	VIPAK	VIRYA	GUNA	KARMA
RASANA	Tikta	Katu	Ushna	Guru	Vatashamak
GUGGULU	Tikata	Katu	Ushna	Snigdha	Kapha Vata Nashaka

All drugs are having mostly following properties...

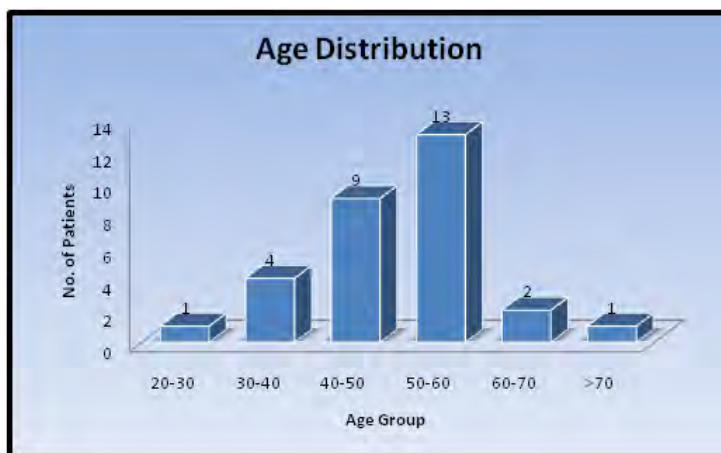
- Karma-Pachan, Vataghna Aamvataghna
- Vipak-Katu
- Guna-Guru, Snigdha
- Virya-Ushna
- Rasa-Tikta

□ ANUPANA

Luke warm water.

Age Distribution

Age Group	Frequency	Percentage
20-30	1	3.3%
30-40	4	13.3%
40-50	9	30%
50-60	13	43.3%
60-70	2	6.7%
>70	1	3.3%
TOTAL	30	100%

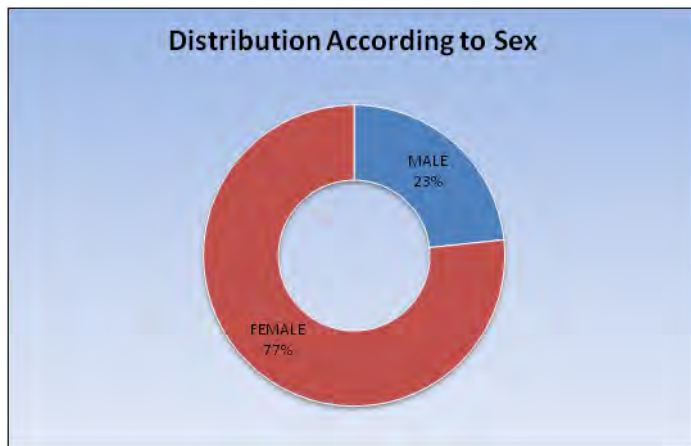
Age Distribution

Out of 30 Patients, 1(3.3%) patients belongs to age group 20-30 years, 4(13.3%) patients belongs to age group 30-40 years, 9(30%) patients belongs to age group 40-50 years, 13(43.3%) patients belongs to age group 50-60 years, 2(6.7%) patients belongs to age group 60-70 years, 1(3.3%) patients belongs to age group above 70 years.

Distribution According to Sex

SEX	Frequency	Percentage
MALE	7	23.3
FEMALE	23	76.7
TOTAL	30	100

Distribution According to Sex

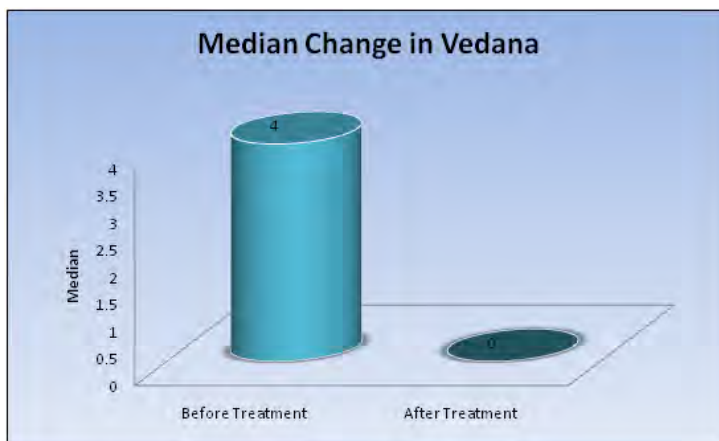


Out of 30 Patients, 7(23%) are male and 23(77%) are females.

Vedana

VEDANA	Median		Wilcoxon Signed Rank Statistic 'W'	P-Value	Result
	Before Treatment	After Treatment			
	4	0	-4.956	0.00	Significant

Vedana

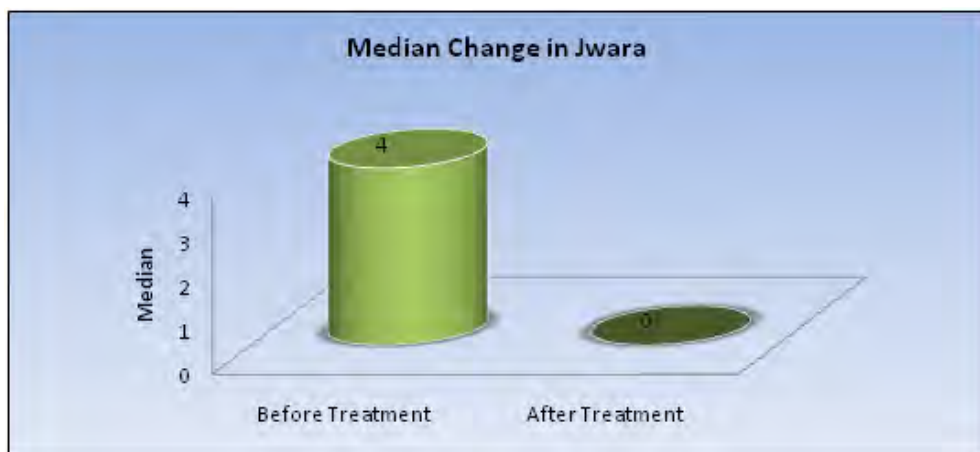


Using Wilcoxon Signed Rank Test, P-Value (0.00) is less than 0.05 hence we can say that, RasanadyoGuggul is significantly effective on Vedana.

Jwara

JWARA	Median		Wilcoxon Signed Rank Statistic 'W'	P-Value	Result
	Before Treatment	After Treatment			
	4	0			

Graph - 5 : Jwara

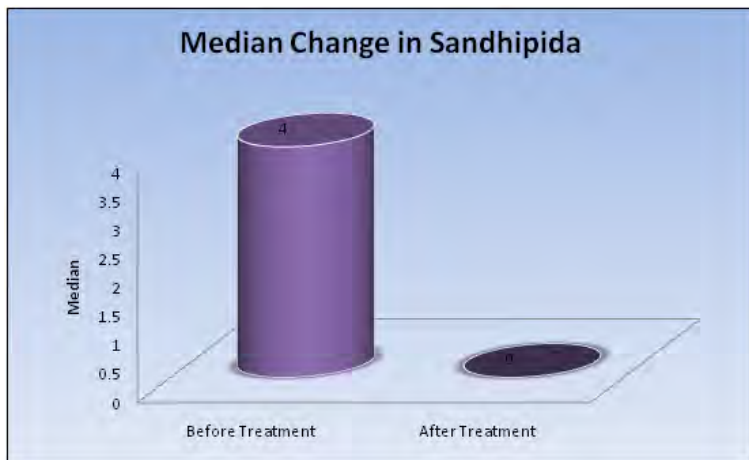


Using Wilcoxon Signed Rank Test, P-Value (0.00) is less than 0.05 hence we can say that, RasanadyoGuggul is significantly effective on Jwara.

Sandhipida

SANDHIPIDA	Median		Wilcoxon Signed Rank Statistic 'W'	P-Value	Result
	Before Treatment	After Treatment			
	4	0			

Graph-11 :Sandhipida

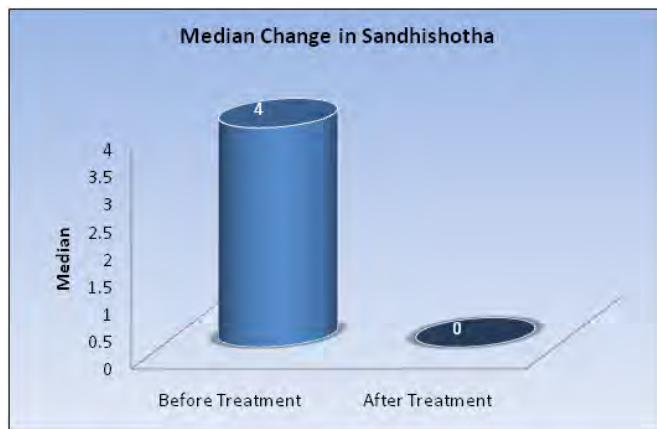


Using Wilcoxon Signed Rank Test, P-Value (0.00) is less than 0.05 hence we can say that, RasanadyoGuggul is significantly effective on Sandhipida.

SANDHISHOTHA

SANDHISHOTHA	Median		Wilcoxon Signed Rank Statistic 'W'	P-Value	Result
	Before Treatment	After Treatment			
	4	0	-4.940	0.00	Significant

SANDHISHOTHA



Using Wilcoxon Signed Rank Test, P-Value (0.00) is less than 0.05 hence we can say that, RasanadyoGuggul is significantly effective on Sandhishotha.

DISCUSSION

AGE

On the observation of age-wise distribution of Amavata it was found that , out of 30 patients, 1 (3.3%) belong to age group 20-30 yrs, 4(13.3%) patients belong to age group 30-40 yrs, 9 (30%) patients belong to age group 40-50 yrs, 13 (43.3%) patients belong to age group 50-60 yrs, 2 (6.7%) patients belong to age group 60-70 yrs, 1 (3.3%) patients belong to age group above 30yrs. The probable cause for the age group 50-60 yrs – due to AamotpadakHetu.

■ SEX

Out of patients, 7 (23%) are male and 23 (77%) are females. Reason behind this, maybe females are mostly Anaemic and having different AamotpadakHetu.

1. VEDANA

■ According to Wilcoxon's Signed Rank Test 'w' RasanadyoGuggul is statistically significant in Vedana.

■ Vedana mostly reduced due to Vataghna karma and SnigdhaGuna of RasanadyoGuggul.

2. JWARA

■ According to Wilcoxon's Signed Rank Test 'w' RasanadyoGuggul is statistically significant in Jwara.

■ Jwara may be reduced due to the Pachan and Vataghna properties of Rasana.

5. SANDHIPIDA

■ According to Wilcoxon's Signed Rank Test 'w' RasanadyoGuggul is statistically significant in Sandhipida.

■ This may be reduced due to Pachana, Vataghna, Amavataghna properties of RasanadyoGuggul.

6. SANDHISHOTHA

■ According to Wilcoxon's Signed Rank Test 'w' RasanadyoGuggul is statistically significant in Sandhishotha.

■ This may be reduced due to the Vata- Kaphashamak property of RasanadyoGuggul.

SUMMARY

Amavata is a widely prevalent disease and affects nearly 0.5% of population (Ref. American Rheumatic Society & WHO). The disease is known to produce the crippling deformities,

which bothers the patient much more. The patients hardly die because of this disease or its complications. The disease has insidious onset with natural exacerbations and remissions. In the present series, the drug has been used in the traditional form of guggul. The main object of this trial was the evaluate the efficacy of RasanadyoGuggul in controlling various lakshanas of the disease Amavata.

- Review of literature was taken to collect the information about Amavata.
- Rasanadyoguggul were manufactured according to the Granth of Bharat BhaishajyaRatnakar 347.
- For this work different samhita, grantha and modern books were consulted.
- For additional information the commentary is on samhita published materials and previous work on the subject was served from these material. Notes were taken and were used in present work as whenever required.
- The patient were selected on the random basis from OPD and IPD department of hospital attached to our institute and all the selected patients signed a written informed consent were taken.
- Study group patient were given RasanadyoGuggul in the dose of 2 gm. with luke warm water morning and evening time (After meals).
- Records were kept during the course of the treatment on the 1st day, 15th day, 30th day, 45th day.
- The findings were converted into various tables and graphs, observation and results were discussed.
- Any side effects or adverse effects were looked for.
- Conclusions were drawn on the basis of observation and results

CONCLUSION

- Vata is pradhandosha in Amavatakapha also helps in producing it.
- Rasanadyoguggul contain Rasa-Katutiktaguna-guru, virya- ushna, vipak- katu and vatakaphashamak which increase the agni and decrease the vatakaphadosha.
- Amavatamuktilakshana were observed in all patient.
- In this study no any side effect and toxicity of drug occurred during treatment.
- Amavata a disease entity with multifactorial origin involving multiple system can be diagnosed clinically with the help of History taking, Physical examination and evaluation with the ARA criteria mentioned for RA. Hence Rheumatoid factors are selected in the present study to buildup the relation between Rheumatoid Arthritis and Rheumatoid factors. The quantified Rheumatoid factors not only help in Diagnosis, Prognosis & confirmation of the clinical diagnosis but also help in planning the right treatment for

each individual. The Rheumatoid factors in the negative reference range do not rule out the diagnosis of Amavata. The interpretation of Rheumatoid factors in relation to AsaatmyajaBhava was not possible as the identification of Rheumatoid factors is through the Biochemical parameters.70% of the patients showed positive Rheumatoid factor titer & revealed statistically significant correlation between severity of Aamavata and Rheumatoid factor titer.

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Research : Clinical

The Efficacy Of Gokshuradi Yoga In Mutrashmari (Renal Calculi)

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Dr. B.B. Kadlaskar, MD, PhD; HOD Department Of Kayachikitsa
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Abstract

This study was conducted to evaluate the Gokshuradi Yoga in the patient suffering from Mutrashmari. 30 patients were selected as per the inclusive criteria with presenting symptom pain, burning, micturition and frequency of urination.

The study was single blind randomized. All the patients administered Gokshuradi Yoga with dosage 2 gm. with dahi as anupan and godugdha as a sahan.

The special investigation such as X-ray of KUB, USG abdomen and pelvis, haemogram, RFT, urine routine was carried out before and after the treatment. The assessment of the treatment was done on 10th, 20th, 30th day.

The Gokshuradi yoga showed significant relief in lakshanas like pain, burning micturition and frequency of urination during /after the treatment. The mean stone size significantly reduced from 4.3 mm. to 1.3 mm. after the treatment.

Statistical analysis reveals that there was significant relief of symptoms ($P < 0.05$) at 5% level of significance and also reduction of size of the stone was significant ($P < 0.05$) at 5% level of significance. During the study period there was no adverse effect of drug noticed by patients. The Gokshuradi yoga is safe and effective in mutrashmari.

Keyword :

Gokshuradi Yoga, Renal calculi, Mutrashmari.

Introduction

The word Ashmari means stone which is formed by root word ashma. The very correct terminology by the name Mutrashmari, reflecting a disease pathogenesis due to accumulation of inorganic substance in the urinary system.

The word Mutrashmari is commonly used to denote urinary calculus. It is common in India, affects children and adults both. Among adults, males are more affected than females. The incidence is about 12% of population.

In present day every person is in hurry and on account of this busy lifestyle, person is unable to pass natural urges (vegasa) in time. Holding the urges like thirst (trushna) and micturition (mutravega) is the common cause of Mutrashmari.

In modern medical science, treatment of Mutrashmari is hydrotherapy, lithotripsy and other surgical intervention etc.

But every patient is either not satisfied or not ready to take this treatment due to high cost, side effects and recurrence. There are so many kalpas on Mutrashmarimentioned in our samhita.

Gokshuradi yoga is one of them. So this drug has been selected for study trial purpose.

AIM

To find out the effect of ayurvedic classical medicine (Gokshuradi yoga) in mutrashmari.

OBJECTIVES

The present study will be undertaken with following objectives:

Primary objective

To find out gokshuradi yoga in relief of subjective symptoms and reduction in size and shape of Mutrashmari.

Secondary objective

- 1) To review selected drug i.e. Gokshuradi yoga and mode of action of its ingredients on Mutrashmari.
- 2) To review and update Mutrashmari as per ayurvedic and modern point of view.

STUDY FLOWCHART

Single blind randomized controlled clinical study design
Screening of subjects for inclusion

Counselling

Informed

Consent

Randomization

Initial assessment

Dietary&behavioraladvise

Intervention

?

Intermediate

?

Follow up

?

Final assessment

?

Statistical analysis

?

Conclusion

MATERIAL AND METHODS**MATERIAL** : Gokshuradi yoga

NO.	DRUG	LATIN NAME	FAMILY	PART USED	QTY.
1.	GOKSHUR	Tribulusterrestris Linn.	Zygophyllaceae	Whole plant	1 part
2.	KANTAKARI	Solanumxanthocarpum Sch. & Wen	Solanaceae	Rhizome	1 part
3.	KOKILAKSH	Asteracanthalongifolia Ness	Acanthaceae	Fruit	1 part
4.	ERAND	Ricinuscommunislinn.	Euphorbiaceae	Rhizome	1 part
5.	BRUHATI	Solanumindicum	solanaceae	Rhizome	1part

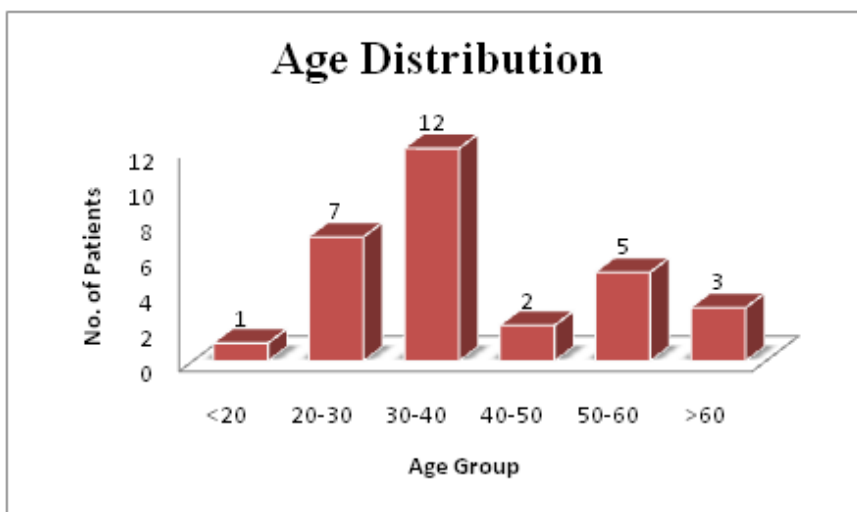
DRUG	RASA	VIPAK	VIRYA	GUNA	KARMA
GOKSHUR	Madhur	Madhur	Sheeta	Guru, Snigdha	Bhedan, Mutravirechan, Bastishodhana
KANTAKARI	Tikta, Katu	Katu	Ushna	Laghu, Ruksha	Kledana, Mutral
KOKILAKSH	Madhur	Madhur	Sheeta	Guru, snigdha	Anulomana, Vrushya
ERAND	Madhurtiktakatu Katu	Madhur	Ushna	Snigdha, tikshna, sukshma, guru	Shodhana, Anulomana, Deepana, Pachana
BRUHATI	Tikta, katu	Katu	Ushna	Laghu, ruksha, tikshna	Deepana, pachana, anuloman

Administration of Drug

Treatment	GokshuradiYog
no. of patients	30
Dosage	2 gms. Morning & evening
Kal	Apankal
Sahapana	Godugdha
Anupana	Dadhi (Curd)
Route of Administration	Oral
Treatment period & follow up	30 day
ASSESSMENT	First day of treatment. and last day of completion of treatment
FOLLOW UP	10 th , 15 th , 30 th day

OBSERVATIONS AND RESULTS**AGE WISE DISTRIBUTION OF 30 PATIENTS OF MUTRASHAMRI**

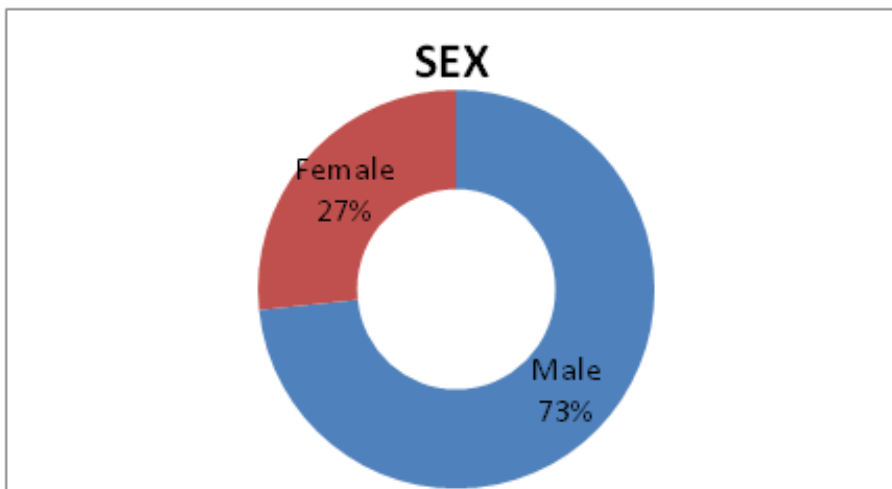
Age Group	Frequency	Percentage
<20	1	3.3%
20-30	7	23.3%
30-40	12	40%
40-50	2	6.7%
50-60	5	16.7%
>60	3	10%
TOTAL	30	100%

AGE WISE DISTRIBUTION OF 30 PATIENTS OF MUTRASHAMRI

Out of 30 Patients, 1(3.3%) belongs to age group below 20 years, 7(23.3%) belongs to age group 20-30 years, 12(40%) belongs to age group 30-40, 2(6.7%) belongs to age group 40-50 years, 5(16.7%) belongs to age group 50-60 years, 3(10%) belongs to age group above 60 years.

ACCORDING TO SEX DISTIRBUTION OF 30 PATIENTS OF MUTRASHMARI

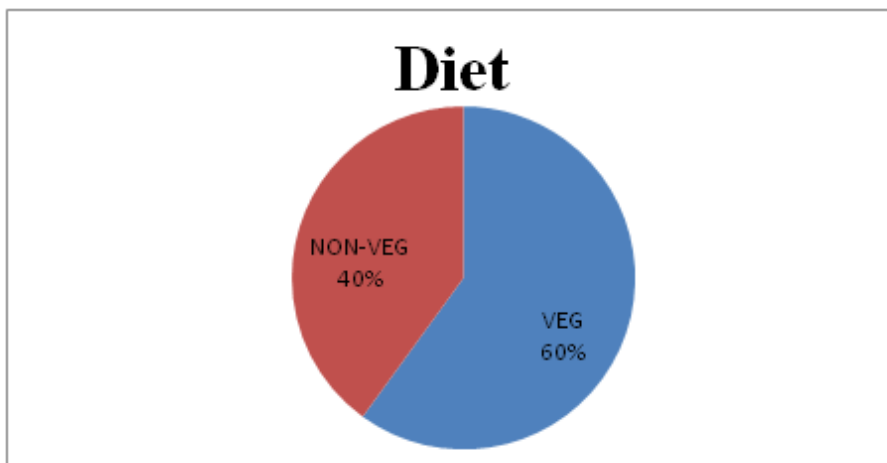
SEX	Frequency	Percentage
Male	22	73.3%
Female	8	26.7%
TOTAL	30	100%

ACCORDING TO SEX DISTIRBUTION OF 30 PATIENTS OF MUTRASHMARI

Out of 30 Patients, 22(73.3%) were male and 8(26.7%) were female.

DIET WISE DISTRIBUTION OF 30 PATIENTS OF MUTRASHMARI

Diet	Frequency	Percentage
Veg	18	60%
Non-Veg	12	40%
Total	30	100%

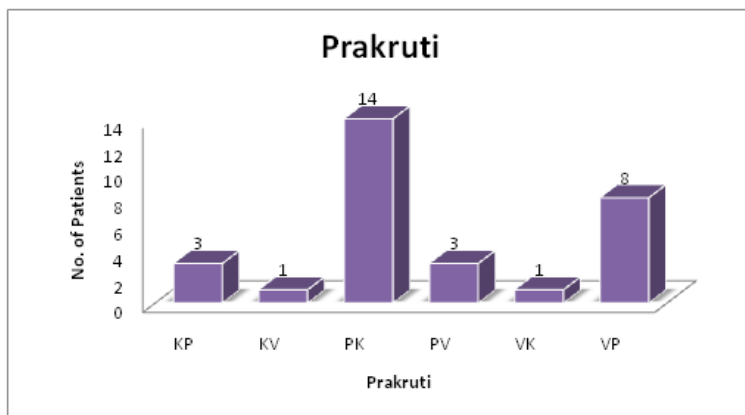
DIET WISE DISTRIBUTION OF 30 PATIENTS OF MUTRASHMARI

Out of 30 Patients, 18 (60%) were vegetarian and 12(40%) were Non-Vegetarian.

SHAREERIKA PRAKRITI WISE DISTRIBUTION OF 30 PATIENTS OF MUTRASHMARI

Prakruti	Frequency	Percentage
PK	3	10%
KV	1	3.3%
KP	14	46.7%
PV	3	10%
VK	1	3.3%
VP	8	26.7%
Total	30	100%

SHAREERIKA PRAKRITI WISE DISTRIBUTION OF 30 PATIENTS OF MUTRASHMARI



Out of 30 Patients, 3(10%) are of Pitta PradhanKaphaPrakruti, 1(3.3%) are of KaphaPradhanVataPrakruti, 14(46.7%) are of KaphaPradhan Pitta Prakruti, 3(10%) are of Pitta PradhanVataPrakruti, 1(3.3%) are of VataPradhanKaphaPrakruti and 8(26.7%) are of VataPradhan Pitta Prakruti

PAIN WISE DISTRIBUTION OF 30 PATIENTS OF MUTRASHMARI

Pain	Median		Wilcoxon signed Rank Statistic 'W'	P-Value	Result
	Before Treatment	After Treatment			
2	1	-4.767 ^a	.000	Significant	

PAIN WISE DISTRIBUTION OF 30 PATIENTS OF MUTRASHMARI



Using Wilcoxon Signed Rank Test, it is concluded that, the effect of Gokshuradi Yoga on Pain was significant ($P < 0.05$) at 5% level of significance.

Median Pain level is significantly reduced from 2 to 1 after treatment.

BURNING MICTURATION WISE DISTRIBUTION OF 30 PATIENTS OF MUTRASHMARI

Frequency of Urination	Median		Wilcoxon Signed Rank Statistic 'W'	P-Value	Result
	Before Treatment	After Treatment			
	2	1	-4.065a	0.000	Significant

Graph -6 :BURNING MICTURATION WISE DISTRIBUTION OF 30 PATIENTS OF MUTRASHMARI



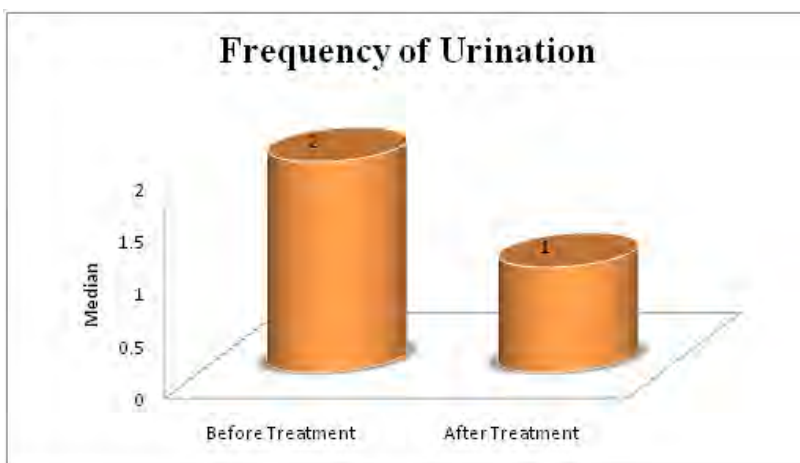
Using Wilcoxon Signed Rank Test, it is concluded that, the effect of Gokshuradi Yoga on Burning Micturation was significant ($P < 0.05$) at 5% level of significance.

Median level of Burning Micturation is significantly reduced from 2 to 1 after treatment.

FREQUENCY OF URINATION WISE DISTRIBUTION OF 30 PATIENTS OF MUTRASHMARI

Frequency of Urination	Median		Wilcoxon Signed Rank Statistic 'W'	P-Value	Result
	Before Treatment	After Treatment			
	2	1	-4.065a	0	Significant

FREQUENCY OF URINATION WISE DISTRIBUTION OF 30 PATIENTS OF MUTRASHMARI



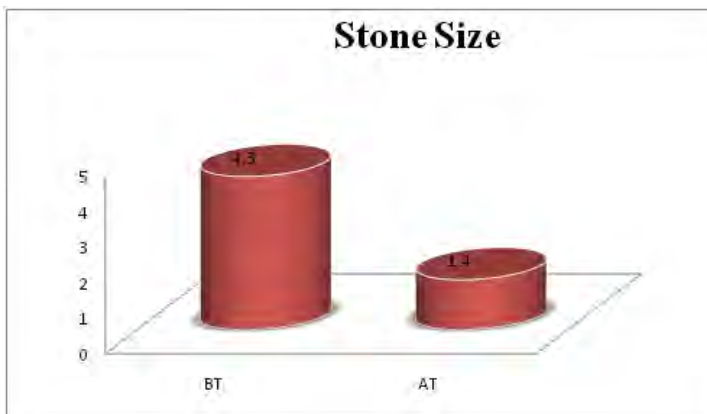
Using Wilcoxon Signed Rank Test, it is concluded that, the effect of Gokshuradi Yoga on Frequency of Urination was significant ($P < 0.05$) at 5% level of significance.

Median value for frequency of urination is significantly reduced from 2 to 1 after treatment.

STONE SIZE WISE DISTRIBUTION OF 30 PATIENTS OF MUTRASHMARI

Size	Mean	Std. Deviation	Std. Error Mean	t-Value	P-Value
BT-AT	2.98333	1.08726	.19850	15.029	.000

STONE SIZE WISE DISTRIBUTION OF 30 PATIENTS OF MUTRASHMARI



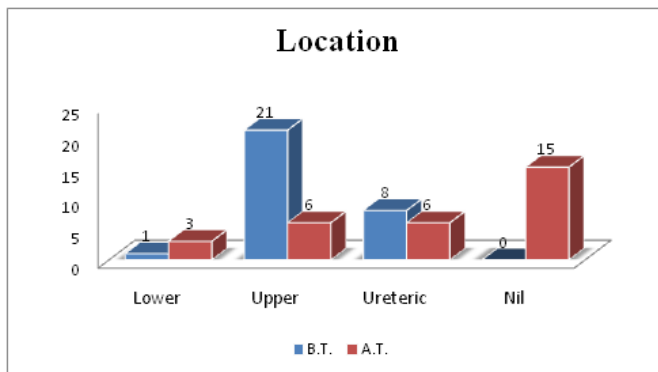
Using Paired t-Test, it is concluded that, the effect of Gokshuradi Yoga on Size of Stone was significant ($P < 0.05$) at 5% level of significance.

Mean Stone size is significantly reduced from 4.3 mm to 1.4 mm after treatment

LOCATION WISE DISTRIBUTION OF 30 PATIENTS OF MUTRASHMARI

Location	B.T.	A.T.
Lower Pole of kidney	1	3
Upper Pole of kidney	21	6
Ureteric	8	6
Nil	0	15
TOTAL	30	30

LOCATION WISE DISTRIBUTION OF 30 PATIENTS OF MUTRASHMARI



Location of mutrashmari is significantly changed after treatment.

DISCUSSION

AGE:-On the observation of Age wise distribution of Mutrashmari, it was found that Out of 30 Patients treated with Gokshuradi yoga , 1(3.3%) belongs to age group below 20 years, 7(23.3%) belongs to age group 20-30 years, 12(40%) belongs to age group 30-40, 2(6.7%) belongs to age group 40-50 years, 5(16.7%) belongs to age group 50-60 years, 3(10%) belongs to age group above 60 years.

The probable cause for this age group might be irregularity of diet or Asatmyaaahar-vihar and less water intake due to their professional responsibilities

SEX:-Sex wise distribution of patients reveals that the highest number of patients were male i.e. 22(73.3%) followed by female 8(26.7%).The male female ratio suggests that male were more susceptible to the disease. This may be due to the habits of tea, coffee, tobacco chewing, more in male. There is another theory that testosterone hormone also plays an important part in the formation of Mutrashmari. Findayson and Richardson postulated that female are having less testosterone level, so they are less prone to disease

PRAKRITI:-Maximum number of patients were possessing Kapha-PittajaPrakriti i.e. 14(46.7%) . KaphaDosh can easily be provoked in KaphajaPrakriti persons, so they are more prone to Kaphaja diseases, among which Mutrashmari is also one. As burning micturition is the one of the main sign of Mutrashmariand PittajaDosh is responsible for that, as prakriti definitely plays an important role in the disease manifestation. In the present study, Kapha-PittajaPrakriti was followed by Kapha-vataja. So, Kapha is the dominant dosha. In Ayurvedic classics it has been mentioned that no stone or Mutrashmari can form without the presence of Kaphadosha, as Kapha forms nidus for Ashmari formation and development.

DIET:-Distribution of the patients according to diet, showed little higher incidence of Mutrashmari in vegetarians i.e. 51.51% followed by non-vegetarians i.e. 48.48%. From this present study, it is not feasible to reach upto inference, as it requires more numbers of patients.

PAIN (Shoola):-Pain was subsided due to vatakgghna property of gokshur, kantakari and eranda and bastishoolahara property of eranda.

Pain is reduces in this trial because the compound property of this gokshuradi yoga is madhurkanashaya rasa, madhurvipak, sheetaviryabastishodhan,shoolaharaand mutravirechaniya which helps to vatashamana.

BURNING MITURATION(SadahaMutrapravrutti):-it was decreased due to sheetavirya of gokshur ,kokilaksha and godugdha.

This study shows that decrease size of mutrashamarireuduses irritation

FREQUENCY OF MITURATION(Mutravega):- it was decreased because of vataghna property of gokshur, kantakari and eranda

SIZE OF MUTRASHMARI:-Mean Stone size is significantly reduced from 4.3 mm to 1.4 mm after treatment this is due to

- Ashmarihara property of gokshur, kokilaksha.
- Katu and tikta rasa of bruhati, kantakari and eranda decreases kapha.
- Bhedana property of gokshur.
- Ushnavirya of bruhati, eranda, kantakari

LOCATION OF MUTRASHMARI:-

- Change in position of mutrashmari due to pishchilguna of kokilaksha and anuloman property of gokshur&eranda

SUMMARY

- 1) Mutrashmari was considered as one of the Mahagadas by Ayurvedic Acharyas. In current surgical practice we are facing many problems to treat and reduce the prevalence of mutrashmari. The current surgical procedures and treatment are very costly. So I was selected this topic for dissertation.
- 2) Review of literature was taken to collect the information about mutrashmari. Its management and related Sharirarachana and kriya according to Ayurveda as well as modern science.
- 3) Gokshuradiyog were manufactured according to the charakchikitsasthan 26/62.
- 4) For this work different Samhita Granthas, Rasa granthas and modern books of surgery and medicine were consulted.
- 5) For additional information the commentaries on samhitas, Published material and previous work on this subject was surveyed. From these materials notes were taken and were used in present work as when and where required.
- 6) The patients were selected on random basis from O.P.D & I.P.D department of hospital attached to our institute and all the selected patients signed a written inform consent.
- 7) Study group patients were given Gokshuradi yoga in the dose of 2 gm twice a day with sahapana and anupana.
- 8) Records were kept during the course of the treatment on 0th, 15th, and on 30th day.
- 9) The findings were converted into various tables and graphs, observation and results were discussed.
- 10) Any side effects or adverse effects were looked for.
- 11) Conclusions were drawn on the basis of observation and results

CONCLUSION**Assessment of primary objective**

1. The clinical trial of Gokshuradi yoga showed significant relief in lakshanas like pain, burning micturition and frequency of urination during / after the treatment period.
2. The mean stone size is significantly reduced from 4.3 mm. to 1.4 mm. after the treatment.
3. The trial drug i.e. Gokshuradi yoga disintegrates the renal calculus and showed mutral (diuretic) action.

So the primary objective is fulfilled from the clinical study.

Assessment of Secondary objective

1. The gokshuradi yoga and its ingredients acts as vataghna in relief of pain, sheetviryatmak results in reduction of burning micturation, and due to vatanigraha property, the frequency of urination also controlled.
2. In the conceptual study of this dissertation, the review of mutrashmari and trial drug i.e. gokshuradi yoga has been attempted. The classical fact about mutrashmari and Gokshuradi Yoga have been rearranged and reoriented to make it more significant and relevant to the present work.
3. I have tried my level best to go into clinical study undertaken to ascertain the efficacy of gokshuradi yoga in mutrashmari. It can be concluded that the gokshuradi yoga is very much beneficial in mutrashmari. Hence the classical observations are proved from the clinical study.

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Research : Clinical

Study Of Mala-karma With Special Reference To Mutra Karma

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ABSTRACT :

The malas are as important to the proper functioning of the body as are doshas and dhatus They are the logical outcome of the dynamics of life which works by pakas of different kind. Waste products are incidental to all kinds of pakas. The production of waste - products is an index of life activities. The living body can never be without them. Certain residual quality of malas is always present in it while, the surplus is utilised by the body or disposed off by elimination.

This renders utmost importance to mutra as a vyadhikaratva (causative factor) and sharir - shuddhikar (purifier) factor. Hence the study of the prakrit karyas of mutra was found to be necessary. Mala and kitta as some such words and their detailed study is important too.

In this study the nature of various malas and their functions in the body with the help of scattered information available in the texts were studied.

The effect of various substance on mutra which are helpful in establishing the mutra-mala functioning according to Ayurvedic siddhant was also studied.

INTRODUCTION :

Ayurved quotes the doshas , dhatus and malas as the foundation of the human body. A healthy (swastha) body requires the equality (samata) of these three entities. Arundatta has cited malas in samyavastha as dhatus and when (vitiated) dooshit dhatus as malas . When dhatus and malas are in their swa-pramanas , then and then alone dose " Samya" exist.

In other words the prakrit pramanas and karyas of the malas are essential for sharir dharan. It was hence felt necessary to study the malas in detail.

Of the malas , purisha is associated with the mahasrotasa , sweda with the meda dhatu , whereas mutra shows an association with all the srotas as of the body. Simultaneously the frequent occurrence and severity of the condition and diseases related to mutra is found to be prominent.

AIMS AND OBJECTIVES

- 1) To define exact meanings of the terminologies like malas, kitta, and those are related to this study.
- 2) To develop parameters to study Mutra-karma.
- 3) To study Mutra Karma as per reference given by Charak for the mala karma in sutrasthan i.

MATERIALS AND METHODOLOGY

According to various samhita's normal function of mutra is kleda vahan. This can be achieved by assessing effect of various kleda-karak substances means those aggravated kleda in the body.

MATERIALS

- :Ayurvedic samhitas
- Modern text and techniques

Inclusion Criteria :

The study consisted of 30 male students as volunteers. belonged to the same socio-economic background ,were from the 18-20 age group.

Exclusion Criteria :

Students suffering from any major illness, specifically related to mootravaha srotas, were excluded.

METHODOLOGY

Data collection process :

l) Before Study :

Roll No :		Name :		
2 Days observation of urine				
Day	Diet	Water Intake	Urine Output Total	No. of voidings
1 st Day				
2 nd Day				

II) After Study :

Roll No.	Name :	Prakriti :	Age :	Examining Factors		
Date	Total water intake	Urine output total	No. of voidings	Effect on sweda	Effect on Mala (Purisha)	Any other information
1 st Day to 7 th Day						

- Proforma of Urine exam & B.P.& temp. 24 hr is circulated amongst the volunteers for mentioning their observations.
- Also at the end the volunteers have undergone a personal interview so that the investigator could ask them to explain their subjective observations.

Mode of trial :

- At first all the 30 volunteers were asked to record the water intake and urine output in normal diet for 2 days. This information was collected from questionnaire given to them.
- The above 30 volunteers were divided into 3 groups.
- During the 7 days of trials the Volunteers were asked to collect early morning midstream urine sample on every alternate day for physical & microscopic investigations.
- The data generated in the above study was analysed by comparing the variation observed in the above examination factors during the study.

OBSERVATION AND ANALYSIS

Total No. of 30 volunteers were selected for the study. Of these 8 (26%) were of Vata Prakriti, 15 (50%) of Pitta and 7 (24%) were of Kapha Prakriti.

Table No. - 1

Distribution of Volunteers

Prakriti of volunteers	No. of(water) volunteers	No. of volunrees	No. of volunteers	Total
	I st Group	II nd Group	III rd Group	
Vata	2	3	3	8 (26%)
Pitta	5	6	4	15 (50%)
Kapha	3	1	3	7 (24%)
Total	10	10	10	30

Table No.-2

Water		Symptoms recorded by Group -1					
lunteers	Increase in urine output	Increase in no. of voiding	Loss of appetite	Softness of stools	Decrease in sweating	Pratishyay Shirogaurav	Naktamutrata
vata	✓	✓	✓		✓		
vata	✓	✓	✓		✓		
ta P ₁	✓	✓			✓	✓	
ta P ₂	✓	✓			✓		
ta P ₃	✓	✓					✓
ta P ₄	✓	✓					
ta P ₅	✓	✓	✓		✓		
pha K ₁	✓	✓	✓	✓			
pha K ₂	✓	✓					✓
pha K ₃	✓	✓				✓	

Table No.-3

Symptoms recorded by Group-2							
nteers	Increase in urine output	Increase in no. of voiding	Loss of appetite	Softness of stools	Increase in Thirst	Increase in sweating	Pratishyay Shirojadya
r-1	✓	✓					
r-2	✓	✓	✓		✓		
r-3		✓					
r-1	✓	✓					
r-2							
r-3	✓	✓			✓		
r-4		✓	✓				
r-5	✓			✓		✓	
r-6	✓			✓			✓
ha-1	✓	✓			✓		

Table No.-4Symptoms recorded by Group-3

<u>Volunteers</u> → ↓	<u>Increase in urine output</u>	<u>Increase in no. of voiding</u>	<u>Increase in thirst</u>	<u>Increase in sweating</u>	<u>Loss of appetite</u>	<u>Udar gauran</u>
Vata-1	✓	✓	✓		✓	
Vata-2			✓	✓		
Vata-3				✓		✓
Pitta-1	✓	✓	✓			
Pitta-2	✓		✓			
Pitta-3	✓					
Pitta-4				✓		✓
Kapha-1	✓	✓				
Kapha-2	✓					
Kapha-3			✓			

Table No. 5 :Average Voidings / Day

	<u>Day / Group</u>	<u>Before Study</u>	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>4th</u>	<u>5th</u>	<u>6th</u>	<u>7th</u>	<u>After Study Average</u>
I	Water	6.00	8.2	8.2	8.1	7.8	7.5	7.4	8.1	8.00
II	Rasala	6.00	6.7	6.8	6.9	7.4	7.1	6.8	6.8	7.00
III	Fish	6.00	5.7	5.8	5.9	6.1	6.3	6.00	5.9	6.00

Table No.6:

Average Urine Output /day (24hrs)

Day / Group	Before Study	1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	Average
Group - 1 st	1.45 lit	2.05	2.06	2.01	2.03	2.1	2.2	2.09	2.1 lit / day
Group - 2 nd	1.58 lit	1.60	1.65	1.82	1.74	1.79	1.89	1.58	1.86 lit / day
Group - 3 rd	1.57 lit	1.51	1.52	1.8	1.7	1.54	1.88	1.55	1.61 lit / day

Statistical Analysis : 't' : Test is applied and significantly positive in 1st & 2nd groups for urine output parameter.

DISCUSSION :**- The effect and action of trial ahariya dravya on volunteers and on mutra**

Water has shita property as of Kleda. Because of this shita property, temp of body slightly reduced and to regulate body temp. excess water content, i.e. moisture or Kleda, thrown out of the body through urine, causing increase in urine output. Reduction in sweating was also observed because of this.

- Effect And Action of Rasala on volunteers :

Increase in urine output in volunteers in this group has been observed because of snigha, shita, guru properties as like kleda of the Rasala. Though water intake was normal increased urine output suggestive of removal of excess of Kleda from the body through urine. Due to Guru snigdha guna the symptom loss of appetite was observed. Shita property creates symptom Pratishyay and shirogaurav

Effects And Action of : Fish : (Non-veg.)

In this group 2 factors are involved for increase in urine output in 60% of volunteers. Due to increase in guru - snigdha properties kleda was increased.

Secondly due to ushna guna increase in trushna was observed it might have increased water intake which leads to increase in urine output.

While number of voidings remained same.

The average p^H which was 6.2 decreased upto 6.00 towards more acidic nature because of high intake of non-veg diet. Symptom loss of appetite and udar gaurav was observed because of guru, snighdha property of fish.

CONCLUSION

- ❖ a) The word mala is used for kitta as per charak *sutra 28/4*
- b) The word kitta is used as Dhatu mala in shabda stoma mahanidhi.
- ❖ Mutrasya kleda vahan karya is observed after giving the kleda kara ahariya dravya with the following findings :
 - a) Increase in urine output & no. of voidings in all groups
 - b) Increase in B.P. but within physiological limits in group 1
 - c) Decrease in P^H of urine in group 3 and increased in group 1
- ❖ By studying the findings it is concluded malas in swapraman are responsible for maintaining the body equilibrium.

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Research : Clinical

Study Of Kostha Parikshan In Dwandwaj Prakruti

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ABSTRACT :

The objective of present study was study of kosthaparikshan in dwandwajprakruti.. According to AyurvedSamhitas references regarding prakruti and kostha were studied. Prakruti of the volunteers was done with the help special PrakrutiParikshanProforma. At the same time kostha,snehankala,snehanmatra,virechankala,virechanmatra,virechanvegas were also studied.

INTRODUCTION :

Ayurved is an applied science which deals with every aspect of human life. Basic principals of Ayurveda mainly concern with sharirkriya,gives knowledge about dosha, dhatu and mala. There are different types of prakruti e.g. doshaj, manasetc. For studying predominance of dosha in the individual, study of prakruti is very important and useful.

By the union of shukra (sperm) and shonita(ovum), the foetus is formed. At the time of conception the doshas which are in dominance state are responsible for prakruti of the respective foetus and at the same time the hereditary factors are transferred by shurka and shonita in that foetus. This prakruti of the foetus remains same till death.

According to Charakvimanasthan, chapter 8th sutra 95, doshaj prakruti is distributed into EK doshaj, Dwandwaj, and Sannipatik. So this topic was undertaken for study.

AIM AND OBJECTIVES :

AIM :

Study of kosthaparikshan in dwandwaj Prakruti.

OBJECTIVES :

The concept of sharirprakruti and kostha from Ayurvedic Samhitas were studied in detail and the references were compiled.

MATERIALS & METHODS

MATERIALS :

- Ayurvedic Samhitas.
- Modern text & techniques.

- Prakrutiparikshanproforma.
- kosthaparikshanproforma.

INCLUSION CRITERIA :

- Study contains 30 volunteers divided into following 6 groups.
5 volunteers Vata - Pittaj, 5 volunteers - Vata Kaphaj, 5 volunteers Pitta Kaphaj, 5 volunteers Pitta-Vataj, 5 volunteers Kapha-Pittaj, 5volunteers Kapha-Vatajprakruti.

EXCLUSION CRITERIA :

- Volunteers suffering from any major illness.

METHODOLOGY :

- 30volunteers between the age group of 18-24yrs were selected for the study.
- Sharirprakrutiparikshan was done with the help of Prakrutiparikshanproforma.
- Kosthaparikshan of each volunteer was carried out with the help of proforma ..
- To avoid bias same time ,place,equipment and pattern was maintained.
- Statistical analysis was done with the help of collected data.

OBSERVATION :**IN VATA PITTAJ PRAKRUTI**

Subject no.	Snehanparikshan(Ghee60ml in days)	Virechanparikshan (Milk 200ml in vegas)	Kostha
1	07	No effect(Irregular)	Krura
2	05	4-5 times	Mrudu
3	03	No effect	Madhyam
4	03	No effect	Madhyam
5	07	No effect (Irregular)	Krura

IN VATA_KAPHAJ PRAKRUTI

Subject no	Snehanparikshan(Ghee60ml in days)	Virechanparikshan (Milk 200ml in vegas)	Kostha
1	07	No effect(Irregular)	Krura
2	07	No effect(Irregular)	Krura
3	03	No effect	Madhyam
4	07	No effect(Irregular)	Krura
5	05	4-5 times	Mrudu

IN PITTA KAPHAJ PRAKRUTI

Subject no	Snehanparikshan (Ghee60ml in days)	Virechanparikshan (Milk 200ml in vegas)	Kostha
1	05	4-5 times	Mrudu
2	05	4-5 times	Mrudu
3	05	4-5 times	Mrudu
4	03	No effect	Madhyam
5	03	No effect	Madhyam

IN PITTA_VATAJ PRAKRUTI

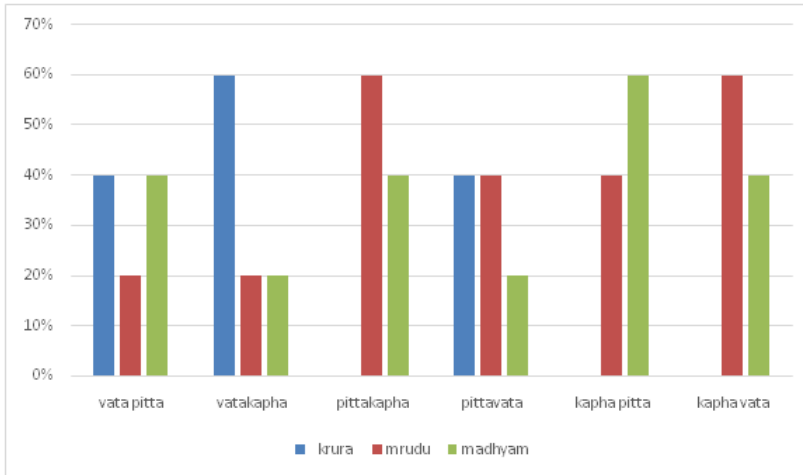
Subject no	Snehanparikshan (Ghee60ml in days)	Virechanparikshan (Milk 200ml in vegas)	Kostha
1	05	4-5 times	Mrudu
2	07	No effect(Irregular)	Krura
3	05	4-5 times	Mrudu
4	07	No effect(Irregular)	Krura
5	03	No effect	Madhyam

IN KAPHA PITTAJ PRAKRUTI

Subject no	Snehanparikshan (Ghee60ml in days)	Virechanparikshan (Milk 200ml in vegas)	Kostha
1	03	No effect	Madhyam
2	03	No effect	Madhyam
3	05	4-5 times	Mrudu
4	05	4-5 times	Mrudu
5	03	No effect	Madhyam

IN KAPHA VATAJ PRAKRUTI

Subject no	Snehanparikshan (Ghee60ml in days)	Virechanparikshan (Milk 200ml in vegas)	Kostha
1	05	4-5 times	Mrudu
2	05	4-5 times	Mrudu
3	05	4-5 times	Mrudu
4	03	No effect	Madhyam
5	03	No effect	Madhyam

STATISTICAL ANALYSIS :**CONCLUSION :**

- o In volunteers of Madhyamkoshtha 200ml milk given In Pitta Kaphaj, KaphaPittaj&KaphaVattajPrakruti percentage of KruraKoshta is 0%.
- o In volunteers of Krurakoshtha 200ml milk given in ratrikala as virechandravaya which leads No effect on motion.
- o In volunteers of Mrudukoshtha 200ml milk given in ratrikala as virechandravaya which leads 4-5 times vegas on motion.

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Clinical :

Study The Aetiopathogenesis Of Agnimandya In Geriatrics

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ABSTRACT :

In ancient time Ayurved was described in eight branches, among them Jarais one of the main branch, but with the passage of time it is not much developed in Ayurved as developed in modern science, so there is need to study this aspect in Ayurved.

In Ayurved only brief description about 'JaraVyadhi's' are found, so there is need to explore it but as we know that it is very vast topic for study purpose and requires a long time duration for the study of all 'JaraVyadhi's'. In this study Aharajahetu, ViharajHetu&ManasHetu were mainly included.

The case study was based on various criterion like age, sex, occupation, Prakruti, types and different types of junk foods as a Hetu were included in this study. According to observation Srotodushti, Dhatodushti, DoshaParkop&changes in the Mala were interpreted through the Lakshanas that patient had told in the VedanaVishesh. The observations has been elaborated and discussion were made. According to HetuSamprapti of Agnimandya were interpreted in geriatrics.

Key words : Agnimandya, Geriatrics, Jara.

INTRODUCTION :

Ayurved propounds a highly evolved science of life, health and care where concept of ageing and rejuvenation find a prominent place. Ageing is a natural process of being called as Vruddha, Vardhakya etc. denotes of physical psychological maturity.

When Agni of the body is in equilibrium state it helps to keep Ayu, Varna, Bal, Swastha, Utsaha, Prabha, Oja, Tej, Agni andPrana all in balanced condition.

Agnimandya is a main cause of all the diseases, it is also mentioned as a SwantantraVyadhiin text MadhavNidana. There are 13 types of Agni, out of which there are 7 types of Dhatvgniand 5 types of Bhutagni that are mentioned in our text. Jatharagni plays an important role in our body, it helps in the digestion of food. Mandagni, Tikshnagni, Vishamagniare the type of Agnidushti according to dominance of Dosha. Present study is mainly focusing on Mandagni in 'Jaraavastha'.

Abhojan, Ajirna, Atibhojana, Vishamashana, Asatmyabhojan, Guru, Sheet, Atiruksh, SandushtBhojana, Virechan, Vaman, SnehVibhram, VyadhiKarshan, Desh, Kal, RituVishamata, Vegadharanaare theHetusforAgnimandya.

Ayurved used words such as Vriddha, Vardhakya, Jara etc. to denote the senescence i.e ageing. Jara understood as a Pakai.e conversional process. In modern times there is special branch for the study of geriatric disorders i.e called gerontology but in Ayurved this branch is not much focused. Fundamental concept of Ayurveda define bio-availability and substances of toxic free tissues building and maintenance by bio-fire throughout the life span and ultimately a voluntary termination of biological needs, thus anywhere in Ayurved death is not defined but casually designated it and inevitability transpires of life.Lakshana of Jara described in Samhitaare diminishing of Medha, Twak, Drushti, Shukra, Vikrama and Buddhi. In Ayurved no specific Vyadhi are described as JaraJanyaVyadhi. In routine practise many diseases of digestive disorders are observed in the old patients, so it is humble effort to study & explain it in the Ayurvedic perspective.

Different Acharya has described different criteria of age limit of Jara. Acharya Charka said that 60 years is the beginning of old age.(Ch/Vi 8/122). AcharyaSushrut said that ageing begins at the age of 70 years.(Sushrut/Su 35/36). It's very difficult to decide that which criteria is better So,by assuming that both criteria are right,we will take the patient above the age of 60 years.

NEED OF STUDY :

Study of effect of aetiological factor of Agnimandya in ageing according to Ayurved.In ancient time Ayurved was described in eight branches, among them Jara is one of the main branch, but with the passage of time it is not much developed in Ayurved as developed in modern science, so there is need to study this aspect in Ayurved. No previous work has been done until today regarding aetiopathogenesis of Agnimandya in geriatrics so it is my humble effort to study this topic.

AIM :

Study the aetiopathogenesis of Agnimandya in Geriatrics.

OBJECTIVE :

- Study of 'Hetu' of 'Agnimandya' in 'geriatrics'.
- Study of 'Samprapti' of 'Agnimandya'in 'geriatrics'.
- To interpret the 'HetuandSamprapti' of 'Agnimandya'in'geriatrics'.
- To study the effect of AgnimandyaonDosha, Dhatu and Mala.

MATERIALS :

- 1) Review of 'Jara&Agnimandya' in all samhitas.
- 2) Literature such as various research papers, journals and different text of modern sciencehad

been referred.

3) 100 numbers of patients had been taken for my research study.

METHODOLOGY :

Clinical and survey type of study. Separate case paper Performa and questionnaires had been prepared as per need, Place of work: BharatiVidyapeeth Medical Foundation's Ayurved Hospital Pune-43.

OBSERVATIONS& RESULT :

Division of volunteers according to age group :

Age	No. of volunteers	Percentage
60-70	47	47%
70-80	33	33%
80-90	11	11%
90-100	8	8%
100-110	1	1%

Maximum no. of volunteers belong to 60-70 age group i.e 47% followed by 70-80 age group i.e 33%.

Division according to Diet :

Diet	No. of Volunteers	Percentage
Vegeterian	43	43%
Non-vegeterian	57	57%

Maximum numbers of volunteers were found to have non vegetarian diet i.e 57%.

Division according to AharajHetu in Agnimandya:

Hetu	No. of Volunteers	Percentage
Akalabhajan	86	86%
Atirukshbhajan	82	82%
Gurubhajan	81	81%
Adhyashan	79	79%
Atishitbhajan	72	72%
Vishamashan	65	65%
Asatmybhajan	62	62%

Sandushtabhojan	62	62%
Abhojan	3	3%

Maximum number of patient were found to have Akalabhojan&Atirukshabhojan i.e. 86% followed by Atirukshabhojani.e 82%.

Division according to Rasa asHetuin Agnimandya :

Rasa	No. of volunteers	Percentage
Madhura	25	25%
Amla	4	4%
Lavan	18	18%
Katu	33	33%
Tikta	2	2%
Kashaya	18	18%

Maximum number of volunteers were had Katu Rasa &Madhur rasa in a Bhojanie. 33% & 25% followed by Kashaya rasai.e 18%.

Division according to ViharajHetuinAgnimandya :

Hetu	No. of Volunteers	Percentage
Diwaswap	39	39%
Ratrijagaran	45	45%
Ativyayam	9	9%
Atishram	7	7%

Maximum number of patient were found to have Ratrijagaran as a ViharajHetuie. 45% followed by Diwaswapi.e 39%.

Division according to ManasHetuinAgnimandya :

Hetu	No. of Volunteers	Percentage
Krodha	9	9%
Shoka	28	28%
Chinta	38	38%
Bhaya	8	8%
Lobha	12	12%
Irshya	5	5%

Maximum number of patient were found to have Chintai.e. 38% followed by Shoka i.e. 28 %

Division according to Dosha Prakopa in Agnimandya :

Doshas	No. of Volunteers	Percentage
Vata- Kapha	48	48%
Kapha-Vata	27	27%
Vata-Pitta	12	12%
Kapha-Pitta	4	4%
Tridosh	9	9%

Maximum number of patient were having Vata-Kapha Dosha Prakopa with 48% followed by Kapha-Vata i.e. 27%.

Division according to Dhatu Dushti :

Dhatu	No. of volunteers	Percentage
Rasa	100	100%
Mansa	8	8%
Meda	3	3%

Rasa Dhatu Dushti were found in 100% of volunteers followed by Mansa & Meda Dhatu i.e. 8% & 3%.

Division according to Srotodushti in Agnimandya :

Vikrut Srotas	No. of Volunteers	Percentage
Annavaha	100	100%
Rasavaha	100	100%
Purishavaha	60	60%
Udakavaha	46	46%
Swedavaha	33	33%
Mutravaha	1	1%

Maximum number of patient were found to have Annavaaha & Rasavaha Srotodushti i.e. 100% followed by Purishvaha i.e. 60%.

Division according to Lakshana :

Lakshana	No. of volunteers	Percentage
Udarshool	92	92%
Udargaurava	90	90%
Aruchi	89	89%
Hrullasa	76	76%
Chhardi	72	72%
Amalpitta	68	68%
Jwara	63	63%
Daurbalya	53	53%
Malabaddhata	31	31%
Dravamalapravrutti	28	28%
Mutravikruti	37	37%
Swedatipravrutti	1	1%

Maximum number of volunteers had Udarshoola as a main Lakshanai.e 92% followed by Udaragaurvai.e 90%.

Division according to Abhyavaran&Jaran Shakti :

Ahar Shakti	No.of Volunteers	Percentage
	VIKRUT	
Abhyavaran Shakti	100	100%
Jaran Shakti	100	100%

100% volunteers were found to have a VikrutJaran&Abhyavarn Shakti.

Division according to JiwhaPariksha :

Jiwha	No. of Volunteers	Percentage
Sama	100	100%

All volunteers were found to have SamaJiwha i.e. 100%.

Division according to Vikruta Mala Pariksha :

Mala	No. of volunteers vikrut	Percentage
Varna	54	54%
Gandha	54	54%

According to Mala Pravrutti

Dravmalapravrutti	28	28%
Malabaddhata	31	31%

Maximum numbers of patient Malawere found Vaikrut Varna & Gandha i.e. 54%.

Division according to Sama&NiramaMala :

Mala	No. of volunteers	Percentage
Sama	62	62%
Nirama	38	38%

Maximum volunteers had a Sama Malai.e 62%.

DISCUSSION :

According to observations 47% of volunteers belongs to age group between 60-70 followed by the age group 70-80 i.e. 33% because between 60-70 age group people were working due to which their sedentary life style & different eating habits leads to Agnimandya. 57% volunteers were consuming non- vegetarian diet. As it is a Guru, Snigdha Gunatmak Ahar & it is very difficult to digest such a heavy Ahar in the old age which leads to Agnimandya. Volunteers were observed to have Agnimandya, along with 33% Katu, 25% Madhur & Rasatmak Aharas a major Hetu, as above mention Rasa are Vata and Kapha Prakopaka .

As a Aharaj Hetu 86% volunteers had Akalabhojan, 82% Atirukshabhojan & 81% Gurubhojan that causes Manda Agni which leads to Aamnirmiti that reflects in Saam Jivha in all the volunteers. Sedentary lifestyle, wrong habits of Aharsevani. e Akala & Sandushta Bhojan leads to Annavaha, Purishavaha & Rasavaha Srotas Dushti. 45% Ratri jagran & 39% Diwaswapaas a major Viharaj Hetu was found, causing Vata & Kapha Prakopaka . In 38% of volunteers Chinta as Manas Hetu causes Rasavaha Srotas Dusti which are one of the causes of Agnimandya. In Maximum no. of volunteers vitiation of Vata , Kapha & Manda Agni was found that causes Vikrut Jaranshakti due to which food cannot be digested which leads to Ama Nirmiti. In 100% of volunteers Rasa Dhatu Dushti was found. As Rasa is a primary Dhatu in the process of digestion. Due to vitiation of Vata Dosha leads to Malabaddhata, Udarashool & Dravamalapravrutti.

In the interpretation of Hetus with Samprapti it has been found that Vataj & Kaphaj Hetu such as Akala Bhojan, Adhyashan, Guru & Atiruksh Bhojan, along with Katu, Madhura & Kashaya Rasa causes Agnimandya which reflect through the Lakshana's Udarashoola, Udargaurava,

Aruchi, Hrullasa, Sama Mala & Sama Jivha. Because of the Aam Nirmiti patient were observed to have Lakshanas like, Udarshoola 92%, Udargaurvata 90% & Aruchi 89% along with Agnimandya. Sama Mala was observed in 62% of the patients in Mala Pariksha due to which Mala Vega and Varna were found to be Vaikrutas in old age due to Vaikrut Jaranshakti. Ahar digestion is not proper and which causes Vaikrut Mala.

CONCLUSION :

Sedentary lifestyle & 60-70 age group volunteers were more prone to Agnimandya. Akala & Guru Bhojan are the leading causes of Agnimandya amongst Aharaj Hetu. Chinta & Shoka were the leading causes for Agnimandya amongst the Manas Hetus, while Ratrijagranas a Viharaj Hetu.

Consumption of Katu, Madhur & Kashaya Rasawas the leading cause of Agnimandya. Vataj type of Agnimandya was predominantly found. Vata & Kapha Dosha and Rasa Dhatu Dusti were predominant in most of the patients.

ACKNOWLEDGEMENT :

Thankful to my guide & Head of the department Dr. A.B. More as well as to my co-guide Dr. P.L. Dand.

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Clinical :

Study Of Probable Anatomical Structure Concerned With Swadhishtan Chakra

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ABSTRACT :

Nowadays, due to lack of Vyayam (Exercise) and Junk food (Eating habits), and continuous busy schedule the female suffer from lot of diseases related to Menstrual problem. So there is increased in incidence of the disease in female. It suggests that female sex hormones have a protective influence against reproductive diseases and stress. These Asana and Bandha help to relax the fatigue of muscles, correction of organ. During the past few decades different Asana and mudra have been used in the treatment of certain diseases.

Out of Shatchakra, Swadhishtan chakra is selected for study and related diseases in Female. So detailed study about Rachana (Anatomy) related to Swadhistan Chakra and the effect of Paschimottanasana, Bhujangasana and Moolabandha on Swadhisthanchakra was carried out.

Methods :

Present study was observational study where 30 patients diagnosed as Dysmenorrhea was taken from B.V.D.U.C.O.A. hospital randomly. The patients were subjected for screening of the symptoms & clinical examination. Then data obtained was analyzed. A study of effect of Paschimottanasana, Bhujangasana and Moolbandha to Swadhishthanchakra was seen.

Assessment criteria :

- 1) Menstrual history was taken.
- 2) Total sample size of 30 Patient of Dysmenorrea was taken from B.V.D.U. C.O.A. Hospital Pune.
- 3) Severity of Dysmenorrhea was calculated on the basis of Symptoms.
- 4) Paschimottasana, Bhujangasana and Moolabandha were taught under the Yoga expert.
- 5) Regular follow up was taken for 15 days up to 6 month.
- 6) Ultrasonography was done before & after the study and Reduction in the Symptoms will be analysed.
- 7) Subjective assessment of pain was visualised.

Conclusion :

Paschimottasana, Bhujangasana and Moolabandha are helpful in Dysmenorrhoea. It is related with the Hypogastric plexus. This Hypogastric plexus is related with Swadhishtana chakra.

Keywords :

Swadhishtana chakra, Hypogastric plexus, Dysmenorrhoea, Paschimottasana, Bhujangasana, Moolabandha.

(Total no. of Reference: 9)

INTRODUCTION :

Sharir is divided into SthoolaSharir and SukshmaSharir. The SthoolaSharir can be studied with the help of Gyanendriyas by PratyakshaPramanawhereas the SukshmaSharir cannot be studied with the naked eyes it can be seen by Gyana-chakshu or Tapa-chakshu¹The pervading and subtlest consciousness in the body can't be perceived by eyes as it is experienced only with the eyes of Knowledge and penance.²

Shatchakra comes under sukshmaSharir. Swadhishtana Chakra is one of them. It is situated two Angula above Mooladhara chakra. It is located between umbilicus and the genital organs & related with Hypogastric plexus. It is under control of ApanVayu. Reproduction activity is completed by the place of this Chakra and it belongs with Moon directly. In female menses are related with Moon and these works are controlled by Swadhishtana Chakra.

Table no. 1 Description of Shat chakra³

SHAT-CHAKRA	LOCATION	RELATED GLAND	CONTROLS	NEURAL PLEXUS
Mooladhara	In between anus and genitals	Adrenal glands	Sex organs and organs of excretion	Sacrococcygeal plexus
Swadhishtana	Above the genitals	Adrenal glands	Function of genital organs	Hypogastric
Manipura Chakra	Navel region	Pancreas	Digestive organs	Coeliac
Anahata	Center of heart	Thymus	Heartbeat	Cardiac
Vishuddha	Neck region	Thyroid	Speech and arms	Cervical
Ajna	Between eye brows	Pituitary	Entire body	Cavernous
Sahasrara	Top of the brain	Pineal	Entire body	Cerebral cortex

Swadhishtana chakra related to Hypogastric Plexus :

Hypogastric plexus⁴ is situated in front of the last lumbar vertebra and the promontory of the

sacrum between the two common iliac arteries and is formed by the union of numerous filament, which descend on either side from the Aortic plexus and from the Lumber ganglia.

Hypo gastric plexus divide into two parts.

- 1) **Superior Hypo gastric Plexus** : Supplies fibers to the inferior mesenteric plexus and to the ureteric, testicular or ovarian and common iliac plexuses.
- 2) **Inferior Hypo gastric Plexus** : It is directly related to the internal iliac vessels and the attachment of levatorani, coccygeus and obturatorinternus which lie laterally and the superior vesicle and obliterated umbilical arteries superiorly.

In female each plexus lies lateral to the uterine, cervix, vaginal fornix and the posterior part of the urinary bladder, and often extends into the broad ligaments of the uterus.

Bhujangasana :



Let the body from the navel downward to the toes, touch the head on the ground, place the palms by the side of the body and raise the head like a cobra⁵.

Benefits :

1. Tone the abdomen.
2. Improve blood circulation and Oxygen, especially through the spinal and pelvic region.
3. Reduce fatigue and stress.
4. Decrease menstrual irregularities.
5. Decrease stiffness of the lower back pain.
6. Relieves back pain and promotes the flexibility of spine.
7. Exercises the vertebrae while stretching them.
8. In full posture it also contracts and relaxes the back muscles.

Paschimottanasana :

This Paschimottanasana carries the air (samanvayu) front of the back part of the body. It increases gastric fire (Pachakagnia), reduces obesity and cure all diseases⁶.

Benefits:

1. It acts as a stress reliever.
2. Reduce fatty deposits in the abdomen.
3. Remove anxiety, anger and irritability.
4. Stretches the spine and bring flexibility.
5. Good for constipation and digestive disorder.
6. Regular practice cure impotency and enhance the sexual power.
7. Increase abdominal pelvic organs tones.
8. Balance the Menstrual cycle.
9. This asana is recommended especially for women after delivery.

Moolbandha :

The Apan, naturally inclining downward is made to go up by force. This Moolabandha is done by contracting the Anus.

Benefits :

1. It helps to maintain celibacy or *Brahmacharya* by sublimating the sexual energy, transferring it to the higher chakras.
2. It tones the urogenital and excretory systems as well as the intestinal peristalsis.
3. On a spiritual level there the re alignment of the physical, mental and psychic bodies take place. It also helps to relieve frustration and depression.

Muscle Physiology⁷:

The muscular system is the biological system of humans that produces movement. The muscular system in vertebrates is controlled through the nervous system. Muscle is contractile tissue and is derived from the mesodermal layer of embryonic germ cells. Its function is to produce force and cause motion, either locomotion or movement within internal organs. Some muscles (skeletal muscles) will not contract unless stimulated by neurons; other muscles (smooth & cardiac) will contract without nervous stimulation but their contraction can be influenced by the nervous system.

AIM :

To Confirm the Anatomical Structures Related with Swadhishtan chakra.

OBJECTIVE :

- Literary study of Swadhishtan Chakra in detail.
- To Confirm the structures involved in the Swadhishtan Chakra.
- To see the effect of Pashimottanasana, Bhujangasana and Moolbandain Dysmenorrhea.

MATERIALS AND METHODS:

Present study was observational study where 30 patients diagnosed as Dysmenorrhea was taken from B.V.D.U.C.O.A.'s hospital randomly. The patients were subjected for screening of the symptoms & clinical examination. Then data obtained was analyzed.

A study of effect of Paschimottanasana, Bhujangasana and Moolbandh to Swadhishtan Chakra was seen.

Criteria for selection of patient:

Inclusion : Random selection of female patient of reproductive age suffering with Menstrual Problem. Age between 15 to 35 years.

Exclusion : Pregnant Female, Female undergone hysterectomy. Female having other chronic disease. Age of patients less than 15yrs and greater than 35yrs.

Parameters :

Rome criteria was applied for assessment of Dysmenorrhea⁸ Syndrome.

- 1) Abdomen pain and radiate back pain.
- 2) Medial aspect of Thigh pain.
- 3) Nausea, Vomiting, Fatigue and Headache.
- 4) Pallor, Cold, Sweats and Fainting.

Table no. 2 - These symptoms mainly occur in Dysmenorrhea gradation of these symptoms is given according to their severity.

a	No above Symptoms	Grade 0
b	Some time, rarely symptoms	Grade 1
c	Intermittent symptoms	Grade 2
d	Continuous symptoms	Grade 3

Follow up :

- Assessment after 15 days up to 6 month.
- Symptoms recorded before and after treatment.

OBSERVATION AND RESULTS:

- Total 30 Patients were enrolled for the study, in age group 15- 35 yrs. Complete Data of 30 Patients is analysed.
- Data filled by Patient Before treatment according to gradation out of 30 patient.
- Data Filled by Patients after Treatment according to gradation.
- Decreases of pain and regular menses without pain started.

Table no. 3 - Abdomen pain and radiate back pain :

Total 30 case	Grade 0	Grade 1	Grade 2	Grade 3
Before treatment	-	-	21	9
After treatment	10	14	6	-

Chart no. 1 - Abdomen pain and radiate back pain :

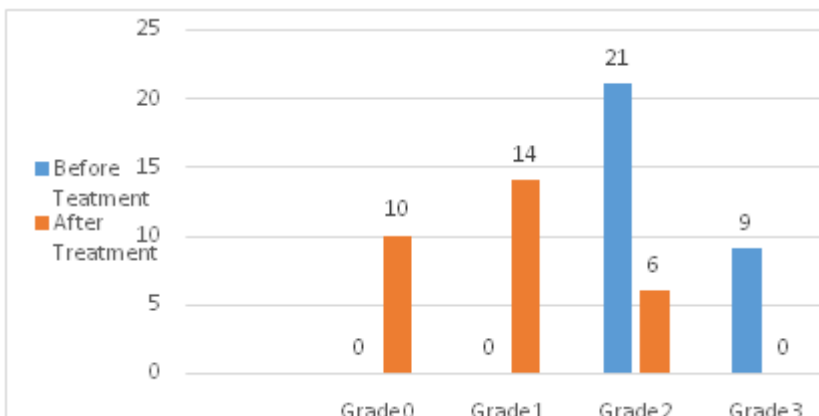


Table no. 4 - Medial aspect of Thigh pain :

Total 30 case	Grade 0	Grade 1	Grade 2	Grade 3
Before treatment	-	10	12	8
After treatment	8	14	8	-

Chart no. 2 - Medial aspect of Thigh pain :

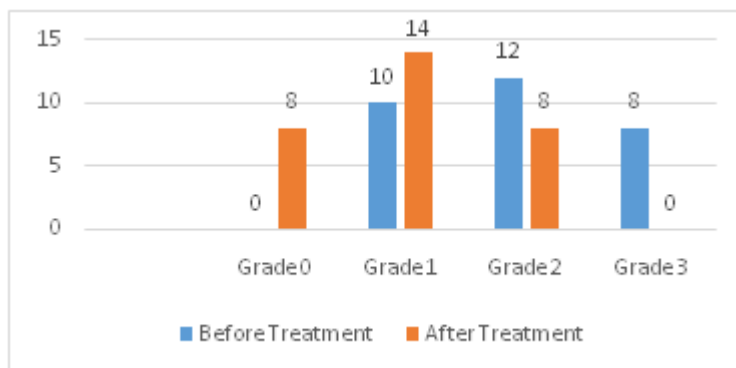


Table no. 5 - Nausea, Vomiting, Fatigue and Headache:

Total 30 case	Grade 0	Grade 1	Grade 2	Grade 3
Before treatment	-	8	14	8
After treatment	8	16	6	-

Chart no.3 - Nausea, Vomiting, Fatigue and Headache :

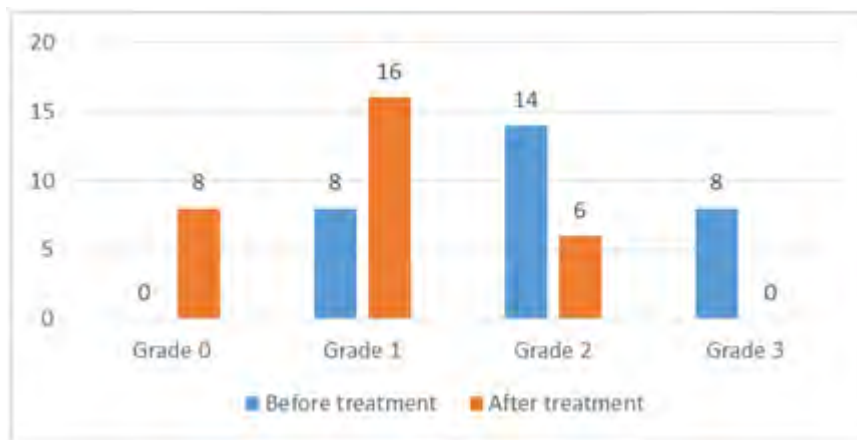
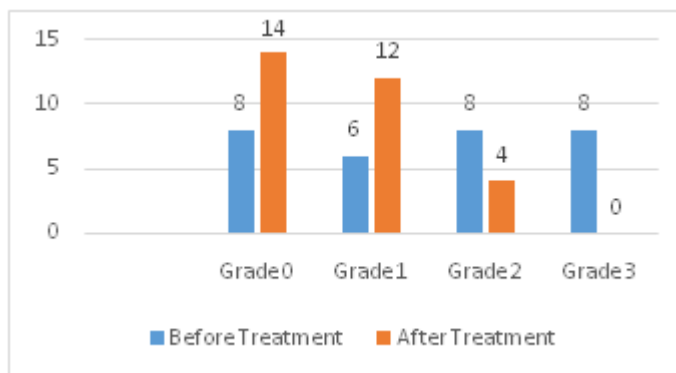


Table no. 6- Pallor, Cold, Sweats and Fainting:

Total 30 case	Grade 0	Grade 1	Grade 2	Grade 3
Before treatment	8	6	8	8
After treatment	14	12	4	-

Chart no.4 - Pallor, Cold, Sweats and Fainting :

**DISCUSSION :**

The symptoms like Abdominal pain and radiate back pain, medial aspect of thigh pain, nausea, vomiting, fatigue and headache, pallor, cold sweats and fainting etc. lead to the disease dysmenorrhea. In dysmenorrhea syndrome Paschimottanasana, Bhujanagasana and Moolabandhadecrease the dysmenorrhea symptoms. The pain and stiffness of muscles decrease in the range of movement at the spine due to prescribe asana.

The gentle stretching of muscles releases muscle tension and increases flexibility thus helps in removal of stiffness. There was no any complication during treatment.

It shows that Swadhishthana chakra situated in genital region is associated with hypogastric plexus, endocrine gland & related organ.

The study shows that after Paschimottanasana, Bhujangasana and Moolabandha related to sthan of Swadhishthan chakra i.e (genital region) reduces the dysmenorrhea symptoms.

CONCLUSION :

- Shat Chakra are related to sympathetic & parasympathetic nervous system. It seems Shat chakra are situated at site of nerve plexus, by stimulating plexus one can stimulate chakra system.
- All these Asana are helpful in dysmenorrhea.
- It is related with the Hypogastric plexus.

ACKNOWLEDGMENT :

I have deepest sense of gratitude to my research guide, **Dr. (Mrs.) P.B.Kamble**, madam Professor & Head Department of RachanaSharir BVDU, COA, Pune-43 for whose time to time incessant encouragement, support. This dissertation would not have possible without the guidance of her. I would like to thank my Department, my parents, sibling and friends for supporting me.

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Clinical :

"Study The Effect Of Triphaladi Yog In The Management Of Pandu"

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ABSTRACT

Anemia is one of the most commonest disease occurring in most of developing Countries. Malnutrition, illiteracy, poverty are the most reasons for this health problem. In Ayurveda , It is described in terms of PANDU,characterised by pallor skin,conjunctiva,nails ,anorexia etc.

Single blind placebo controlled randomized study was conducted.60 clinically diagnosed patients of Pandu with an object of clinical evaluation of the efficacy of Triphaladi Yog in management of Pandu with Bajra flour as Placebo was studied.. Both groups were given proper dietary advice. Trial drug i.e, Triphaladi Yog was given orally in 1gm dose after lunch and dinner for period of 3 months.The trail drug was found effective in increasing blood haemoglobin level.

No adverse effect were noted in any of the patients during the study period.

Total no. of References : (8)

Key Words : Pandu , Anemia , Triphaladi Yog , Bajra Flour Vati, Hb%

INTRODUCTION

Ayurveda is the most ancient yet most proven scientific medical science. Ayurveda has described ideal daily lifestyle for mankind such as Dinacharya, Rutucharya etc.,to maintain good health and cure disease. One of the most commonly occurring disease is PANDU. Our ancient Acharyas have described PANDU in detail with crystal clear idea, with respect to it's Nidan , Samprapti and Chikitsa.

Rakta has been considered as a key factor for the Jeevana,Prinana,Ddharana and Poshana karma of the body¹.It is seen that Rakta gets Vitiated by Doshas,mainly by Pitta dosha as Rakta is Pittavargiya and disease like Pandu appears.Pandu is Pitta Pradhana Vyadhi².Due to Hetu sevana ,Pitta pradhan doshas gets Vitiated and is circulated in the whole body causing Shithilata in all Dhatuswhich ultimately reduces Rakta and Meda Dhatu.Decrease in sneha and Rakta Dhatu, Rupa, Oja, Guna, Verna, Bala are lost and thus there is Pandu Roga².

In Modern Science pallor is primarily accounted as decreased level of Haemoglobin percent, which is defined as Anemia. According to WHO, it is estimated that prevalence of nutritional Anemia in India is 76% in preschool children, 50% in school children, 15-20% in Men & 50-80% in Women,

70-90% in Pregnant Women³. Prevalence of Anemia is high because of low dietary intake, poor availability of Iron, chronic blood loss due to hook worm infestation & Malaria⁴. But in Ayurveda discoloration of skin is PANDU but many other symptoms and types of PANDU are described in detail by Acharyas along with specific treatment of each type. As the name denotes the main feature of Pandu Roga is Pandutva⁵. The signs and symptoms of Pandu Roga includes Hrid Dravata, Agnimandya, Tandra, Bhrama, Shrama⁶. Triphaladi Yog is Described by Charak in Chikitsa sthana in Panduroga Chikitsa Adhaya⁷. Same Kalpa is Described in Bhaishajya Ratnawali as Nishaloham⁸.

Aims and Objectives

To study the clinical efficacy of Triphaladi yoga in the management of Pandu.

To study and compile the literature on Pandu and Triphaladi Yoga.

To compare the effect of Triphaladi yoga & Bajara flour vati.

To illustrate the mode of action of drug.

To study present result by appropriate statistical method.

MATERIALS AND METHODS

Drug review

Triphaladi yoga – Charak Chikitsa 16/11.

Ingredients : Ingredients of TRIPHALADI YOGA are Amalaki, Haritaki, Bibhitaka, Daruharidra, Haridara, Kutaki, Lohabhasma.

LITERARY REVIEW

The references of Pandu from Brihatrayi, Laghutrayi and Vedas are studied and compiled.

CLINICAL STUDY

This was a single blind placebo controlled randomized study. Patients were selected irrespective of sex, religion, occupation, etc. The study was conducted for 3 months and follow up was taken after 15 days, 30th day, 60th day 90th day from OPD of our institute.

Group of 60 patients were divided into two groups of 30 patients each.

Group A treated with Triphaladi Yog.

Group B was treated with Bajara flour.

Pathyapathy was advised to both groups.

STUDY DESIGN

Single blind, placebo controlled randomized study was done. TRIPHALADI YOGA was used in study group along with Ghruta & Honey [in vishambhag]

PLACE OF STUDY

All the patients having signs and symptoms of PANDU were selected and enrolled in the study from the kayachikitsa OPD and IPD of our Hospital.

DRUG AND ROUTE OF ADMINISTRATION

Drug	Group –A	Group- B
Rout of administration	Oral	Oral
Dose	1 gm	1 gm
Bheshaj kala	Vyan udan (after Lunch & Dinner)	vyan- Udan (after Luch & Dinner)
Duration	3 month	3 month
follow up	15 th 30 th , 60 th , 90 th	15 th 30 th 60 th 90 th
Anupan	Gruta + Honey (Visham Bhag)	Gruta + Honey (Visham Bhag)

SUBJECTIVE CRITERIA

Panduta	Agnimandya
Akshikustshath	Pindikodvesnton
Gatrasadan	Bhram
Dorbalya	Shawaskruchata
Hridspandan	Aruchi
Vaivarnya	

OBJECTIVE CRITERIA

CBC

INCLUSION CRITERIA

Patient having vataja, pittaja, kaphaja, mrudbhshanjaya type of Pandu.

Patient having textual signs and symptoms of Pandu.

EXCLUSION CRITERIA

Sanipatik Pandu

Patient having Hb% below 6 gm

Patient having any other major illness and /or patient with emergency.

Other blood discrasias.

CRITERIA OF ASSESSMENT

	Before treatment	After treatment
Signs/ symptoms	1 st day	90 th day
Agnimandya	0 - no agnimandya 1 - mild agnimandya 2 - moderate agnimandya 3 - severe	0 - no agnimandya 1 - mild agnimandya 2 - moderate agnimandya 3 - severe
Akshikutshoth	0 - no Akshikutshoth 1 - mild Akshikutshoth 2 - moderate Akshikutshoth 3 - severe Akshikutshoth	0 - no Akshikutshoth 1 - mild Akshikutshoth 2 - moderate Akshikutshoth 3 - severe Akshikutshoth
Pindikodveshton	0 - no Pindikodveshton Result 1 - on & off Pindikodveshton 2 - on exertion Pindikodveshton 3 - continues Pindikodveshton	0 - no Pindikodveshton result 1 - on & off Pindikodveshton 2 - on exertion Pindikodveshton 3 - continues Pindikodveshton
Gatrasadan	0 - no Gatrasadan 1 - on & off Gatrasadan 2 - on exertion Gatrasadan 3 - continues Gatrasadan	0 - no Gatrasadan 1 - on & off Gatrasadan 2 - on exertion Gatrasadan 3 - continues Gatrasadan
Bhram	0- no Bhram 1 - on & off Bhram 2 - on exertion Bhram 3 - continues Bhram	0 - no Bhram 1 - on & off Bhram 2 - on exertion Bhram 3 - continues Bhram

	Before treatment	After treatment
Signs/ symptoms	1 st day	90 th day
Dorbalya	0 - no Dorbalya 1 - on & off Dorbalya 2 - on exertion Dorbalya 3 - continues Dorbalya	0 - no Dorbalya 1 - on & off Dorbalya 2 - on exertion Dorbalya 3 - continues Dorbalya
Shawaskruchata	0 - no Shawakruchata 1 - on & off Shawaskruchata 2 - on exertion Shawaskruchata 3- continues Shawakruchata	0 - no Shawakruchata 1 - on & off Shawaskruchata 2 - on exertion Shawaskruchata 3- continues Shawakruchata
Hridspandan	0 - no Hridspandan 1 - on & off Hridspandan 2 - on exertion Hridspandan 3- continues Hridspandan	0 - no Hridspandan 1 - on & off Hridspandan 2 - on exertion Hridspandan 3 - continues Hridspandan
Pandutva	0 - no Pandutva 1 - Mild 2 - Modearte 3 - severe	0 - no Pandutva 1 - Mild 2 - Moderate 3 - severe
Aruchi	0 - no Aruchi 1 - Mild 2 - Moderate 3 - Severe	0 - no Aruchi 1 - Mild 2 - Moderate 3 - Severe
Vaivarnya	0 - no Vaivarnya 1 - Mild Vaivarnya 2 - Moderate vaivarnya 3 - Severe Vaivarnya	0 - no Vaivarnya 1 - Mild Vaivarnya 2 - Moderate vaivarnya 3 - Severe Vaivarnya

OBSERVATION

In this clinical study 60 patient under the two groups. The details are as follows

The total patients registered for the study - 60

Patients under Group 'A' – 30

Patients under Group 'B' – 30
following observation made during this clinical trial.

ACCORDING TO SEX

In Group A- Female 18 patients (60 %) & male patients 12 (40%). In Group B- female 17 patients (57 %) & male 13 patients (43 %).

This major percentage of female shows that the incidence of PANDU is very common in females, probably due to irregular & prolonged menstruation, repeated pregnancies & Ahar, viharaj hetus like faulty dietary habits, diwaswap.

ACCORDING TO OCCUPATION.

House wife exceeded in both group.

In group A and group B Housewives were 7 and 9 Respectively.

This shows that pandu is commonly seen in Housewives.

ACCORDING TO SOCIO-ECONOMIC STATUS

In Group A patient having poor socio economic status were 17 middle class were 10 (33 %) & Rich were 03 (10 %).

In Group B number of patients having poor socio-economic status were 20 (67 %) middle class were 09 (30 %) and Rich were 01 (03 %). This show that, poor patients exceeded in both group probably due to malnourishment which could be due to poor socio economic status.

According to Diet

In Group A veg 19 mixed diet 26

In group B veg 13 mixed diet 17 patients.

In both group patients having mixed diet exceeded vegetarian.consumption of frequent non veg food results in agnimandhya.which is the prime cause for Pandu.

According to Dosha

In Group A Kaphaja 15 patients
 Pittaja 8 patients
 Vataja 5 patients
 Mrudbhakshanjanya – 2 patients

In Group B Kaphaja 15
 Pittaja 5
 Vataja 5
 Mrudbhakshanjanya – 1

In both group Kaphaja type of Pandu exceeded.

ACCORDING TO GENERAL SYMPTOMS

In both groups main symptoms such as daurbalya, pindikodveshtana, Bhrama, agnimanday were observed in almost both the group. Triphaladi Yoga was found effective in above all symptoms of Pandu Roga.

RESULTS

The effect of Triphaladi Yoga was assessed in both the groups on the basis of criteria designed for assessment. The observation were recorded in case record from on day 0 and 90th day. The result were drawn with appropriate statistical techniques.

TOTAL SYMPTOM SCORE

Variable	Group	N	Mean	Std Dev	DF	t Value	Pr > t
Score rate	Control	30	17.867	2.8975	58	11.55	<.0001
Study		30	8.3667	3.449			

OVERALL EFFECT OF TREATMENT ON HB%

Increase in Hemoglobin gm%	Group	No. of Patients	Percentage
No change	Control	27	45.00
	Study	0	0.00
0.1 - 1.5	Control	3	5.00
	Study	20	33.33
1.6 - 3.0	Control	0	0.00
	Study	10	16.67

DISCUSSION

In the list of the causative factors of PANDU, altered diet concepts plays the major role. Various types of fast food, fermented & bakery product & spicy food are the main reasons for Pandu. At the same time low socio-economic status leading to malnourishment plays an important role. Mental & physical stress & avoidance of rules of dinacharya is also responsible for PANDU. These all reasons collectively lead to formation of Ama which leads to Agnimandya, Ultimately results in improper formation of dhatus i.e. rasa, rakta etc. this results in PANDU.

Triphaladi Yoga is Tikta rasapradhan kalp. Tikta rasa is agnideepak and amapachak. It is also helpful for dhatvagnideepan - Mainly Rasagni & Raktagni. Most of the dravyas are Tikta, kashaya rasatmaka, so acts mainly symptoms produced due to predominant pitta dosha in samprapti of Pandu. Therefore Triphaladi Yog was found effective in Pandu.

STATISTICAL ANALYSIS

For statistical analysis of the data, paired t-test and unpaired t- test were applied.

CONCLUSION

PANDU roga is seen more amongst younger and middle aged, females and socio-economically backward people. It was also found that dosha prakopaka ahar and vihar is mainly responsible. Amongst the 60 patients majority had Kapha and Pitta doshaj Pandu. TRIPHALADI YOGA shows significant results in these types of Pandu. When administered to the patient of Pandu in the dose of 1gm Twice a day after meals orally per patient for 90 days it has following effects.

TRIPHALADI YOGA shows significant effect in symptoms. Rise in Hemoglobin percentage. Maximum improvement seen in Kaphaja Pandu and Pittaja Pandu. Untoward effects were not seen in any patient receiving Triphaladi Yoga.

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Clinical :

Study of Guduchi Kwath (*Tinospora cordifolia*) in patients Of Dengue Fever with Thrombocytopenia

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Abstract

Keywords – Dengue fever, Vishamjwar, Platelet count, thrombocytopenia, Guduchi Kwath

Introduction

Dengue fever is an acute infectious disease caused by an arbovirus in the Flavivirus genus & is transmitted mainly by bites of the *Aedes aegypti* and *Aedes albopictus* mosquito species. This disease can be correlated with Vishamjwar in Ayurved.

Aim

To study the effect of guduchi kwath in patients of dengue fever with thrombocytopenia

Objectives

To study the clinical features ,laboratory profile in patients with dengue fever.

Material and Methods

Guduchi Kwath prepared as per Sharangdhar Samhita

180 patients with age > 18 years with Dengue NS1 positive or dengue IgM positive or IgG & IgM positive with thrombocytopenia

Results

100 % patients received Guduchi Kwath, whereas 16.66 % percentage of patients were purely on Guduchi Kwath while remaining 150 patients ,i.e. 83.33 % patients received Guduchi Kwath plus modern medicines as per need. Out of the 150 patients ,6 patients i.e.4% patients were referred outside having severe hemorrhagic shock conditions for further management. All patients responded well.

Conclusion

Guduchi Kwath in the dose of 40 ml mor-evening in the dengue fever showed improvement in the platelet count. All patients responded well. This can be used as a single drug in uncomplicated cases.

Introduction

Dengue fever is an acute infectious disease caused by an arbovirus in the Flavivirus genus & is transmitted mainly by bites of the *Aedes aegypti* and *Aedes albopictus* mosquito species. There are four serotypes (DEN-1, DEN-2, DEN-3 & DEN-4).

The disease manifestations range from a flu like illness known as dengue fever to a severe fatality known as dengue haemorrhagic fever and dengue shock syndrome. This disease can be correlated with Vishamjwar in Ayurved.

Objective

Recently (June 2014-Oct. 2014) there was increased incidence of Dengue fever in urban as well as rural area. During the said period near about 190 patients visited Bharati Ayurved Hospital. 180 patients (Age group -18-70 years) which required admission in the hospital were admitted whereas 10 patients were not admitted due to complicated medical conditions. Few of the patients referred from outside clinics having fever with thrombocytopenia and diagnosed dengue fever. 6 patients referred outside having Dengue shock syndrome after admissions. There is generalized misconception about use of Ayurvedic medicines in Dengue fever particularly thrombocytopenia and its outcome. Hence we decided to use Guduchi Kwath in few patients of Dengue fever with thrombocytopenia.

Materials and Methods

A prospective study was conducted in our hospital in the IPD of Kayachikitsa department from June 2014-Oct.2014. Various symptoms and signs were found in the patients. High grade fever (ranging from 102° F-104° F) with chills and break bone, headache, backache and ache in the extremities accompanied by sore throat, prostration and malaise were found.

Maximum patients had conjunctival suffusion (redness) and skin-flushed or blotched with maculopapular rash sparing palms & soles. After the rash fades, localized clusters of petechiae (Petechial haemorrhages), on the extensor surface of the limbs and over chest and abdomen, back were found. Few patients complained of itching all over the body in the beginning only and later showed thrombocytopenia.

Few % of patients found with signs of cardiac involvement. Showing cardiac suppression as bradycardia, hypotension etc. Hepatitis with mild jaundice was found in few of the cases. Dengue hemorrhagic fever also found in children living in endemic areas. (Pune- Cases reported from urban as well as rural area in the Pune district.)

Restlessness, epistaxis and abdominal pain –these symptoms were complained by the patients along with signs of hemorrhage –ecchymosis, gastrointestinal bleeding and epistaxis were also reported. Gastroenterologic complications –hemorrhage, tenderness & ascites were also found. Few of pts with secondary infection—dengue shock syndrome- acute fever, hemorrhagic manifestations & marked capillary leak- pleural effusion & ascitis – tendency for shock were treated very carefully with the help of experts in the field.

Continuous abdominal pain with vomiting, bleeding, a decrease in the level of consciousness, rash, conjunctival congestion & hypothermia – dengue shock syndrome along with acute kidney injury in dengue shock syndrome were referred to ICU after consultation with the seniors. Complicated patients with pneumonia, bone marrow failure, hepatitis, iritis, retinal hemorrhages, old age patients with bacterial superinfection, higher fever, gastrointestinal bleeding, kidney disease and altered consciousness were also referred to ICU from the casualty.

Laboratory and Radiological Investigations

- 1) Thrombocytopenia, increased fibrinolysis and hemoconcentration – hemorrhagic form of disease
- 2) Haemogram with ESR .Leucopenia .ESR-normal
- 3) Detection of specific viral protein NS1 by ELISA } Platelet count < 100000/cmm
- 4) Dengue IgG,IgM in qualitative way} Platelet count < 100000/cmm
- 5) LFT deranged
- 6) Prothrombin Time
- 7) X-Ray Chest- in DHF-infiltrates & pleural effusions
- 8) USG –A-P – hepatitis, hepatomegalae,splenomegalae,ascitis.

Treatment

Guduchi (*Tinospora Cordifolia*)

Botanical Description -

Large, glabrous, deciduous climbing shrub.

Stem - stem is covered by transperant layer that can be peeled off. Leaves - heart shaped 2-4 cm in diameter, individualized, pointed at tips and slimy, long petiolate.

Flowers - small yellow or green, male flowers in clustered, female flowers usually solitary.

Fruit - drupes ovoid or subglobose, glossy red pea sized, appearing red on ripening.

Seeds - hite, bean shaped

Habitat - Found throughout tropical India, ascending to an altitude of 900 m from Kumaon eastwards as well as southwards upto Shri Lanka.

Properties -

Rasa	- Titka, Kashay
Virya	- Ushna
Vipak	- Madhur
Guna	- Guru, Snigdha
Prabhav	- Vishaghna

Karma -

Doshakarma - Tridoshashamak, Pittasarak

Other Karma - Kushthaghna, vedanasthapan, trushnanigrahan, dipan, pachan, anuloman, krimighna, hridaya, rasayan, balya, vishaghna, vrushya, pramehaghna, mutrajanan, jwarahar, sangrahi.

Chemical Composition - Tinosporine, tinosporon, tinosporic acid, tinosporol, tinosporide, tinosporidine, columbin, chasmanthin, palmarin, berberine, geloin, giloinisin, 1,2 – substituted pyrrolidine, etc.

Pharmacological Actions -

Hypoglycemic, anti-inflammatory, antibacterial, antimicrobial, antipyretic, antiarthritic, antiallergic, hepatoprotective, analgesic, immunostimulant, antioxidant, hypotensive, adaptogenic, antitumor, antidiabetic, etc.

Use In Various Diseases – Gout, skin conditions, haemorrhoids, diabetes, fevers, rheumatoid arthritis, eye diseases, general debility, asthma, vomiting, flatulence, acid gastritis, fractures.

Useful Parts – Stem, Leaves, Sattva, Root

Pharmacognosy -

STEM – terete, sparsely lenticellate. Young stem green with smooth surfaces and swelling at nodes, older ones show a light brown surface marked with protuberances due to circular lenticels.

Dose - stem powder – 3-6 gm, stem decoction – 50-100 ml, sattva – 1-2 gm

Substitutes And Adulterants – *T. crispa*, *T. chinensis*. are substituted or adulterated. Guduchi sattva is adulterated with flour of potato, sweet potato, arrowroot, banana, etc.

Preparation Of Guduchi Kwath

1 Pal (40 gm) of raw of Guduchi Kand (stem) taken and added with 16 times of water (640 ml), boiled (on Mandagni) and reduced to 80 ml (1/8th part), filtered and administered in the morning and evening.

Treatment

- 1) Isolation and beds with mosquito nets and mosquito repellent coils wherever necessary.
- 2) Tepid sponging
- 3) Guduchi Kwath 40 ml mor-eve after meals to every patient.(180 patients) . Out Of 180 patients 30 patients were purely on Guduchi Kwath.They were given iv fluids wherever needed.These patients showed platelet counts in the range of 20000-100000/cmm and having no any other complications except mild ascitis and mild pleural effusion in few patients but still were stable. It is found that this Kwath helped in increasing the platelet

counts .Also in lowering the temperature and also worked as analgesia.Improvement was seen in the appetite and also in relieving maculopapular rash and itching .

- 4) Paracetamol than NSAID's for analgesia and lowering temperature. Inj . Febrinil 2 cc iv as per need to lower down the temperature.
- 5) Volume support- RL and as per the need and monitoring vital signs and blood volume – complications of dengue hemorrhagic fever or shock syndrome
- 6) Blood products – RDP (Randomised donor platelets) ,SDP (Single donor platelets) , Fresh frozen plasma (FFP) .Platelet transfusions for severe thrombocytopenia <10000/ cmm or when there is evidence of bleeding
- 7) Corticosteroids- role not proven but it is in practice of giving short course of Inj .Dexamethasone in tapering dose. It is found to be very effective.It is given in the patients where platelet count showed downward trend and below < 50000 /cmm.
- 8) Pressor agents
- 9) Antibiotics wherever needed to prevent second infections preferably Fluroquionolones
- 10) Antiemetics and Antihistaminics whenever needed.

Pathyapathya

Pathya - Manda, Peya, Vilepi, Siddha Dudgha, Phalarasa, Shadangodak, Siddha Jala

Vihar- Strict bed rest, no any kind of exertion or overexertion, toilets should be near to the bed or bed-pans advisable.

Apathya (Contraindicated) – During active and remission phase of fever till patient regains vigor and power, diet which is Vidahi , Guru , Virrudha and Asatyma in nature, sex indulgence, exercise , exertion , overeating , bath and unnecessary exertion should be avoided.

Outcome

- 1) 100 % patients received Guduchi Kwath, whereas 16.66 % percentage of patients received were purely on Guduchi Kwath while remaining 150 patients , i.e. 83.33 % patients received Guduchi Kwath plus modern medicines as per need. Out of the 150 patients , 6 patients i.e. 4% patients were referred outside having severe haemorrhagic shock conditions for further management.
- 2) All patients responded well. Patients required admissions in the hospital for 3-10 days depending upon the condition of the patient.
- 3) Platelet count showed improvement after giving Guduchi Kwath.
- 4) Helpful in hepatitis and hepatomegalae
- 5) Wherever RDP ,SDP given improvement was in the platelet count seen. Few patients needed multiple transfusions.

- 6) Patients were discharged after improvement in the platelet count > 150000/cmm.
- 7) Guduchi Kwath continued for 3-7 days after discharge to every patient.
- 8) Every patient asked for follow-up after 3 days after discharge and each and every patient was investigated for haemogram and specifically platelet count. LFT also was done. Improvement in the platelet count and leucocytes were noted. Deranged LFT's showed improvement.

Role of Guduchi and Tikta Rasa

Charakacharya has quoted that for Doshapachan and Shaman, decoctions made from Tikta Rasa are advisable. As Tikta Rasa is having prominently Vayu and Akash Mahabhuta, the Dravyas having Tikta Rasa are Laghu, cleans the Strotas, have Sheetaveerya and does the Pachan. By Agnivardhan property, these Dravyas act on Agnimandhya, Aam and Pittanubandh, thus helps in the pathogenesis (Samnya Sampraptibhanga) of Jwar (fever). Thus Guduchi having Tikta and Katu Rasa does Agnideepan, Aampachan.

Guduchi is antibacterial, anti-pyretic, immunomodulator, analgesic, having no any kind of toxicity, hepatoprotective, anti-inflammatory, antimicrobial, Smooth muscle relaxant, antioxidant, cardioiprotective hypoglycemic activity and thus helps in dengue haemorrhagic fever.

Conclusion

- 1) Guduchi Kwath in the dose of 40 ml mor-evening in the dengue haemorrhagic fever showed improvement in the platelet count
- 2) This can be used as a single drug in uncomplicated cases.
- 3) Helps in lowering the temperature.
- 4) Helps in relieving the maculopapular rash .
- 5) Helpful in hepatitis and hepatomegalae
- 6) Works as an antiallergic and antihistaminic
- 7) No any kind of side effect of the Guduchi Kwath seen
- 8) It's a good appetizer. Shows overall improvement.
- 9) No side effects seen
- 10) More blind studies are needed.

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Case Study :**A Single Case Study : Guduchi Kwath
(*Tinospora cordifolia*) in Dengue Fever**

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Pune - 43 (MS), Cell -,9890111954, 9403580305. Email -dshinde249@gmail.com**Abstract**

Keywords – Dengue fever, Vishamjwar, Platelet count, Guduchi Kwath

28 years male patient presented with complaints of high grade fever (102° F) with chills and break bone, headache, backache and ache in the extremities accompanied by sore throat, and generalized weakness since 2-3 days admitted for 7 days.

On Examination - Tachycardia, BP- 100/70 mm of Hg, RS-mild basal crepts bilateral, CVS-NAD, CNS – Conscious, oriented, restless and anxious. Toxic look due to fever. P/A- mild tenderness in right hypochondriac and epigastric region.

On Investigation -

On admission

HB-16.4 gm%, TLC- 8600/cmm. Platelet Count-25000/cmm ,S.Urea- 32mg/dl ,S.Creatinin 1.0 mg/dl ,LFT- normal ;Urine Examination – No RBC's

Dengue IgG : Positive, IgM: Negative, Dengue for NS1Ag : Positive

X-ray Chest- Bilateral lung congestion- mild pleural effusion ; RMT – Negative

USG –Abd –Pelvis- mild ascitis, mild pleural effusion in both lungs with lung collapse

On Discharge

Platelet Count- 223000/cmm

X-ray Chest-NAD,

USG –Abd-Pelvis -NAD

Treatment and Conclusion

Guduchi Kwath 40 ml mor-eve from admission till discharge from the hospital and next follow-up. Guduchi Kwath in the dose of 40 ml mor-evening for 7 days in the dengue hemorrhagic fever showed improvement in the platelet count and overall improvement.

Introduction

Dengue fever is an acute infectious disease caused by an arbovirus in the Flavivirus genus & is transmitted mainly by bites of the *Aedes aegypti* and *Aedes albopictus* mosquito species. There are four serotypes (DEN-1, DEN-2, DEN-3 & DEN-4). The disease manifestations range from a flu like illness known as dengue fever to a severe fatality known as dengue haemorrhagic fever and dengue shock syndrome. This disease can be correlated with Vishamjwar in Ayurved.

28 years male patient presented with high grade fever (102° F) with chills and break bone, headache, backache and ache in the extremities accompanied by sore throat, and generalized weakness since 2-3 days. Patient had conjunctival suffusion along with maculopapular rash and petechiae (Petechial haemorrhages), on the extensor surface of the limbs and over chest and abdomen. Also complained of mild itching on the day of admission.

Patient also complained mild dyspnoea on exertion with abdominal discomfort. Patient had no history of any kind of major illness in the past.

O/E- tachycardia, BP- 100/70 mm of Hg, RS-mild basal crepts bilateral, CVS- NAD, CNS – Conscious, oriented, restless and anxious. Toxic look due to fever.

P/A- mild tenderness in rt. hypochondriac and epigastric region.

On Investigation-

11 July 2014

HB-16.4 gm%

TLC - 8600/cmm. N-65%, L-23%, E-11%, M-00%, B-01%, WBC morphology - Eosinophilia, Parasites- not seen, Platelet Count-25000/cmm . ESR- 12 mm/hr

Dengue IgG : Positive

IgM: Negative

Dengue for NS1Ag : Positive

S.Urea- 32mg/dl

S.Creatinin 1.0 mg/dl

LFT- normal

Urine Examination – Pale yellow, appearance- turbid, Proteins – present (+), Pus cells -4-5/hpf. Epithelial cells – 2-3/hpf. R.B.C. – Absent.

X-ray Chest- Bilateral lung congestion- mild pleural effusion

12 July 2014

Platelet Count-36000/cmm, Rapid malaria Test – Negative

USG –Abd –Pelvis- mild ascitis, mild pleural effusion in both lungs with lung collapse

USG Thorax- mild pleural effusion in both lungs with lung collapse

13 July 2014

Platelet Count-50000/cmm

14 July 2014

Platelet Count-90000/cmm

15 July 2014

Platelet Count-120000/cmm

16 July 2014

Platelet Count-165000/cmm

17 July 2014

Platelet Count- 223000/cmm

X-ray Chest

USG –Abd-Pelvis

USG Thorax

Advised but not done because of financial constraints.

On Treatment

Guduchi (Tinospora Cordifolia)

Properties

Rasa - Titka, Kashay

Virya - Ushna

Vipak - Madhur

Guna - Guru, Snigdha

Prabhav - Vishaghna

Karma

Doshakarma - Tridoshashamak, Pittasarak

Other Karma - Kushthaghna, vedanasthapan, trushnanigrahan, dipan, pachan, anuloman, krimighna, hridya, rasayan, balya, vishaghna, vrushya, pramehaghna, mutrajanan, jwarahar, sangrahi

Chemical Composition – Tinosporine, tinosporon, tinosporic acid, tinosporol, tinosporide, tinosporidine, columbin, chasmanthin, palmarin, berberine, geloin, giloinisin, 1,2 – substituted pyrrolidine, etc.

Pharmacological Actions

Hypoglycemic, anti-inflammatory, antibacterial, antimicrobial, antipyretic, antiarthritic, antiallergic, hepatoprotective, analgesic, immunostimulant, antioxidant, hypotensive, adaptogenic, antitumor , antidiabetic, etc.

Use In Various Diseases

Gout, skin conditions, haemorrhoids, diabetes, fevers, rheumatoid arthritis, eye diseases, general debility, asthma, vomiting, flatulence, acid gastritis, fractures

Useful Parts - Stem, Leaves, Sattva, Root

Pharmacognosy

Stem - terete, sparsely lenticellate. Young stem green with smooth surfaces and swelling at nodes, older ones show a light brown surface marked with protuberances due to circular lenticels.

Dose - Stem powder – 3-6 gm, Stem decoction – 50-100 ml, Sattva – 1-2 gm

Preparation Of Kwath

1 Pal (40 gm) of raw of Guduchi Kand (stem) taken and added with 16 times of water (640 ml), boiled (on Mandagni) and reduced to 80 ml (1/8th part), filtered and administered in the morning and evening.

Treatment

- Guduchi Kwath 40 ml mor-eve from admission to discharge from the hospital and till next follow up.
- Propped Up Position , Isolation and bed with mosquito net
- Tepid sponging
- Inj . Febrinil 2 cc iv in high grade fever wherever necessary in the begining
- Volume support- RL and Iv fluids over first 3 days and encouraged for oral intake specifically liqids and later soft diet.
- No Blood products (RDP,SDP),antibiotics ,corticosteroids given.

Pathya - Manda, Peya, Vilepi, Siddha Dudgha, Phalarasa, Shadangodak, Siddha Jala

Vihar- Strict bed rest, no any kind of exertion or overexertion, toilets shoul be near to the bed or bed-pans advisable.

Apathya (Contraindicated) – During active and remission phase of fever till patient regains vigor and power, diet which is Vidahi, Guru, Virrudha and Asatyma in nature, sex indulgence, exercise, exertion, overeating, bath and unnecessary exertion should be avoided.

Guduchi and Tikta Rasa

Charakacharya has quoted that for Doshapachan and Shaman, decoctions made from Tikta Rasa are advisable. As Tikta Rasa is having prominently Vayu and Akash Mahabhuta, the Dravyas having Tikta Rasa are Laghu, cleans the Strotas, have Sheetaveerya and does the Pachan. By Agnivardhan property, these Dravyas act on Agnimandhya, Aam and Pittanubandh, thus helps in the pathogenesis (Samnya Sampraptibhanga) of Jwar (fever). Thus Guduchi having Tikta and Katu Rasa does Agnideepan, Aampachan.

Guduchi is antibacterial, anti-pyretic, immunomodulator, analgesic, having no any kind of toxicity, hepatoprotective, anti-inflammatory, antimicrobacterial, Smooth muscle relaxant, antioxidant, cardioiprotective hypoglycemic activity and thus helps in dengue haemorrhagic fever.

Conclusion

Dengue fever is becoming common now a days. Treatment with Ayurvedic medicines is simple in uncomplicated cases.

Guduchi Kwath in the dose of 40 ml mor-evening for 7 days in the dengue hemorrhagic fever showed improvement in the platelet count and overall improvement.

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Case Study :

Role Of Panchakarma In Management Of Yauvanpidika with special reference Acne Vulgaris A Case study.

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Abstract

In today's world of glamour and beauty it is a natural tendency that every one of us is highly conscious about our skin. Skin is the most visible part of the body that reflects personality of a person. Skin disorders like Yauvanpidika creates physical as well as mental stress to an individual.

In ancient days Yauvanpidika is not critical or not harmful because of proper diet & proper life style, Following a diet or life style that is against the season or the prakriti (nature) of a person produce disease. In Ayurvedic terms Yauvanpidika caused by aggravation of Pitta Dosha in body. The Pitta had further impaired the Rakta and Meda Dhatu (blood and fat tissues), producing toxins that blocked skin's pores, leading to pidika (acne) formation. Epidemiology of Yauvanpidika is increasing nowadays due to Industrialization and Agriculture. A simple knowledge of Ayurveda can help us prevent and even treat such skin disorders.

No of references (8)

Key words : Yauvanpidika, The unique combination of ayurvedic herbs, Effective therapy.

Introduction : Yauvanpidika is common health problem in younger age group, however adolescents are not exempted. As mentioned under ayurveda it will never take serious turn provided a good lifestyle and proper diet is adopted.

The modern science after detail research is unable to cure the disease but offer only symptomatic relief which include topical steroid and antibiotics. On this issue the Ayurveda has solution to cure the disease.

Case Report :

The present case study is successful ayurvedic management of case of yauvanpidika (Acne Vulgaris)

26 y/F patient came with c/o

- Blackheads
- Camedones
- Small papules with inflammatory changes

Over face & back since 6 montns she had tried all kinds of skin creams and Tablets but nothing provided long-term relief from his problem Management involve medicaments like panchakarma. Panchakarma were mentioned in the ayurvedic texts.

Personal History

Occupation: Job Marketing

O/E :

Nadi (pulse) = 74/min

Mala (stool) = Malavstamba

Mutra (urine) = Normal

Jeeva (tounge) = Eshatha saam

Agni = Normal Shabda (speech) = Normal

Druka (eyes) = Normal Akrti = Madhyama

Bala = Madhyama

Raktadaaba (B.P) = 130/70 mm/Hg

Material & Method:

First Visit : DEEPAN & PACHAN CHIKIISA

Amapachak Kwatha : 20 ml (twice a day) Anupana : Jala (Before meal)

Hingvashtak Churna : 3 gm (twice a day) Anupana: Cow ghee (Before meal)

Gandharva Haritaki Churna : 3 gm (Bed time) Anupana: Koshana jala (Bed time)

SNEHAPANA : For Vamana karma & Virechana karma Tikata ghrula in incersing dose i.e. (30ml, 60ml, 90ml, 120ml with Luke warm water)

VAMANA KARMA :

Vamana Kalpa : Madanphala (5gm) + Pimpali (2 1/2 gm)

Pariksha : Vaigiki = 7-8 Veg

Laingiki = Laghav, Klama, Shirojadya.

Antiki = Kramat Kapha Prabhut Pittanta

Maniki = 5-6 lit.

VIRECHANA KARMA :

Virechana Kalpa : Trivruttalcha 30 gm, Anupana: Koshana Jala

Pariksha : Vaigiki = 17 veg

Laingiki – Klama, Shirshul, Alpa hrullas Vatanul mana

Antiki = Kramat pitta kaphant

RAKTAMOKSHANA (SIRAVEDA) :

Snehapana : Tiktak ghrut : 15 ml twice a day method (Siravedha) Matra 30 ml Varna Ishat krushan (Blackishred)

VARNVA BASTI :

SARIVA (HEMIDICUS INDICUS) & MANJISHIA (RUBIA CORDIFOUA)

MILK – 200 ML

TIKTAK GHRUTA – 20 ML

KSHIR BASIT OF ABOVE CONTENTS WITH ALTERNATE ANUVASAN BASTI OF TILA TAILA & SAINDHAVA

Observations & Discussion :

- 1) Patient had slight decreases in blackheads after vamana.
- 2) After virechana & Raktamokshana marked improvement in blackheads comedones.
- 3) Varnay basti increases skin comptereion

Discussion :

Mukhadushika is one of type kshudra roga which has relapsing in nature. Vitiotion of kapha vata, shonita causes mukhadushika. Samshodhana is one of important treatment of Ayurveda which deal with elimination of aggravated Dosha from body. The patient has job of marketing a product for which be has undertaken lot of journey this leads to hetu of yauvanpidika as.

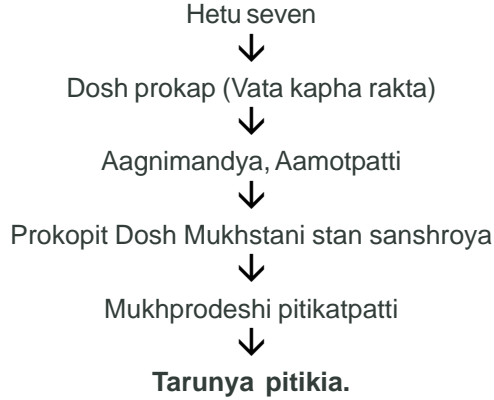
Ahar : Improper and irregular diet, oily spiy, sweet, fatty fast food, cold drinks causes the disturbance of tridoshas.

Vihar : Exertion immediately after meal. Aatap sevan vitiates rakta dhatu.

Vaya : tarunya Avastha (26 year old)

Manasika nidana : Chinata, shoka, bhaya santapa and udveg causes pitta prakapa, vala vrudhi

Samprapti :



SAMAPRATI GHATAKA

- Dosha – Kapha, Vata
- Dushya – Twacha, Sthanika ras, Rakta
- Agni- Jataragni, Dhatwagani
- Strotus – sthanika rasa, Rakata vahini

Samprapti – Bhanga :

Deepan pachana chikitsa : reduce Amadoshat increase Agni Snehapana : tiktak ghruta has pitta shamak property.

Vamana Karma : kapha reduced kapha dushuti Virechana & Raktamashana. Reduced shanita dushuti

Varnya basti : It conlain varnya dravyas (Ref. ch. Su.4) & has pitta shamak property as sariva has madhur vasa & shita virya manjistha has Tikta rasa & Ushana virya.

Conculsion :

Shodhan karma removes aggravated do shas irom body permantly various Panchakarma Procedures doing with internal medicines can bw option for management of mukhadushika.

BEFORE

AFTER

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Case Study :

“A Study To Evaluate The Efficacy And Safety Use Of Ayurvedic Remedies In Treating Male Infertility”

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ABSTRACT

Infertility is a global problem affecting the couple as a unit. It is a combination of both male & female factor. WHO reveals 2 to 10% of worldwide are unable to conceive primarily. In recent era, the occupational hazards have contributed to increase the ratio of infertility in both. Experience has shown that about 30% cases responsibility lies with male side. The cause for male infertility can be divided into 3 main categories. Low sperm count, low motility and anatomical disorders.

Here in this research case study Male infertility patients having history of married life 2 – 10 years, age under 26 – 50 years & reports of low sperm count & motility (oligospermia) were included. Anatomical disorders, systematic disorders & Positive reports of VDRL Hbs Ag & HIV were excluded.

Herbal remedies have been used since ancient times to treat infertility. Here to treat male infertility Polyherbal formulation consisting of Kapikachu, shweta musli, vidarkand, Ashwagand, shatavari, Gokshura, Kokilaksha, makaradwaja rasa, & purna chandrodaya rasa was given in dose of 2 capsules twice daily for 6 months.

Kapikachu contains high level of L – Dopa which is converted to Dopamine, that stimulates the release of growth hormone by pituitary gland. So act has a prophylactic agent in patient with oligospermia to increase sperm count. Along with shwet musli, vidarikand, makardwaja, purna chandrodaya rasa also a powerful aphrodisiac and increase count and motility. Shatavari helps to regeneration of seminiferous tubules and hence increase spermatogenesis. Ashwaganda also a main drug used in treating male infertility which acts as antioxidant, maintain genetic integrity of sperm cell, by preventing damage to sperm. Kokilaksha & gokshura controls spermatorrhoea & treat disease of genitourinary system, impotence and sexual debility also.

The spermatogenic action of these drugs in mainly is because they increase the testicular blood supply and stimulates the seminiferous epithelium. They also improve the quality of semen by increasing concentration and motility of sperm and reduce the abnormal sperms. Hence these drugs prevents male infertility and acts as nervine tonic physically and mentally.

Thus study have shown good results in treating male infertility as it increases sperm count,

concentration, sperm motility and morphology without any side effects. So I wish to conduct in a larger multi centric study to substantiate the encouraging results obtained by me.

References no 4

Keywords : * Infertility * male infertility * polyherbal durgs * World health organization.

Introduction

Infertility in a combination of both male and female factor. WHO reveals 2-10% world wide are unable to conceive primarily. The factors attributed to male infertility are defective sperm; certain factors affecting transport of sperm, damage or injury to the organs of reproduction.

In recent era the occupational has shown about 30% cases responsibilities lies with male side. The cause for male infertility are many. They are divided into three categories. Low sperm count and anatomical disorders and also quality & movement or motility of sperm and anatomical disorders.

Herbal remedies have been used since ancient times to treat infertility. The presents study was conducted to evaluate the efficacy & safety of polyherbal remedies to treat male infertility. Thus facilitate conception rates. These drugs have proven have increase has stimulate spermatogenesis count motility and quality & quantity of semen. They also exhibits excellent aphrodisise action by correcting pre-mature ejaculation. Therefore the combination of herbs helps to produce a proper physiological state for conception.

Materials & Method

Aims And Objects :

Aims : To study male infertility case

Objective : To evaluate efficacy of polyherbal remedies on selected patients.

Study Design : Open clinical study

source of data : OPD patients

Sample Size : Two patients

Selection of Drugs & Mode of Actions :

Sr.No	Name of Drugs	Latin Name	Dosage	Action
1.	Kapikacchu	Mucuna pruriens	200 mgs	Aphrodisiac action, acts as prophylactic agent, increase sperm count. Nerve tonic.
2.	Ashwaganda	Withania somniferia	500 mgs	Antistress, pro-oxidant, anti-oxidant balance.
3.	Shwet mushali	Chlerophytum arundinaccum	100 mgs	Powerful aphrodisiac, acts sperm motility.

4.	Vidhariganda	Puraria tuberosa	100 mgs	Improves sperm count.
5.	Shatavari	Asparagus racemosus	200 mgs	General tonics helps in regeneration of semini-ferrous tubules
6.	Gokshuru	Tribulus terrestris	200 mgs	Used to treat spermatorrhea, Gento urinary system diseases & impotency.
7.	Kokilaaksha	Ashtra cantha longifolia	150 mgs	Control spermatorrhea.
8.	Makardwaja	-	25 mgs	Powerful aphrodisiac and increases sperm count & motility.
9.	Purna chandrodaya	-	50 mgs	Powerful aphrodisiac and increases sperm count & motility.

Dose : 2 Capsule twice daily with luke warm water for 6 months.

Exculsive Criteria & Inclusive Criteria :

Exculsive Criteria	Inclusive Criteria
Age below 26 years & above 50 years.	Age between 26 to 50 years.
Patients reporting HIV Hb _s Ag VDRL Reactive Nonreactive.	Patients reporting HIV Hb _s Ag VDRL
Marriage less than 1 to above 10 yrs history	Marriage inbetween 2-10 yrs.
Antomical Disorders of sperm & Systemic disorders	Patients reporting oligospermia

Discussion :

case report :

Semen Analysis	Case ~ I Shri. Ganesh Salgar Age-27 yrs M/H/O ~ 5 yrs		Case ~ II Shri. Ganesh Dhanage Age-30 yrs M/H/O ~ 8 yrs	
	1 st report	2 nd report	1 st report	2 nd report
Physical Examination				
Volume	2.5 ml	2.5 ml	2 ml	2 ml
Colour	Opaque white	Opaque white	Grey white	Grey white
Viscosity	Normal	Normal	Normal	Normal
Chemical Examination				
Reaction	Alkaline	Alkaline	Alkaline	Alkaline
Fructose	Present	Present	Present	Present

Microscopic Examination				
Total Sperm count	10 millions/ml	15 millions/ml	18 millions/ml	20 millions/ml
Active %	10%	10%	30%	60%
Sluggish %	30%	20%	15%	20%
Inactive %	60%	70%	55%	20%
Morphology	Normal	Normal	Normal	Normal
Impression	Oligospermia	Oligospermia	Oligospermia	Normal

After Treatment :

Semen Analysis	Case ~ IM/H/O ~ 5 yrs Shri. Ganesh Salgar Age-27 yrs M/H/O - 5 yrs	Case ~ IIM/H/O ~ 8 yrs Shri. Ganesh Dhanage Age-30 yrs M/H/O - 8 yrs
Physical Examination		
Volume	2.5 ml	2 ml
Colour	opaquwhite	Greywhite
Viscosity	Normal	Normal
Chemical Examination		
Reaction	Alkaline	Alkaline
Fructose	Present	Present
Occult Blood test	Negative	Negative
Microscopic Examination		
Total Sperm count	79 millions/ml (20-200 mill/ml.)	82 millions/ml (20-200 mill/ml.)
Active %	88	40
Sluggish %	02	10
Inactive %	10	50
Morphology	Normal	Normal
Impression	Semen Analysis within normal limit	Semen Analysis within normal limit

Discussion :

Every couple look forward for happy and healthy parent hood. If the married couples are unable to conceive within one year of continuous intercourse then it requires a consultation for infertility treatment. About 20-30% cases in which no causative factor can be isolated in males or females are labeled as cases of unexplained infertility. Normally females who are unable to conceive are treated with hormonal preparations, gonadotrophins or subjected to various surgical interventions.

These approach to the treatment of infertility not only require accurate diagnosis but also special care and are very expensive. In males, general tonics, vitamins, hormones or surgery are recommended. Hormonal therapy does have side effects and toxicity. Hormonal therapy results are not satisfactory.

Hence the alternative and safest approach, which improves the chances of fertility without any, side effects. The above study was done to analyses to efficacy of these drugs in treatment of male infertility. Polyherbal formulation consisting of Kapikachu, shweta musli, vidarkand, Ashwagand, shatavari, Gokshura, Kokilaksha, makaradwaja rasa, & purna chandrodaya rasa was given. Kapikachu contains high level of L – Dopa which is converted to Dopamine, that stimulates the release of growth hormaone by pitutary gland. So act has a prophylactic agent in patient with oligospermia to increase sperm count. Along with shwet musli, vidarikand, makardwaja, purna chandrodaya rasa also a powerful aphrodisiac and increase count and motility. Shatavari helps to regeneration of somniferous tubules and hence increase spermatogenesis. Ashwaganda also a main drug used in treating male infertility which acts as antioxidant, maintaine genetic integrity of spermcell, by preventing damage to sperm. Kokilaksha & gokshura controls spermatorrhoea & treat disease of genitourinary system, impotence and sexual debility also.

These combine effect of drugs shows the improvement in sperm count motility morphology & improve infertility and induce conception.

Conclusion :

In this presents study these polyherbal formulation achieved a very good improvement in Oligospermia. Without any side effects during the trails. Hence, considered has safe alternative therapy. Thus it is effective a male infertility has increases sperm concentration motility, morphology.

We also wish to conduct these trails in large Multicentric study to substantiate the encouraging results obtained by this drugs in presents study.

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Experimental :

“Experimental Evaluation of Panchagavya Ghrita on Depressive Disorders”

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ABSTRACT :

Depression is a widespread psychiatric disorder affecting around 5% of the population and can be estimated to be second largest global burden of disease after heart disease by 2020. *Panchagavya ghrita* (PGG) is one of the *Ayurvedic* “*Snehapaka* formulation” (cha. chi. Cha.15) which contains five ingredients obtained from Cow. PGG was proven to possess hepatoprotective, anticonvulsant, Anti-epileptic and Antioxidant activity. In this study it was evaluated for its Antidepressant activity using Forced Swim Test (FST) & Tail Suspension Test (TST). Among 6 groups 3 were of PGG (1.8mg/kg, 3.6gm/kg, 7.2gm/kg respectively in rats & 2.5gm/kg, 5.0 gm/kg, 10 mg /kg respectively in mice). For both the tests, imipramine (10mg/kg in rats & 2.6mg/kg in mice) was used as a standard control where as Goghrita (3.6gm/kg in rats & 5.0gm/kg in mice) was used as a vehicle control and plain control was treated with distilled water. All the drugs were administered orally for the duration of 21 days. Data was analysed using Paired T-test and One way Anova followed by Dunnett’s test. In FST at 5.0 gm/kg and TST at 3.6gm/kg dose, PGG showed statistically significant results comparable as that of imipramine. So it can be concluded that results of the present study indicate the potential for use of PGG as an adjuvant in the treatment of depression.

Keywords : Panchagavya ghrita, Depression, Forced Swim Test & Tail Suspension Test.

INTRODUCTION :

Mental illness constitutes the major disease burden worldwide¹. WHO states health to be -“a state of complete physical, mental, social and spiritual well being”². Thus mental and social well being have equal importance when compared to physical attributes.

In current scenario impairment of mental health is observed, as every individual is coping up to gain lavishing high profile status and seeking peak level ambitions. This leads to diseases like Depression, Schizophrenia, Anxiety, Mania, Alzheimer’s disease etc. which are observed in patients and can be correlated to *Arati*³, *Vimanasakata*⁴, *Shunyata*⁵, *Unmad* and *Apasmar* in *Ayurvedic* classical texts. **Depression** is a state of low mood and aversion to activity that can affect a person’s thoughts, behavior, feelings and physical well-being⁶. The prevalence of depression in general population is estimated to be around 5%. At present 121 million people are estimated to suffer from depression. An estimated 5.8% of men and 9.5% of women

experience a depressive episode in their lifetime with suicide being one of the most common outcomes of depression.⁷ Although the currently prescribed molecules provide some improvement in the clinical condition of patients⁸

There are several single and compound drug formulations of plant origin explained in Ayurved which are useful for the treatment of psychiatric disorders.^{9,10} Among them *Siddha Ghrita* preparation are centrally focused as these lipids have the ability to cross the blood brain barrier. *Ghrita* seize a unique property "*Sanskarsyaanuvartanam*" i.e. it carry forwards the therapeutic efficacy of the drugs which are used along with it in the formulation devoid of losing its own properties.

Panchagavya ghrita (PGG) is one of the '*Siddha Ghrita formulation*' containing five ingredients obtained from cow viz. cow dung juice, sour curd prepared from cow milk, cow urine, cow milk and cow ghee. In classical texts it is prescribed in the management of *Apasmar* (epilepsy) associated with *Jwar* (Fever) and *Kamala* (Hepatitis).¹¹ The ingredients of PGG have *Madhur - Katu rasa*, *Snigdha - Guru guna* (properties) and *Vata - Pittaghna* action. Particularly *Godugdha* (cow milk), *Goghrita* (cow ghee) and *Gomutra* (cow urine) possess *Medhya* (intellect and memory enhancing), Rejuvenating, Aphrodisiac activities.¹²⁻¹⁴ *Gomaya* (cow dung) has *Rakshoghna* action.¹⁵ Hence the combination of these ingredients with *Goghrita* may have cumulative effect to treat psychiatric disorders. PGG has been experimentally evaluated as a potent anti-epileptic and nootropic formulation. Its Antidepressant activity is yet to be explored. Therefore in the present study it is proposed to carry out antidepressant activity of PGG using animal models.

AIM :

Experimental Evaluation of Panchagavya Ghrita on Depressive disorders.

OBJECTIVES :

- ◆ To prepare and match P.G.G. by standard method following SOPs.
- ◆ To analyze and match P.G.G. in laboratory with established standard parameters.
- ◆ To evaluate Antidepressant activity of P.G.G.

MATERIALS & METHODS :

Animals :

The experimental protocol was approved by the Institutional Animal Ethics Committee (IAEC) of Bharati Vidyapeeth Deemed University Medical College. The study was conducted at CPCSEA approved central animal house, BVDU Medical College, Pune, recognized by CPCSEA (Regd. No. 258), Pune 43. Adult male Swiss Albino mice weighing 25-35 gm and Wistar rats weighing 180-200gm were used in this study. The animals were housed at 24±2 °C with 12:12 h light and dark cycle. They had free access to food and water *ad libitum*. The animals were acclimatized for a period of 7 days before the study. The study was conducted according to the Indian National Science Academy Guidelines for the use and care of experimental animals.

Drugs and chemicals :

Imipramine (Manas Pharma. Pvt. Ltd.) was taken as standard Antidepressant drug. The test drug Panchagavya Ghrita was prepared following pre-established SOP's by Pawar A. Experimental evaluation of anti epileptic activity of Panchagavya Ghrita (PGG) and its Effect on memory, BVDUCOA, dec.2013 and the control group drug was of plain Goghrita (cow ghee).

Experimental design :

The animals were divided into 6 groups as Plain control, Control group, Standard drug and 3 groups of Test drug i.e. X/2, X, 2X. Each group contains 6 animals considering their weight. Drugs/vehicle was administered to the animals 60 minutes prior to the trial. The drugs were administered for a period of 21 days. The trial was carried out 60 minutes post drug/vehicle administration on zero, 7th, 14th and 21st day. The antidepressant activity of the test drug was evaluated using the following experimental models of depression TST and FST

Tail suspension Test :

One mouse at a time was suspended from its tail to the edge of stand by an adhesive tape. After that the mouse was observed for a period of 5 minutes to check the duration of immobility. In this 5 minutes period the duration of immobility i.e. mice hanging passively & motionless was noted. Procedure was performed on zero day without dosing and was treated as baseline reading. Procedure was repeated on 7th, 14th & 21st day after dosing of animals.

Forced Swim Test (FST) :

For the test, each rat was picked from its tail and placed in the rotating wheel tank which contains water up to height of 13 cm. The rat once placed in the rotating wheel tank tries to escape from it but ends up rotating the wheel. The number of rotations was recorded in the digital counter for a period of 10 minutes which serves as an assessment criterion. Zero day reading was noted without any drug dose and was considered as baseline reading. All the rats from each group were then treated with the respective drug dose for a period of 21 days continuously. Forced Swim Test (rotating wheel model) trial was conducted on 7th, 14th and 21st day, 1 hour after dosing and number of rotations were noted.

Statistical analysis :

The data was analyzed using Student Paired T-test to compare of observational readings between 0 and 21st day of each group and one way ANOVA followed by Dunnett's test was used for intergroup comparison. Statistical analysis was performed using Graph pad prism 6.

Result :

Tail suspension test (TST) :

Table no.1: Effect of PGG in TST model after applying Students Paired T- test

Groups	Duration of immobility in seconds	
	0 day	21 st day
	MEAN \pm SEM	
Plain control	119.8 \pm 1.014	133.2 \pm 0.60
Goghrita control	121.3 \pm 4.79	112.7 \pm 3.11**
Standard control (Imipramine)	123.7 \pm 4.49	91.83 \pm 3.69***\$\$\$
Test drug PGG X/2	121.7 \pm 2.75	105.5 \pm 4.08**
Test drug PGG X	122.7 \pm 3.67	91.5 \pm 3.84***\$\$\$
Test drug PGG 2X	120.5 \pm 2.41	110 \pm 2.51***

* - indicates comparison with Plain control,

\$- indicates comparison with Goghrita control

Control Vs Goghrita control, Standard, PGG (X/2, X, 2X) *** p d" 0.01

Goghrita control Vs Control, Standard, PGG (X) \$\$\$ pd"0.01

Goghrita Vs PGG (X/2 and 2X) – Non-significant

Forced swim test (FST) :

Table no.2 : Effect of PGG in FST model after applying Students Paired T- test

Groups	Number of Rotations	
	0 day	21 st day
	MEAN \pm SEM	
Plain control	93.17 \pm 6.112	76 \pm 4.344
Goghrita control	94 \pm 22.3	105.3 \pm 1.174**
Standard control (Imipramine)	99.33 \pm 13.14	130.3 \pm 2.29***\$\$\$
Test drug PGG X/2	99.67 \pm 7.163	114 \pm 2.517**
Test drug PGG X	98.67 \pm 5.84	129 \pm 2.708***\$\$\$
Test drug PGG 2X	96.83 \pm 9.152	111.2 \pm 3.936***

* - indicates comparison with Plain control

\$- indicates comparison with Goghrita control

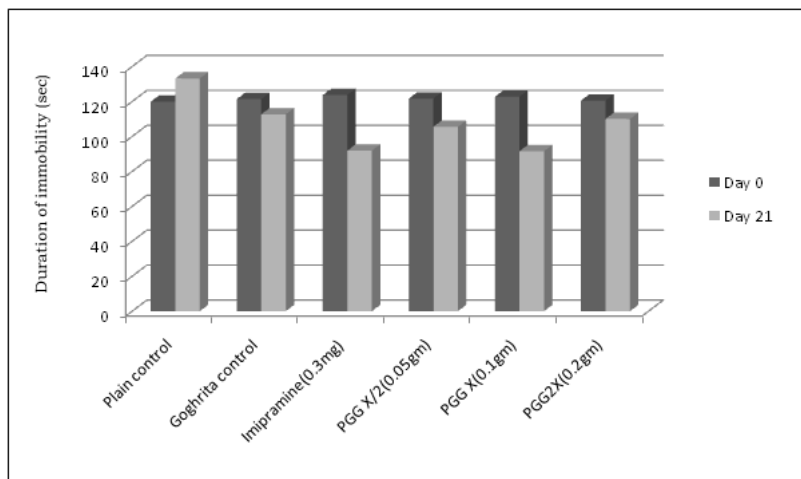
Control Vs Goghrita control, Standard, PGG (X/2, X, 2X) *** p d" 0.01

Goghrita control Vs Control, Standard, PGG (X) \$\$\$ pd"0.01

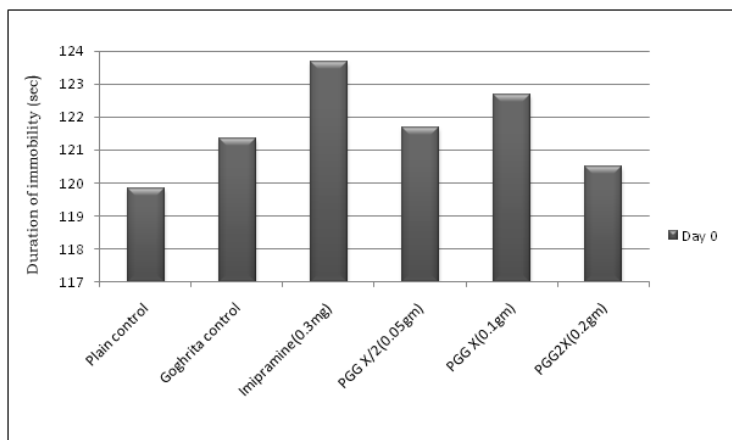
Goghrita Vs PGG (X/2 and 2X) – Non-significant

OBSERVATIONS AND STATISTICAL ANALYSIS :

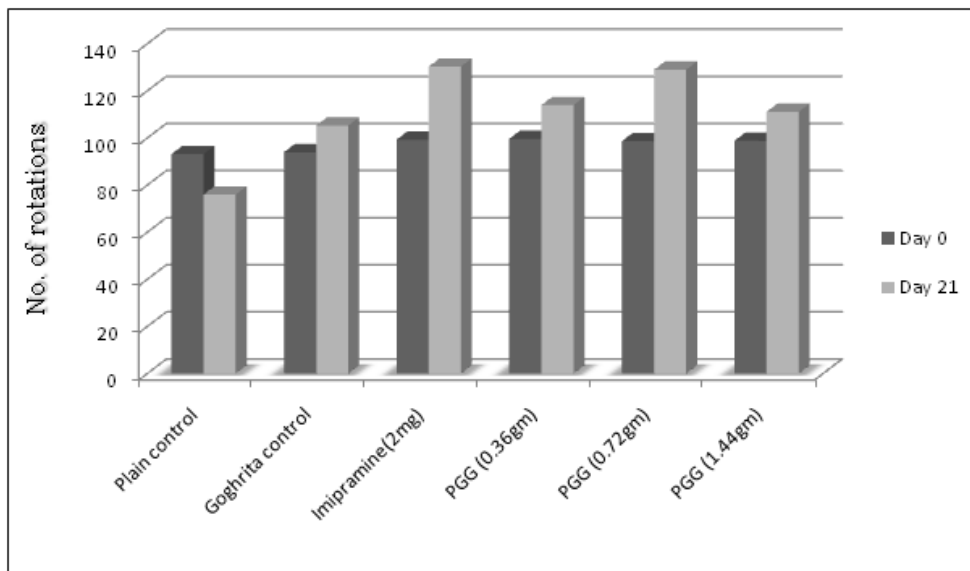
Graph 1: Effect of PGG in Tail Suspension Test (TST) model using mice on 21ST day by applying Paired-T Test :



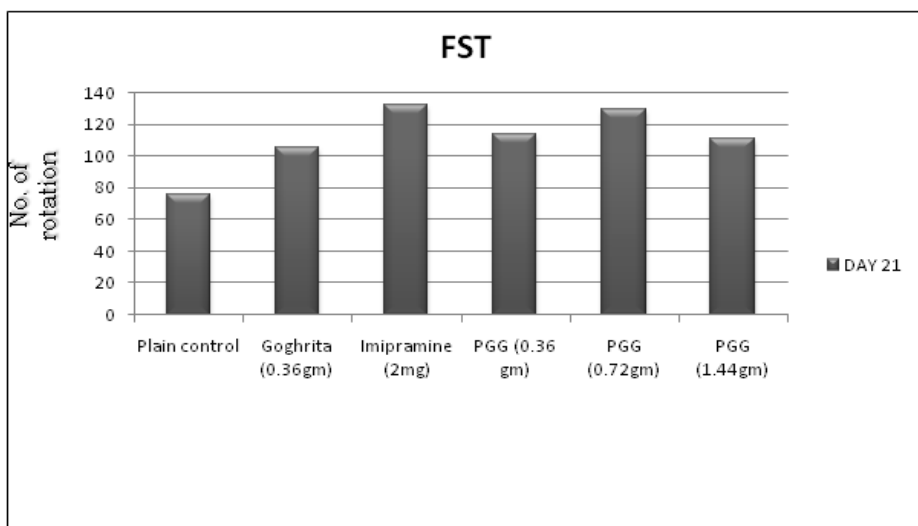
Graph 2: Effect of PGG in Tail Suspension Test (TST) model using mice on 21ST day by applying One way ANNOVA followed by Dunnett's



Graph 3: Effect of PGG in Forced Swim Test (FST) model in rats on 21ST day by applying Paired T-Test.



Graph 4: Effect of PGG in Forced Swim Test (FST) model on 21ST day by applying One way ANNOVA followed by Dunnett's



DISCUSSION :**DISEASE CORRELATION :**

In Ayurved *Vishaada*, *Avsaad*, *Aruchi* (loss of appetite), *Shouchdvesh* (apathy towards cleanliness), *Shunyata*, *Mand cheshta* (inactiveness) these are the premonitory symptoms found in *Unmad* patients. Symptoms of Depression includes Dejection, Melancholy, Languor, lassitude, Disinterested in surroundings, aversion, Untidiness, Reduced appetite, indigestion, introvert behaviour, social withdrawal. The symptoms like *Vishaad*, *Avasaad* and *Shunyata* can be correlated with the modern aspect of Depression. There is correlation between premonitory symptoms of *Unmad* and Depression. Thus it becomes easier to postulate that the drugs acting on *Manovaha Srotas* disorders i.e. *Unmad* can be used to treat Depression.

PHARMACEUTICAL STUDY :

Preparation of *PGG* and match its analytical values with the pre-established standard values is one of the objectives of this study. The standard analytical values and organoleptic test of all individual ingredients of *PGG* and *PGG* as a whole formulation are already mentioned in API. The analytical values and organoleptic test were comparable with pre-established standard values.

EXPERIMENTAL STUDY :

RATIONALE BEHIND SELECTION OF DRUG DOSING DURATION : Depression is a chronic disease and its pathology states that there is a deficiency of Amines in the synaptic cleft which leads to depression. Hence it needs a prolong treatment for complete remission of Amines in the synaptic cleft. The dose duration of all the drugs for both the studies was used as 21 days. As per reference of K.D. Tripathi "Essentials of Medical Pharmacology", the therapeutic effect of imipramine appears subsequent to 2-3 weeks. The group of Anti depressants i.e. Tri-cyclic antidepressants (TCA) inhibit active uptake of biogenic amines NA and 5-HT into their respective neurons and thus potentiate them. This results in increased concentration of the amines in the synaptic cleft in the Central Nervous System (CNS) and periphery. Thus after continuous drug treatment for 2-3 weeks, the mood of patients gradually elevated; patients become more communicative and start taking interest in self and surroundings¹⁶. So the dose duration of this study was finalized as 21 days. To support this, as per Ayurvedic perspective there are three theories regarding *Dhatu Poshan*¹⁷. According to first theory any dravya requires 24 hours to reach from *Rasa to Shukra Dhatu*. Second theory says that 7 days are needed for the same. Third theory says that 1 month is needed for this phenomenon¹⁸. Thus taking into account above modern and Ayurvedic perspective; trial was conducted on 7th, 14th & 21st day which completes 1st, 2nd, 3rd cycle as per second theory regarding *Dhatu Poshan*. Results revealed that imipramine showed antidepressant activity after completion of 21 days of treatment as it was expected. But as per the data; on 7th & 14th day, results were not significant for *Goghrita* control group and all the 3 dose levels of PGG. Thus we can interpret that *PGG* and *Goghrita* too; may require prolonged time for achievement of their Antidepressant effect.

PROBABLE MODE OF ACTION OF DRUGS :

PGG at X (medium) dose level in both the studied models showed significant Antidepressant activity comparable to standard drug Imipramine on 21st day. Reason behind this positive result can be explained in Ayurvedic perspective in the following manner.

One of the uniqueness of certain Ayurvedic formulations is that they comprise both agonist as well as antagonist drugs simultaneously. Panchagavya gritha is one among those drugs which is mentioned in *Apasmara* chikitsa. It seems exceedingly useful in various psychiatric conditions mentioned under the term *Unmad*.

By assessing the *rasapanchaka* of the five ingredients of PGG, it is very clear that the drug is pacificatory to the three *doshas* in nature with the predominance of *Kaphavata shamaka*. It possesses *Agni deepan* and *srotoshodhan* property¹⁹. (It cleanses the channels in the body). The *srotoshodhana* action of the drug helps to act deeply on the mind destructing the aavarana of *tamas* and gives its clarity. Cow curd has *Anulomana* property which results into alleviation of *vata*. The drug as a whole possesses *Medhya*, *Ojasya* and *Rasaayana* activities²⁰. Besides that, the *ghrita* is the best drug for potentiating *dhee*, *dhriti* and *smrithi*, which are the components of *budhi*, as per Ayurveda²¹. After summarising all the calibre of PGG, it can be interpreted that PGG may have shown positive Antidepressant activity at the therapeutic dose level, due to above mentioned potent efficacy. As per modern aspect, the group of Antidepressants i.e. Tri-cyclic antidepressants (TCA) inhibit active uptake of biogenic amines NA and 5-HT into their respective neurons and thus potentiate them. This results in increased concentration of the Amines in the synaptic cleft in the Central Nervous System (CNS) and periphery. Imipramine which falls under this group acts in the same manner. As PGG showed comparable results with that of imipramine so it can be interpreted that PGG may act through the same mechanism as that of Imipramine.

Probable reason behind not acquiring desired results for X/2 and 2X dose levels on 21st day, can be stated as, the X/2 dose i.e. half of the therapeutic dose may not have proved to be sufficient to pacify the disease condition. As against 2X dose i.e. double the amount of therapeutic dose may have proved to be excessive because in diseased condition Agni (digestion capacity) becomes *vishama* (abnormal) similarly anorexia is one of the main symptoms of depression as quoted in literature review. Thus excess amount of drug which is specially a *ghrita* based formulation may not be digested & thus excreted out of the body as an undigested part showing non- significant results.

CONCLUSION :**PHARMACEUTICAL STUDY :**

- ◆ *Organoleptic* tests and physico-chemical constants of the prepared PGG were analogous with the established standard values.

EXPERIMENTAL STUDY :

- *Panchagavya Ghrita* has shown effective Antidepressant potential when gauged using FST & TST models.
- Thus PGG can be used as an adjuvant in the treatment of depression.

- On 7th & 14th day results for both the models were not significant so we can conclude that duration of drug dose should be of minimum 21 days to get significant Antidepressant action.

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Review :

“Conceptual Study Of Poly Cystic Ovarian Syndrome In Ayurvedic Perspective With The Help Of Prediagnosed Patients”

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ABSTRACT :

POLY CYSTIC OVARIAN SYNDROME is a syndrome hampering reproductive life of women. PCOS is not directly mentioned in classical texts but has its glimpse in SaChitâ. The current available treatment modalities have their own side effects which further depletes the already disturbed endocrine system. This diagnostic survey study evaluates the aetiology, pathogenesis and prognosis of such newly arrived disease in Âyurvedic perspective to achieve perfection in treatment regimen. 100 diagnosed PCOS patients between the age group 15 to 40yr., irrespective of their marital status like married/unmarried/widow are thoroughly examined with the help of subjective and objective parameters. Causative factors were studied with keen observation of their diet, life style and mental status. The collected data regarding Hetus of PCOS were verified and their role in the manifestation of Samprapti of PCOS was justified. From life style & dietary habits the disturbance of Vata & Kapha Dushti was studied with the help of symptoms. PCOS is the manifestation of various factors such as Santarpan, Apatarpan, and Agni Vikriti. This link was established between specific diet & specific Dushti. Santarpan patients have shown Margavarodh-janya Vata Vikriti & Apatarpan patients have shown Dhatukshay-janya Vata Vikriti which ultimately has disturbed governing power of Vata Dosha & ultimately leads in PCOS. From the analysis of cases, factors responsible for Vikrit Artav are Vikriti of Saman Vayu, Apan Vayu, Pitta, Kapha & Rasa, Rakta Dhatu Dushti. This interruption is the outcome of Mithya Aahar-Vihar, disobedience of Rajaswala Paricharya, distorted medication, heredity & stressful life-style. (No. of references - 35)

Keywords : Poly Cystic Ovarian Syndrome (PCOS)

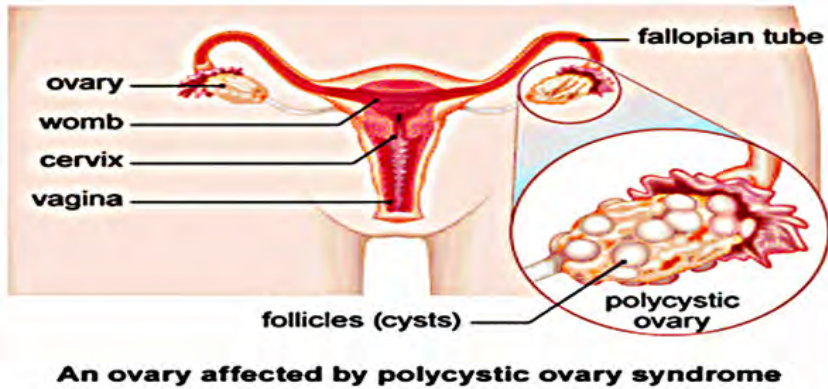
INTRODUCTION :

The woman is the chief cause for progeny; if she gets protection then indirectly progeny is secured. The development of society depends upon health of women.

PCOD is newly emerged disorder in female & it starts giving trouble since puberty. In current scenario though this disease is more high up, its root are from previous generation i.e. from mothers distorted life style.

PCOD is getting more and more attention in gynaecological practice as patients of PCOD are increasing since last decade. This disease occurs in teenage girls and women under 35

years of age. As this disease seems to be very simple but its complications on women's health, fertility & psychological status are severe. In 1935, Stein and Leventhal published their report of seven women with unexplained anovulation, amenorrhea, hirsutism, obesity, and enlarged polycystic-appearing ovaries.



In modern science there is no such effective treatment for its complete cure only symptomatic treatment, HRT; operative ovarian drilling is used to treat the disease.

Therefore only symptomatic treatment is not an accurate line of treatment, so it needs to be treated from the base i.e. tridoú & Saptadhātu as Âyurved stated that balanced condition of Tridoúa, Saptadhātu & Mala is needful for healthy body and mind.

So, in contemporary era it is very important to provide a particular etiopathology and treatment for "PCOS". So it is very essential to know that what the exact causes of PCOS are and need of this study is to focus more on 'Hetu Niœciti' of PCOS. To implant a 'uddhá-Cikitsâ', Âyurveda has to play a major role to find a root cause, pathogenesis and prognosis of this disease.

MATERIAL AND METHADODOLOGY

MATERIAL :

- B^ohatrayi, Laghutrayi , other allied Âyurvedic and Modern literature.
- 100 diagnosed PCOS patients from Bharati Âyurved Hospital and other Âyurvedic/Allopathic clinics in Pune city.

METHODOLOGY

A. Literary study :

- All the references of Hetu and LakcaGa related to PCOS were compiled from Modern and Âyurvedic texts.

- Ârtava-vaha Srotoductikârak Hetu & references related to Yonivyâpad was compiled from classical Âyurvedic texts.
- All the compiled Hetus were scrutinized and their role in the manifestation of Samprâpti was studied.

B. Survey study

- Examination of 100 prediagnosed PCOS patients with subjective & objective parameters in case paper was done.
- After observations of clinical data of 100 patients, all Hetu & Lakœana were analysed.
- The most dominating aetiological factors & most significant Doœaj Hetu responsible for PCOS were noted.
- Its statistical analysis was done according to significance of Hetu & Lakœan.

INCLUSION :

- Females between the age group 15 to 40yr.
- Examination of 100 prediagnosed patients of PCOS with USG.
- Female patients were included irrespective of their marital status like married/unmarried/widow.

EXCLUSION :

- Pregnancy with PCOS.
- Patients with malignancy of reproductive organs were excluded.

SURVEY STUDY

Survey study was carried out on the basis of detail history in patients of PCOS regarding the causative factors like Tridoúa Duúti which are mentioned in texts and other factors such as heredity, lifestyle, stress etc. to design the Nidânpancak of PCOS.

DISCUSSION OF SURVEY STUDY

From the above survey it was observed that there were no patients found with Ekadoœaja Duœti. The Causes and symptoms are always present in combination of Dvidoœa & Tridoœa.

Doœa-Duœeti	Hetu	Lakœana
Vâta-Pittaj	23%	23%
Vâta-Kaphaj	57%	57%
Pitta-Kaphaj	3%	2%
Vâta-Pitta-Kaphaj	17%	18%

1) Vâtaja Duúti

- In Vâta there are two prominent Hetus which are responsible for vitiation of Vâta those are Âhâraj & Vihâraj. Whereas Âhâraj includes Rukúâna Sevan which was found in 96% of patients those are having food habits like dry food items, fast food, bread & bakery products etc.
- In Vihâraja Hetu, Rajaswalâ Aparicaryâ is the most significant cause found in all patients. Whereas Ratrijâgran, Yânâyân, Ativyâyâm also causes Duúti of Vyân & Apân Vâyú which are the main entity of Ârtava Vaha Srotas.

2) Pitaja Duçeti

- In Pitta Duúti Hetu, 94% of patients are habituated to have Vidâhi Âhâr like fermented food, spicy-oily food, junk food etc.
- Because of the improper diet regime Agni gets vitiated resulting in Ârtava Duúti.
- On the other hand vitiated Pitta elevates Sârvadehika Uúma resulting in variety of symptoms found in patients like Amlapitta, Uúmâdhikya etc.

3) Kaphaja Duçeti :

In Kapha Duúti Hetu, 80% patients were habituated to Abhiúyandi Âhâr like Atimadhur Âhâr, curd, chees etc and amongst Vihârajanya Hetu Avyâyâm, Divâswâpa, Atiâsana etc were prominently seen, as these Hetus vitiate Kapha which give rise to Medo V^oddhi showing variety of symptoms like Sthaulya, Gaurav, Âlasya etc

4) Heredity :

History of having hereditary gynaecological disorders i.e. Kulaj which seems to be a causative factor in 41% of patients. As these patients have mother with irregular menstruation, hypothyroidism, D.M., fibroids, repeated miscarriages etc. this results to Vik^oti in further generation.

5) Mânas Hetu :

Mental stress is seen in 100% of patients out of which Viúâda is observed in 90% of patients which leads to Tridoúâ Duúti & Agni Duúti.

Viúâda is the foremost factor to worsen the disease condition. The Hçnastva individuals are more prone to Viúâda Avasthâ. Krodha, Chintâ leads to Raja & Tamo Duúti. It can be considered as Aticintâ as well as Acintâ, as both have roles to play in the creation of PCOS.

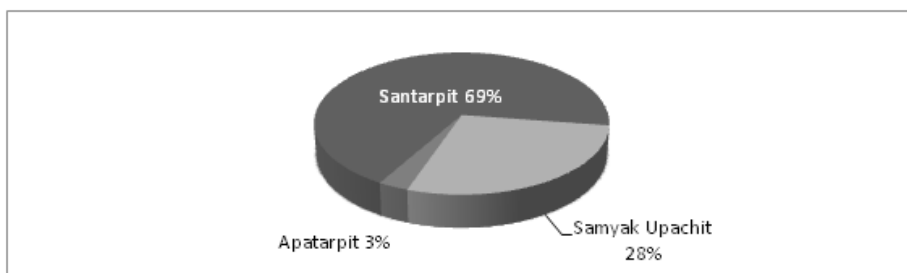
6) Hormonal Interference:

Found in 88% of patients which is predominating cause in disease development. As these hormonal replacement therapy & OC pills have long term side effects on body.

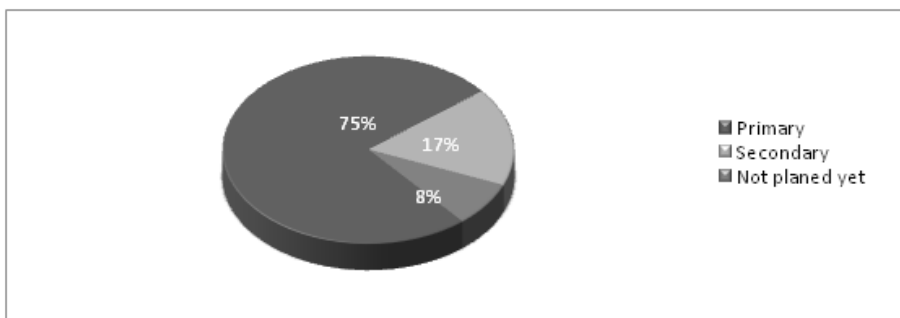
Oral contraceptives (birth-control pills) are used to prevent pregnancy. Combinations of oestrogen and progestin work by preventing ovulation results as anovulatory cycles shows side effects like hormonal disturbance, secondary infertility etc. Hormone replacement therapy i.e. HRT is taken by married patients as a treatment for infertility. Which creates side effects like Abnormal vaginal bleeding, uterine cancer.

7) BMI :

According to the above equation BMI was evaluated and patients were categorised into 3 groups i.e. Santarpit, Apatarpit & Samyak Upachita. Whereas Santarpit i.e. overweight & obese are 69%, Apatarpit i.e. underweight are 3% and Samyak upachit i.e. normal BMI are of 28%.



8) **Infertility** : As reflect in women with PCOS having irregularity in menses, Anovulation which ultimately results in Infertility. As reflected in survey that out of 65 married patients 75% patients were found to be of Primary infertility 17% patients were found to be of secondary infertility. This shows that in present study PCOS is major cause of infertility.



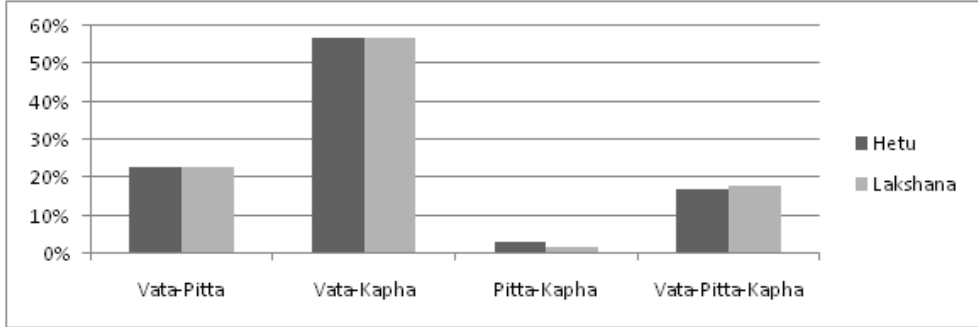
Statistical Analysis: In this survey study patients were categorised in seven groups as per their Hetu & Lakshan. I.e. Vâta, Pitta, Kapha, Vâta-Pitta, Vâta-Kapha, Pitta-Kapha & Tridoúaja

- As there were no patients found with Ekadoúaj Duúti, i.e. Vâtaj Pittaj & Kaphaj so the number of patients in this group was zero which was insignificant so these groups were excluded.
- The remaining four groups were statistically analysed using chi square test. As a result

of chi square test the data was significant at p value of 0.001.

- As there was 57% occurrence from Vâta-kapha group, so it can be concluded that this category of Hetu & Lakúan is significant.

Graph showing significance of Doshaj Hetu & Lakœan



NIDÂNPAŒAKA OF PCOS

As PCOS is Anukta Vyâdhi, its Nidânpancaka is not found in Samhitâs. But according to the Hetu found in literary study and survey study they were combined & an effort was done to establish Nidânpancaka of PCOS.

1. NIDÂNÂ :

The hetu of Vimshati Yonivyâpad stated by Âcârya Caraka was considered as Hetu of Ârtava Duúti. i.e PCOD

Considering description of classics, following aetiological factors emerge out

Nidâna has been classified under following points

- Âharaj Hetu
- Vihâraj Hetu
- Mânsika Hetu

The above Hetus were classified according to Vâta, Pitta & Kapha

RAJASWALÂ PARICARYÂ

The most classical way to avoid all gynaecological problems is Rajaswalâ Paricaryâ. Âcârya has elaborated the behaviour or regime to be followed by Rajaswala. Due to changing lifestyle and westernisation, misleading sanitary napkin advertisements on the media or due to ignorance about its importance, the Rajaswalâ Paricaryâ is not being commonly followed these days. During Rajaswala period activities that increases Vâta i.e.

Such things can increase Vâta Doúa leading to Garbhâúaya & Tryâvartâ Yoni. Increased Vâyu may hamper normal process of Ârtava Nirmiti and Niúkramana in due course of time.

ABHIGHÂTAJA HETU

This condition is described by Âcârya Suúta in clinical features of Vedha of Ârtava Vaha Srotas. Vedha means to get injury or trauma. So any type of injury or trauma to Artava vaha srotas i.e. MTP, D & C, Laparoscopy, Ovarian drilling etc lead to Ârtava Nâúa ultimately resulting in PCOS.

MÂNASIK HETU :

This reference shows direct relationship between Mana & Œukra, so due to stress worries, Tridoœa & Agni Duœeti occure which creates various diseases.

KULAJ HETU :

It is an important factor responsible for PCOS. When a young woman of child bearing age consume Doúa Duútikar Âhâr Vihâr, development of her Ârtava get hampered, such vitiated Ârtva may transmitted this Doúa Duúti in Ârtava of her progeny, as stated by Âcârya Caraka

2. **PURVARŪPA** : As this is Anukta Vyâdhi & its PurvarŪp neither mentioned in Âyurvedic texts nor in modern science. According to guideline i.e. PurvarŪpa are traced from history.

3. RŪPA

The vitiated Dosha hampers the normal physiology in two level Sârvadehika & Sthânic. Sârvadehika Doúa Duúti Lakúana in which as per the involvement of Doúa, symptoms varies from person to person.

Table showing Lakœana of PCOS: (Trividha PCOS)

Dosa	Sthânika Lakúana	Sârvadehika Lakúana	Mânsika Lakúana
Vâtaj	<ul style="list-style-type: none"> ➤ Aniyamita Rajasrâva ➤ Alpârtava ➤ Ârtava Kúaya ➤ Bçjopaghât 	<ul style="list-style-type: none"> ➤ Malâvaúambha ➤ Udarúúla ➤ Adhamân ➤ Daurbalya ➤ Angamarda ➤ Œiraœeula ➤ Nidrâlpat 	Chintâ Bhaya Viúád
Pittaj	<ul style="list-style-type: none"> ➤ Pradar ➤ Alpârtava 	<ul style="list-style-type: none"> ➤ Amlapitta ➤ Uúmâdhikya ➤ Dâha ➤ Mutradâha ➤ Atisweda 	Krodha

Kaphaj	<ul style="list-style-type: none"> ➤ Bçja Granthi Sotha ➤ Ârtavakúaya ➤ Swetapradar 	<ul style="list-style-type: none"> ➤ Sthaulya ➤ Apakti ➤ Gaurava ➤ Âlasya ➤ Aopha 	Soka
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STAKRIYÂKÂLA OF PCOS

According to the guideline, specific features of aetiological factors, Doúa and Dhátu determine the bodily immunity or susceptibility to the manifestation of a disease.

i. SANCAYA :

The prolonged Nidâna Sevana of Guru, Snigdhâdi P^othvi & Âpa Mahâbhûta guòa dominant Âhâra, Vidâhi, Rukúa Âhâra and Rajaswalâ Aparicaryâ, Avyâyâmâdi Vihâra and Cintâ, Úokâdi Mânas Hetu leads to Doúa Duúya Vik^oti i.e. Rasâ-Ârtava Duúti (Imbalance in normal Bhautika configuration of Ârtava Vaha Srotas)

ii. PRAKOPA :

Indicates the Anukûlatva between Nidâna, Do^oa and Du^oya i.e. these three factors are going to combine together in such a specific way that they lead to Prakopa. In the first two stages of ^aatakriyâkâla, the Anukûlatva between Nidâna and Do^oa occurs. This type of proneness in early age may be seen in person having genetic predisposition for PCOS, Prameha or cystic tendency.

iii. PRASARA : In this stage, the provoked Vâyú & Kapha gets spread all over the body and Tryâvarta Yoni showing Úarçra Úaithilya & Gauravata. Due to continue Nidâna Sevan viz. Yânâyân, Avyâyâm, Sthânika Apâna gets vitiated which interrupt in Bhautika property of Kapha leads to menstrual irregularity.

iv. STHÂNA SAMÚRAYA :

Due to Nidâna Sevan viz. Avyâyâm, Kaphakar Âhâr Vihâra it causes Avarodha in the path of Vâyú, at the same time there is already vitiated Vâyú by self causes i.e. Kha-Vaigunya. Due to Kaphâvarodha vitiated Vâyú get vitiate again by Margâvarodha, it starts accumulating in ovary hampering its normal function. On the contrary if there is Pitta Vik^oti/V^oddhi along with that Agni Mâhâbhuta and Vâyú Mâhâbhuta gets vitiated which desiccate the Âpyânúa from Kapha leads to Kharatva in Ovary resulting into cyst formation. In this stage, premonitory symptoms of the disease are manifested, so for the good prognosis it is essential to manage the disease in Sthâna Samúraya stage itself.

v. VYAKTA :

In this stage, there are two types of manifestation – Sthânika and Sârvadehika by which dominant Doúa can be evaluated. Due to Avarodhajanya Samprâpti and continue Nidâna Sevan, Duúya which are accumulated in Tryâvartyâ Yoni hampers follicular maturation by

Sthânic Agni Mândya, Bîja Granthi Úhótha due to Kapha Vâtaja Duúti and menstrual irregularity due to Apâna Vâyú Vik^oti. Whereas according to Douádhikya and Douája Prak^oti, Sârvadehika Lakúana varies from person to person.

vi. BHEDA :

The Samprâpti further leads to Bheda stage after Vyakta stage if proper treatment is not given in proper time. In this stage Upadrava may manifest leading to incurability of disease. Likewise chronic stage of PCOD may triggers into the complications viz. Infertility, Endometrial cancer, Cardio vascular disease etc. and these may considered as Upadrava.

4. SAMPRÂPTI

The causative factors that are responsible for the genesis of PCOS are as follows

The genesis of the disease by the vitiated Douás which are constantly circulating is known as Samprâpti. According to the involvement of Douá Dhâtu and Lakúanas found in patient's pathogenesis of PCOS can be designed.

In the concept of Ârtavanâúa both Suú^ota and Vâgbhatta has described that both Vâta and Kapha when aggravated, obstruct the path, thus Ârtava is destroyed. Though Ârtava is not finished completely however it is not discharged monthly. Here we can take both amenorrhoea and anovulation. Though both Vâta and Kapha Douá in a normal state are caused for ovulation but any abnormality hamper the normal function. The Ârtava Vaha Srotas is obstructed by the Kapha and Vâta due to which Ârtava is not visible. It is also a Sanga Pradhâna Vikâra.

5. LINE OF TREATMENT (Samprapti Bhanga)

Samrâpti Bhanga followed by line of treatment.

1) Nidânaparivarjana :

Nidâna Parivarjana is also the base of the management of all disorders.

2) Samaodhana

Vaman is suggested to reduce Kaphaj Srotorodh & Kleda. Basti Cikitsâ is suggested to cure the vitiation of Vâta Douá in Apâna Kúetra. Uttarbasti for Sthânika Vâta Úamana and Garbhâúaya Úodhana, which is suggested to give in all Yoniroga.

3) Samana :

In Shaman Cikitsâ According to Aútânga H^odaya (U.T.34/61 tika) as per Bçjopakrama to increase the potency of Ârtava Siddha Taila, Pittala Dravyas and Mâúa, Kulattha etc Upakrama should be used.

4) Úirodhâra :

In Bâhya Cikitsâ Úirodhârâ by using Takradhâra or Siddha Tail is helpful in reducing stress & mental stability.

5) Yoga :

Certain Yogic exercises like Sarvângâsana, Matsyâsana, Ardhmatsyendrâsana, Paschimottânâsana, Surya namaskar etc.

CONCLUSION

- ❖ 'Ati Santarpana' and 'Apatarpana' are two decisive causative factors for Rasa Duúti, Ârtava Duúti pursued by PCOS.
- ❖ In present study 'Ati Santarpana' was observed as decisive causative factors of PCOS.
- ❖ Another decisive causative factor of PCOS is genetic deformity carried out due to Upatapta Mâtruj Bçja.
- ❖ Rajaswalâ Aparicaryâ & stress are the substantial etiological factors causing obliteration in female reproductive system.
- ❖ No literary evidence was found concurrent to PCOS in classics but through Ayurvedic literature study & survey study it was revealed that, Vâta & Pitta are responsible for development and maturation of Ârtava whereas Kapha is responsible for Nourishment of Ârtava.
- ❖ Tridoúá Vik°ti, Rasa, Rakta Duúti are invariably associated with PCOS. For this vitiation incompatible diet and lifestyle modifications (Âhâra-Vihâraj Hetu) are responsible.
- ❖ Úodhana, Âmapâcana, Agnivardhana and Vâtânulomana, these are the probable line of treatment by which PCOS can be ruled out permanently.
- ❖ This Úuddha Cikitsâ can be challenging answer other than hormonal treatment for contemporary Anukta Vyâdhi 'PCOS'.

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Review :

Review Of Functions Of Vyana Vayu

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ABSTRACT :

Our body is composed of Dosha,Dhatu and Mala. Out of three Dosha,Vata Dosha motivates other Dosha. Vata Dosha is also responsible for body metabolism and activities of other body components.

Praana,Vyana,Udaana,Samaana,Apaana are types of Vata Dosha and each one has specific function. In this study efforts are taken to explain Vyana Vayu functions and exact physiology behind each action and also diseases due to abnormal function of Vyana Vayu which are explained in Ashtanghridayam. Hence study will be definitely useful to understand pathogenesis related to some major diseases.

KEY WORDS :- Vyana Vayu functions, Diseases due to abnormal function of Vyana Vayu.

Total Number Of References :- 18.

INTRODUCTION

Though, Pakwaashaya is the prime location of Vata Dosha,each type of Vata Dosha has its specific location and it mainly controls body mechanism related to that location. Hridaya (Heart) is the prime location of Vyana Vayu and it moves all over the body. As Vyana Vayu traverse at the micro level of body constituents , it is called as 'Krutsnadehachari6'. Movement of Vyana Vayu in body is very quick and fast, so it is called as 'Mahajava'6 The functions of Vyana Vayu which are mentioned in Bruhatrayi, (Ayurved Compendia) are as follow:-

Table No. - 1

Vyana Vayu Functions	Charak Samhita	Sushrut Samhita	Ashtanghridaya	Ashtangsangraha
Gati ^{2,6,7}				
Aakunchan ^{2,4,7}				
Prasaran ^{2,4,7}				
Unmesh ^{2,6,7}				
Nimesh ^{2,6,7}				

Rasavikshepan ^{1,3}				
Vinaman ⁴				
Unnaman ⁴				
Tiryak Gaman ⁴				
Utkshepan ⁶				
Sweda Sravan ^{4,7}				
Asruk Sravan ^{4,7}				
Jrumbha ⁷				
Annaswad ⁷				
Strotovishodhan ⁷				
YoniShukra - Pratipadan ⁷				
Kitta-Sara Vibhajan ⁷				
Dhatu Tarpan ⁷				

- 1) Rasa-Rakta Samvahana – Circulation of Rasa & Rakta(whole blood) and other essential nutrients through heart to all over body.
- 2) Aakunchana – Flexion
- 3) Prasarana - Extension
- 4) Vinamana– Downward movement.
- 5) Unnamana – upward movement.
- 6) Tiryak gamana – lateral movements.
- 7) Swed sravana- sweat excretion.
- 8) Asruk sravana – blood oozing (after dilatation of blood vessel)
- 9) Yoni-shukra Pratipaadana.- emission and ejaculation of Shukra.
- 10) Srotovishodhana- cleansing of Strotasa.
- 11) Jrumbha- yawning
- 12) Annaswada- Taste sensation(gestation).
- 13) Dhatu Tarpana- Providing nutrition to Sharir Dhatu.
- 14) Sara Kitta Vibhajana:- sorting between essential nutrients and waste products .

Following diseases are due to deranged functions of Vyana Vayu⁸.

Punsatvopaghaata, Jwara, Kushtha, Visarpa, Sarwanga - rog, Shopha, Suptata, Chittautplawa, Balabhransha etc.

Aim :-

To study functions of Vyana Vayu mentioned in Bruhatrayi.

Objectives :-

- 1) To collect all references of Vyana Vayu functions from Bruhatrayi .
- 2) To study functions Vyana Vayu and detailed physiology behind it.
- 3) To explain pathogenesis of some diseases due to abnormal functions of Vyana Vayu.

Materials and Method :-

Explanation of Vyana Vayu functions.

1)Gati^{1,6,7}- Locomotion

'Gati' means locomotion or movements or flow. Walking, running etc are examples of locomotion while flexion extension are examples of movement. Flow of body fluids from one place to another is called 'Samvahana'(circulation). All these three types of Gati are controlled by Vyana Vayu. Flexion ,extension ,walking etc are voluntary type of Gati, while circulation(Samvahana)of Rasa,Rakta and other body fluids are involuntary type of Gati which are regulated by Vyana Vayu. To carry out voluntary type of Gati (flexion, extension etc.) external stimulus is needed. Vyana Vayu generates ,accelerates and maintains Gati of all body parts and also fluids.

2) Rasa- Rakta Vikshepana^{1,3}- (Circulation of whole blood through heart to supply nutrients). As previously mentioned Gati of vyana vayu is responsible to circulate blood as well as nutrients to whole body. Vyana Vayu control pumping action of heart, due to which blood is pumped out in large out in large arteries and ultimately blood flows in capillaries under certain pressure. Purpose of normal blood pressure is to provide oxygen and nutrients to every cell, hence balanced state of Vyana Vayu is the most important condition to maintain Rasa Rakta Vikshepan. Here, not only oxygen and nutrients are supplied but also hormones and other solutes are distributed to the cell, and at the same time carbon dioxide and cellular waste products are removed.

3) Aakunchana - Prasarana^{1,4,7} - (Flexion and Extension)

Aakunchana and Prasarana means flexion and extension respectively. Here adduction, abduction, pronation and other movements should be taken into consideration. Flexion and Extension are movements of limbs due to which person can move their limbs. All the movements of limbs are controlled by Vyana Vayu.

Abnormality of Vyan Vayu results in Sarvanga Roga. Critic Indu explains Sarvanga Roga as

Ubhay Pakshavadha (Quadriplegia). According to modern medicine, quadriplegia or hemiplegia are symptoms of stroke or cerebro vascular accident in which muscles get paralyzed. Reason of Cerebro Vascular accident is either less blood flow (ischemia) to brain or brain hemorrhage due to uncontrolled hypertension. Vyan Vayu controls blood pressure so vitiated Vyan Vayu results in hypertension which can result in cerebral hemorrhage and paralysis. Cerebral ischemia is also caused due to vitiation of Vyana Vayu which can also result in stroke and paralysis¹³.

Movements of limbs, such as Aakunchana, Prasarana (Flexion & Extension) etc are eventually controlled by Vyana Vayu by supplying nutrients to muscles. Hence Gati – Aakunchana Prasaran and blood circulation are interdependent functions controlled by Vyana Vayu.

4) Yoni – Shukra Pratipaadana⁷ – (Emission and Ejaculation of Shukra) Male sexual act consist of following three stages¹⁰: -

- a) Erection
- b) Emission
- c) Ejaculation

Erection and emission is controlled by Vyana Vayu, while ejaculation is controlled by Apana Vayu. Failure of erection would fail in the emission and ejaculation. During penile erection, arterial blood flows rapidly in large cavernous sinus of erectile tissue of corpus cavernous and corpus spongiosum.

Process of filling of cavernous sinus under high pressure is controlled by Vyana Vayu. With these references, it can be said that, ultimately Rasa Vikshepana function of Vyana Vayu is responsible for erection.

Punsatvaghat (impotency due to failure of erection) is one of the deranged function of Vyana Vayu⁸.

4) Sweda Sravan⁷ - (Excretion of Sweat)

Normal temperature of human body is maintained by transferring body heat to surrounding environment. Sweating (Sweada Sravana), helps body to lose excess heat. In fever, body temperature crosses normal limit. Whenever body temperature get increased, body tends to lose heat by following mechanisms¹⁴ :-

- a) Vasodilatation- In almost all areas of body, skin blood vessels become intensely dilated.
- b) Sweating- Increase in body temperature causes enough sweating to remove 10 times the basal rate of body heat production.

After considering temperature regulation mechanism from modern point of view, it can be said that vasodilatation, blood circulation which controls sweating are under control of Vyana Vayu. Hence sweating (Sweada Sravan) comes under control of Vyana Vayu.

Deranged function of Vyana Vayu leads to Jwara Vyadhi⁸(Pyrexia) which leads to obstruction of swedavaha Srotasa (channels conducting sweat) results in increase body temperature.

5) Asruk Sravana⁷ - (Diffusion of Blood)

Sravana means to flow or diffusion or percolation¹¹. Flow of blood from arteries arterioles - capillaries can be termed as Asruk Sravana. Diffusion of Oxygen & nutrients from capillaries and removal of Carbon Dioxide, cellular wastes from veins is nothing but Asruk Sravana.

Vyana Vayu controls Asruk Sravana by the process of vasoconstriction or vasodilatation.

Vyana Vayu controls local and systemic blood flow as per demand of tissue, by constriction or dilatation of local blood capillaries.

For example, during exercise, following three major effects occur that are essential for the circulatory system to supply the tremendous blood flow required by the muscles¹⁵.

- a) Mass discharge of the sympathetic nervous system throughout the body with consequent stimulatory effects on the entire circulation.
- b) Increase in arterial pressure.
- c) Increase in cardiac output.

During muscle exercise, due to increased demand of Oxygen and glucose, cardiac output increases. Blood pressure also increases due to high cardiac output and at the same time vasodilatation of blood vessels in the muscles occurs. Due to vasodilatation more Oxygen and glucose diffuses (Asruk Sravana) in muscles. Hence Asruk Sravana and Rasa Rakta Vikshepana are interdependent functions of Vyana Vayu.

6) Annswada⁷ - (Gestation)

Gustation (Taste sensation) is the function of Vyana Vayu. Any condition in which taste sensation is reduced, deranged state of Vyana Vayu should be incorporated in pathogenesis of particular condition. Physiology of Annswada can be strictly explained only on Ayurvedic basis.

7) Srotovishodhan⁷ - (Cleansing of Conducting Channels)

This function of Vyana Vayu can be explained with the help of following example. Before Panchakarma, Snehana and Swedana are carried out as a Poorvakarma¹⁷. Intention of Poorvakarma is Malashaithilya (removing vitiated Dosha from specific part) and diverting it from periphery to G.I. tract. Prior to Panchakarma, oil massage and steam is given to the patient.

Snehana helps in mobilization of Dosha into G.I. tract from where it would be easy to eliminate them during Panchakarma. Swedana also helps in mobilizing Dosha in to gastrointestinal tract. Due to steaming, blood vessels get dilated and imbalanced Dosha to be balanced get directed towards G.I. tract. Hence it can be said that Stroto Vishodhana, Sweada Sravana,

Asruk Sravana are interdependent functions which are specially observed in the process of Poorvakarma.

8) Jrumbha⁷ - (Yawning)

Yawning is a altered type of respiration in which more oxygen is inhaled by mouth and it is transported immediately to brain, to remove fatigue. Along with inspiration Jrumbha is also indirectly related with circulation.

9) Dhatu Tarpana⁷ - (Providing nutrition to tissue)

To provide oxygen and nutrients to all Dhatu is called as Dhatutarpana. It also depends upon Rasa Rakta Vikshepana, due to which Rasa Rakta is forcefully circulated at micro level of body. Blood pressure is maximum in large arteries and is gradually decreases as blood flows in arterioles. When blood flows from arterioles into capillaries, arterioles dilates and blood flow increases for diffusion of Oxygen and nutrients & to remove cellular wastes, certain force and pressure at which Rasa & Rakta are circulated in the body is nothing but blood pressure which is controlled by Vyana Vayu. Hence Dhatutarpan ultimately depends on Vyana Vayu.

Rasa Rakta Vikshepana(Circulation)



Asruk Sravana (Diffusion)



Dhatutarpana (Oxygenation and Nutrition of tissue)

In long term hypertension , due to increased peripheral resistance, Dhatutarpana is disturbed, and Dhatu do not receive enough nutrients.

10) Sara Kitta Vibhajana⁷ - (Segregation of digested waste products)

It is a segregation of digested part of food from Kitta(waste product) which takes place in small intestine. This can be explained by understanding functional hyperemia¹⁸. Functional hyperemia means increase in blood flow immediately after food intake. Process of digestion is nothing but cellular activity which requires energy. For providing such energy to the G.I. tract, blood supply towards G.I. tract increases. From Ayurvedic perspective it can be said that, for digestion to occur, Vyana Vayu supports Pachak Pitta by increasing blood flow towards G.I. tract. This mechanism is already explained under function of Asruk Sravana.

DISCUSSION :-

Vyanaa Vayu a important type of Vata Dosha which controls almost all vital physiological activities by maintaining blood circulation. Charak, Sushrut and Vagbhata have explained different functions of Vyanaa Vayu. Additions of new functions like Asruk Sravan and Sweada Sravana enumerated in Sushrut Samhita while Yoni Shukra Pratipadana , Sroto Vishodhana, Jrumbha, Annaswada, Dhatu Tarpana and Sara-Kitta Vibhajana are added by Ashtang Sangraha.

Additions of functions of Vyana Vayu indicates existence of systematic research carried out by Charak, Sushruta and Vagbhata for clinical enrichment of Ayurvedic science. Vyana Vayu circulates in entire body. Rasa Rakta Vikshepan is the vital function of Vyana Vayu because directly or indirectly all other functions of Vyana Vayu depends on Rasa Rakta Vikshepana. Gati, Yoni-shukra-pratipadana, Swedasravan, Asruksravan, Srotovishodhan all these functions are ultimately controlled by Rasa Rakta Vikshepan. Functions which are controlled by Vyana Vayu require vasoconstriction or vasodilatation. Specific pressure which is required for maintaining blood flow is regulated by Vyana Vayu. In Yoni –Shukra Pratipadana function, specific pressure of blood must be created in cavernous sinuses for erectile function. In Sweda Sravana also, increase in rate of blood flow leads to sweating. For Asruksravana function, dilatation of blood vessels is expected. In Srotovishodhana, vitiated Dosha are removed by Sweda Sravana which ultimately depends on Rasa Rakta Vikshepana.

Table No.- 2

Vyana Vayu Functions	Interpretation
1) Rasa Rakta Vikshepana	Circulation of whole blood and nutrients.
2) Gati	Acceleration and stimulation to any type of movement in body and locomotion.
3) Asruk Sravana	Diffusion or percolation of blood by dilatation of blood vessels.
4) Sweada Sravan	Increase in sweat production due to increase in rate of blood flow to skin.
5) Yoni Shukra Pratipadana	Increase in blood flow in cavernous sinuous for erectile function
6) Sroto Vishodhana	Removal of vitiated Dosha from body by Snehan and Swedan
7) Jrumbha	More circulation of oxygen to the brain after inhalation of it.
8) Annaswada	Taste sensation
9) Sara Kaitta Vibhajan	Segregation of digested part of food from intestine from Kitta(waste product)
10) Dhatu Tarpana	Providing oxygen and other nutrients to the body up to tissue level.

CONCLUSION :-

Vyana Vayu is a type of Vata Dosha which executes functions of all other types of Vata Dosha. Out of all functions of Vyana Vayu, Rasa Rakta Vikshepan (circulation of Rasa and Rakta dhatu) is the most important function. Vyana Vayu not only controls blood circulation but also local blood flow to the tissue.

Blood pressure regulating factors such as cardiac output, peripheral resistance, heart rate are controlled by Vyana Vayu. According to modern medicine, blood pressure, vasoconstriction,

vasodilatation, sweating, blood flow to tissue are controlled by Autonomic Nervous system. So up to some extent, functions of Vyana Vayu can be correlated with Autonomic Nervous System.

To maintain homeostasis, it is important to maintain Rasa Rakta Vikshepana within normal state. Regular practice of Yoga, meditation and Pranayama is the best way to control blood pressure. As these practices facilitates blood circulation, enhances local blood flow to the tissue and helps to maintain homeostasis.

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Review :

Conceptual Study of the Effect of Guduchi-Amalaki Kashay on Serum Bilirubin level in Early Neonatal age

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ABSTRACT :-

As we know that, India is a developing country in world but also neonatal mortality rate is 45 per 1000 live birth; it shows that more attention should be given to Kaumarbhritya.

Neonatal hyperbilirubinemia is kind of entity which is seen in approx.60% of in term infant and 80% of in preterm infant in their early neonatal age. Aim is to assess the effect of Guduchi-Amalaki Kashay on serum bilirubin level in early Neonatal age. Objectives are to analyze decreases the level of serum bilirubin level according to age and maturity. All the references regarding to hyperbilirubinemia; navajat kamala are collected from Laghutrai ,Bhruttrai and Kashyap samhita and Nelson textbook of pediatric and compilation is done.

Kamala is vyadhi of Raktvaha Strotas having mainly Pitta and Rakta dushti. Increasing bilirubin level causes are ;Stagnation of meconium in gut for long time, it increase the enterohepatic recirculation after deconjugation by intestinal beta glucuronidase. And increased RBC volume & decrease survival of RBC (90days) in infant, immaturity of liver. So, here, RaktaPittaghna, Rasayan, Kamalahar and Anuloman properties of Guduchi and Amalaki combination can reduce serum bilirubin level. We can discuss serum bilirubin level are decreases by using Guduchi –Amalaki kashay .we can conclude that, Guduchi –Amalaki kashay used for decrease serum bilirubin as well as prevention of hyperbilirubinemia i.e.

Navjat kamala (No of References -8).

Key words :

Hyperbilirubinemia;Navjatshishu kamala: Guduchi-Amalaki

INDRODUCTION :-

. Paediatric care should start from the stage of conception and should be planned that not only the fetus attains optimum growth and development in intrauterine life but he is born as a healthy neonate with its own individual characteristics and potentialities.

Hyperbilirubinemia is nothing but yellowish discolouration of skin, sclera and mucous membrane. Hyperbilirubinemia as correlated with kamala vyadhi Here, we consider Physiological Hyperbilirubinemia. In Ayurveda, Acharya Kashyapa mention the symptom of

Kamala Vyadhi in Vedana Adhyaya in Sutrasthan of Kashyp Samhita but causes and treatment are not mentioned.

Now a days, treatment of hyperbilirubinemia is Phototherapy ,exchange transfusion but these treatments have hazardous complications. Such type of condition can be better preventable & treatable by using Rasayan, Kamalahar, Raktapittaghna and Anuloman and Malavsthambh properties of Guduchi –Amalaki combination. So, charakacharya has also advised Virechan is a main chikitsa in kamala vydhi.

It is proved that the increased level of Serum bilirubin in neonatal hyperbilirubinemia causes hazardous complications in neonate that is Kernicterus, Transient encephalopathy.

REVIEW OF LITURATURE :-

The information about Concept of drugs Guduchi and Amalaki on kamala vyadhi are mentioned in Ayurvedic Samhitas Granthas.

REVIEW OF DISEASE :-

In Kashyap Samhita :Sutrasthan Vedana Adhyay mentioned only Lakshana of Kamala vyadhi is only related to Balaka. But causes, samprapti and treatment are not mentioned. We can consider causes,samprapti according to modern science.

AIM :-

To study the effect of Guduchi-Amalaki Kashay on serum bilirubin level in early Neonatal age.

OBJECTIVS :-

To analyze, the decreasing the level of serum bilirubin level according to age and maturity in early neonatal age.

MATERIALS & METHODS :

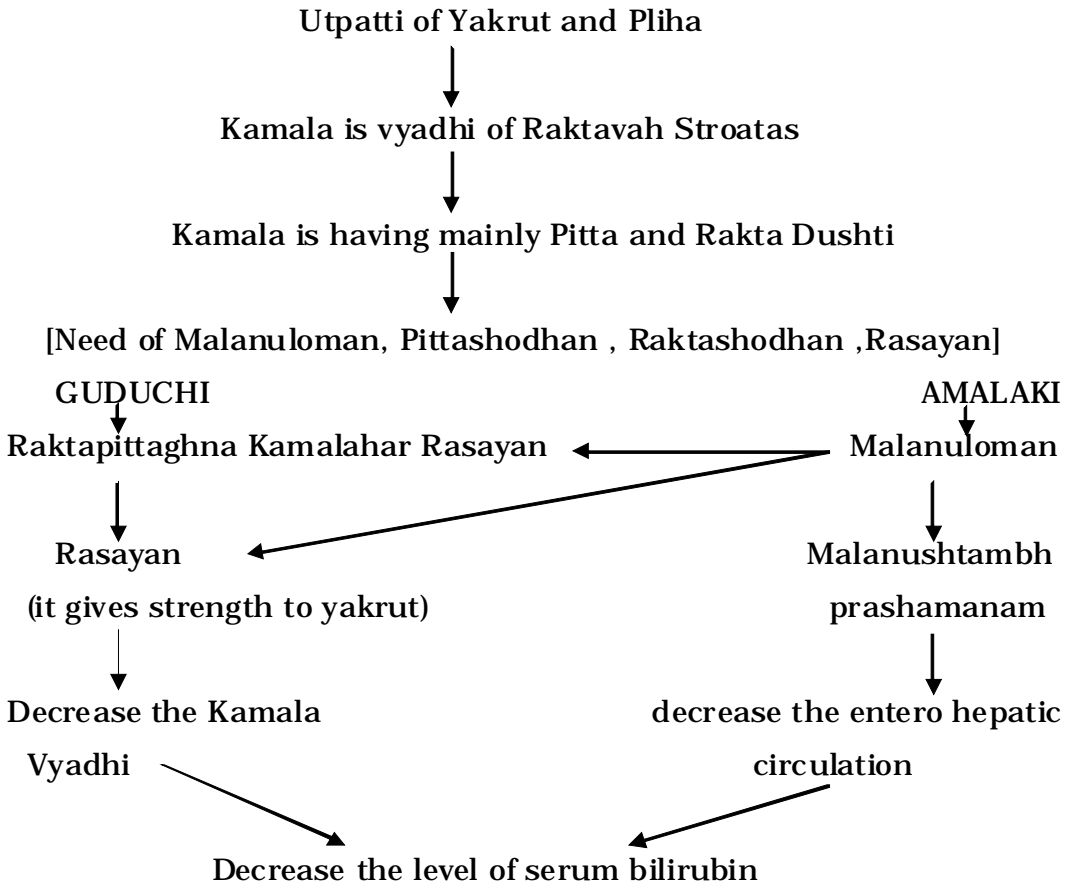
ABOUT MEDICINE :

Guduchi and Amalaki drugs having Rasayan properties. These drugs are mentioned in Lehan Adhyay;Sutrasthan in Kashyap Samhita. Also having Raktapittghna Kamalahar,Anulomak and malavstambh prashaman karma. Hence we can use these medicine in Navjat Kamala.

METHODS :-

Concept of Guduchi-Amalaki kashay in serum bilirubin level in early neonatal age. Collection of all references is done and correlation between the data is done logically i.e. by using yukti praman. (logical references).

PROBABLE MODE OF ACTION OF GUDUCHI_AMALAKI KASHAY
Raktadharkala



RESULT :-

On the basis of mentioned observations and discussions it can be concluded that Guduchi – Amalaki combination could be decreased the serum bilirubin level.

DISCUSSION :-

In neonate, serum bilirubin level assessment is very important because, It is proved that, increased level of Serum bilirubin causes hazardous complications in neonate that is Kernicterus, Transient encephalopathy.

In this present study, stagnation of meconium in gut for long time (1mg of bilirubin /1gm of

meconium). increased RBC volume & short lifespan of RBC (90days) in infant, immaturity of liver causation of physiological Hyperbilirubinemia in neonate.

In present study we can use Guduchi - Amalaki kashay. Guduchi having raktpittaghna, Kamalhar,Rasayan,properties. Amalaki having Raktapittaghna Rasayan Anuloman MALavashthambh prashaman properties.

Due to Rasayan properties it Gives strength to Yakrut and Pliha. RaktaPittaghna, Kamlahar properties decreases kamala vyadhi.

Anuloman and Malavshthambh properties decrease the stagnation of meconium in gut for long time. hence these mechanisms decrease the serum bilirubin level.

So, we can also use the Guduchi –Amalaki combination for prevention of navjat kamala (Hyperbilirubinemia).

CONCLUSION :-

- 1) Guduchi - Amalaki combination can be definitely use in hyperbilirubinemia in early neonatal age.
- 2) Guduchi - Amalaki combination can be effectively decrease of serum bilirubin level.
- 3) Guduchi - Amalaki combination can be used for prevention of Hyperbilirubinemia.

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Review :

Rasayana (rejuvenation) For Swastha – The Health Aspects

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ABSTRACT :-

“Invest in health and build safer future” - slogan of W.H.O. for the year-2007, highlights the significance of prevention of diseases and promotion of health. There are various health issues common with many people across the globe. Disease is one of the most common health concerns. According to GlobalIssues.org, approximately 36 million people die each year from non-communicable (not contagious) disease including cardiovascular disease cancer, diabetes, and chronic lung disease. Widely regarded as the oldest form of healthcare in the world, Ayurveda is an intricate medical science that exists in India since thousands of years. The aim of Ayurveda is to prevent illness, heal the sick and preserve life. Ayurveda is divided into eight branches, which are collectively called as Ashtang Ayurveda. Rasayana Chikitsa (Rejuvenation therapy) is the branch of Ayurvedic science, which deals with various aspects of preventive health care which aims at achieving a long and healthy life. To improve quality and quantum of life ‘Rasayana’ was explained in Ayurveda. It is not only indicated in the diseased but also in healthy individuals. It increases strength of body tissues, builds up resistance power and prevents the diseases. Rasayana Chikitsa literally means rejuvenation therapy. Rejuvenation is to return to youthful state or to the normal physiological condition from ill health. Entire human race has been desiring for a healthy & disease free longevity from time immortal for which Rasayana seems to be an appropriate solutions when followed by an healthy individual i.e. Swastha purusha (Healthy Individual) as per the descriptions quoted in Ayurvedic classics. (No. of references - 17).

KEYWORDS: - Rasayana (Rejuvenation), Swastha (Healthy), Swasthya (Health), Health, Ayurveda.

INTRODUCTION :-

Achieving and maintaining health is an ongoing process, formed by both the evolution of health care knowledge and practices as well as personal strategies and organized interventions for staying healthy.

“Invest in health and build safer future” - slogan of W.H.O. for the year-2007, highlights the significance of prevention of diseases and promotion of health. Health and health related issues have been at center stage with respect to protection of one self from diseased

conditions. All the health sectors are giving due importance to ideal life style and proper diet.

Widely regarded as the oldest form of healthcare in the world, Ayurveda is an intricate medical science that exists in India since thousands of years. Ayurveda aims at prevention & promoting health of healthy, if diseased to heal.

Ayurveda is a Sanskrit word that literally translates as “the wisdom of life” or “the knowledge of longevity”. In accordance with this definition, Ayurvedic medicine views health as much more than the absence of disease. The wise seers and sages of the time, intuitively understanding the physiology and workings of the mind-body-spirit long before, explained the basic principles of Ayurveda. Ayurveda is divided into eight branches, which are collectively called as Ashtang Ayurveda. Rasayana Chikitsa (Rejuvenation therapy) is the branch of Ayurvedic science, which deals with various aspects of preventive health care. In Ayurveda, one of the important methods of preservation of positive health has been described i.e. Rasayana.

The word Rasayana (rasa + ayana) refers to nutrition and its transportation in the body. The Rasayana therapy enhance the qualities of rasa, enriches it with nutrients so one can attain longevity, memory, intelligence, freedom from disorder, youthfulness, excellence of luster, complexion and voice, optimum development of physique and sense organs, mastery over phonetics and brilliance. Rasayana is a specialized type of therapy influencing the fundamental aspect of body i.e. Dhatu, Agni and Srotasa.

The benefits and applicability of Rasayana (Rejuvenation therapy) can be understood at different levels. They bring up the excellent qualities in Dhatus when employed, and there by enhances immunity.

Before entering to the topic Rasayana for Swastha- the health aspects its necessary to understand the concept of Swastha / Swasthya (health/healthy) and Swasthavritta. (Regimens)

Definition of Swasthavritta: (Healthy Regimens)

The word “Swasthavritta” is composed of three words - Swa, Sth and Vritta contains a trinity of ideas, resembling the trinity of Doshas in Ayurveda. The three words represent in themselves the joint effort of all the Doshas in the body, when working in full co-operation and co-ordination with one another. The result of this concord of Dosha is health and happiness. Swasthavritta thus helps one to attain the goal of perpetual normal health and happiness.

The regimens to be followed to attain optimum levels of health are Swasthavritta. The glory of Ayurveda lies in its evolution of theory for maintenance of health and genesis of diseases. Centuries have come and gone; the nature of disease perhaps has changed; new diseases have appeared and some of the old one is almost extinct. However, Ayurvedic theory of maintenance of health stands for all times and circumstances justifying ancient needs and catering for the future. This theory of maintenance of positive health that is “Swasthavritta”

Definition of Swastha : (Health)

Charaka Acharya has frequently used the term Prakriti, Swasthya, Sukha, Arogya, Dhatusamya as synonyms of health. Instead of defining the Swastha in Swastha chatushka, charaka acharya has defined Swastha in Nirdesha Chatuska by Nirdesa Tantrayukti as “disorder is disequilibrium of Doshas and Dhatus, and their equilibrium is health. Health is known as happiness while disorder is unhappiness”

Arogya has two syllabuses. ‘Aa’ and ‘Rogya’ the former means “till or up to” the condition; the latter openly signifies the condition that renders a man liable to be caught by diseases. Arogya or health is thus a physical condition of a being in which the body is immune to all disease.

Sushruta Acharya has defined a healthy individual as one who has :-

- Equilibrium of the Doshas i.e. Sama dosha.
- Normal functioning of Agni i.e. Sama Agni
- Normal condition of 7 Dhatus i.e. Sama Dhatu
- Normal Excretion of waste products i.e. Malkriya.
- The Atma (Soul), the Indriyas or sense organs and Mana or mind should be happy and cheerful i.e. Prasanatamendriya Mana (Su.Su.15/15).

The modern definition of health seems to be incomplete in comparison with the excellent interpretation of health described in Sushruta Samhita.

Positive Health vis-a-vis Dhatusamya :

In Charka Vimanasthana, criteria for the assessment of Dhatusamya were explained. This includes the entire feature, which is necessary to achieve positive health.

Biologically, positive health is a state, in which every cell and every organ is functioning at its optimum capacity and in perfect harmony with the rest of the body. It is represented by Samadosha, Samagni, Samadhatu malakriya.

Its criteria can be summarized as

- Normalcy of voice and complexion
- Increase in strength
- Desire for food
- Relish the meal time
- Timely evacuation of flatus, urine feces
- Proper and timely digestion of taken food

Psychologically, as a state in which the individual feels a sense of a perfect well being and mastering over his environment.

Socially, as a state in which the individual feels his capacity for the participation in social systems at its optimum.

'Prasannatmendriyamana' denotes both psychological and social positive health. Criteria for assessment are:

- Timely sleep
- Non appearance of abnormal dreams
- Easy awakening
- Overall normalcy of mind, intellect and sense organs

Sushruta Acharya in Suthrasthana 15 systematically defines this, as particular sequence of explanation is reflecting Karya Karana Vada. The equilibrium state of Dosa is Karana for the Karya Samagni and its Karya is Samadhatumalakriya; in total, this results in Prasannatmendriyamana. There by achieving total health.

Characteristics of Swastha: (Healthy Individual)

Persons having proportionate musculature and compactness (Sama mamsa and Sama samhanana) of the body with strong sensory organs will overcome.

- Onslaught of diseases
- Can withstand hunger and thirst
- Can withstand heat of the sun and cold
- Can withstand physical exercises
- They can digest and assimilate the food properly.

Concept of 'Swastha' and 'Swasthya'

Ayurveda advocates multi-dimensional concept of health Absolute healthy status is a difficult proposition Ultimate aim of the life – Purushartha chatustaya. Positive health can be achieved through means of chaturvidha Purushartha.

Swastha Vs Swasthya

Swasthya-(Health) Health cannot be defined as a State Setting Universal health standard is not possible.

Swastha-(A healthy person) Process is continuous adjustment Parameters Vary with prevailing ecological Conditions.

The motive of Ayurveda is to prevent the disease and to maintain the healthy state of the

healthy individual. As directed in Swasthavritta one who follows Ayurvedic lifestyle achieves a long and healthy life. The person thus gets respectful position in the society and achieves Purushartha chatustayas. The shareera is defined as the entity which is combination of the pancha mahabhuta vikara samuha and which is samyogavahi when this shareera has the vitiated Dhatu then it starts getting rogas the vitiation starts with the either with the Vridhi or Kshaya of the Dhatu which is depicted by the organ or the human constitution.

Equilibrium of Dhatus is called as health and vitiation in the Dhatus itself is called disease condition so it is very prime factor that maintenance of Dhatu samyata.

W.H.O. definition of Health

Health is defined as a state of complete physical, mental, and social well being of a person and not the mere absence of disease or infirmity.

Who will acquire Swasthya? (Health)

The man who indulges in -

- Wholesome diet and good conduct
- Moves cautiously
- Unattached to sensual pleasure
- Donates
- Observes equality
- Truthful
- Forbearing
- Devoted to persons of authority

Thus, Swasthavritta raise the limit and standard of life; enable man to fulfill his personal and social obligations perfectly. In other words, it improves both the qualitative and quantitative aspects of not only in individual perspective but also in relation to social environment. By considering fourfold necessary and scope Charaka has dealt this in separate Chatuska known as Swastha Chatuska.

Parameters for assessment of Arogya Lakshana

The features of Arogya explained in Kashyapa Samhita.

1. Ánnabilasha (desire for food)
2. Bhuktasya paripaka (easy digestion of food)
3. Srusta vinmootratwa (excretion of feces urine and flatus)
4. Shareerasya laghavam (lightness of body)

- 5 Suprasnendriyatwa (perspicuity of indriyas)
- 6 Sukhaswapna prabodanam (comfortable sleep and awakening)
- 7 Bala varna ayushya labha (attainment of strength complexion & life)
- 8 Soumanasya (happiness)

Every individual in this world wants to live healthy for a long period. Rasayana Chikitsa i.e. Rejuvenation therapy is explained in Ayurveda for healing and regeneration of living tissues i.e. Dhatus in the body.

Rasayana (Rejuvenation therapy) is one of the eight clinical specialties of Ayurvedic classic. Rasayana is not only a drug therapy, but also specialized procedure practiced in form of rejuvenate recipes, dietary regimen and special health promoting conduct and behavior i.e., Achara-Rasayana.

“Labopayo hi Shastanam Rasadinam Rasayanam”⁵⁵

Rasayana (Rejuvenation therapy) means the way for attaining excellent Rasa i.e. one attains longevity, memory, intelligence, freedom from disorder, youthful age, excellence of luster, complexion & voice, optimum strength of physique and sense organs, successful words, respectability and brilliance.

Historical Aspects

Rasayana (Rejuvenation therapy) is described elaborately in four padas of the first chapter in Chikitsa sthana of Charka samhitha. In Sushruta samhitha the references are available in 27-29th chapter of Chikistasthana & Astanga hrudya of Vagbhata in Uttara Tantra

The effect of Rasayana (Rejuvenation therapy)

Considering the Ayurvedic concepts of physiology, Rasayana agent promotes nutrition through one of the following three modes:

- By direct enrichment of the nutritional quality of Rasa (nutritional plasma) - Shatavari, milk, ghee etc.
- By promoting nutrition through improving Agni (digestion & metabolism) - Bhallataka, Pippali etc.
- By promoting the competence of srotas (microcirculatory channels in the body)-Guggulu.

Another important factor for maintaining good health and staying active even in the old age is called as rejuvenation therapy (Rasayana Chikitsa). Therefore, a healthy person should take rejuvenating preparations to maintain good health and stay young. There are many such Ayurvedic preparations available, which can be taken according to season and personal constitution.

Good social conduct, morality, good manners and good character are some other factors,

which are necessary to stay away from diseases. Thus, Ayurveda approaches the complete individual while giving instructions about maintaining the health. Purpose of Rasayana therapy is to retard the aging process and to delay the degenerative process in the body.

- It enhances the intelligence, memory, body strength, luster of the skin, and modulation of voice
- It nourishes the blood, lymph, muscles, tissues, semen, and thus prevents chronic degenerative disorders like Arthritis.
- Improves metabolic process and quality of body tissues and eradicates diseases of old age
- Help to attain optimal physical strength and sharpness of sense organs.
- Rasayana has marked action on reproductive organs and nourishes Shukra Dhatu (semen)
- Rasayana nourishes the whole body and improves Immune system and hence the natural resistance to infection will be more.

By following Achara Rasayana, one can attain better Satva and surge ahead in the spiritual field by his pure daily routines like speaking truth, not getting angry, by having control over his sense organs and calmness. The proper and timely use of Rasayana drugs promote youthfulness, provides longevity, memory, intelligence, complexion, body glow and best physical strength as well as of senses.

All these actions of Rasayana indicate towards the fact that by undergoing this therapy, one can live a long span of youth life, full of vigor and free from diseases without the adverse effects of aging. However, such a span of life is possible only when one has a strong resistance and general immunity against the diseases. Therefore, it can postulate that Rasayana drugs may have immunity improving effect.

Need For Rasayana in Swastha (Rejuvenation therapy for healthy person)

1. Hita and sukha Ayu
2. Promotion of positive health
3. To achieve chaturvidha Purushartha
4. To avoid Akalaja jara and to delay

Acharya Sharangadhara explained the Rasayana according to the age group

Rasayana According to Age

AGE	DRAVYAS (Drugs)
1- 10 (balya)	Vacha, suvarna, kashmari
11-20(vridhhi)	Kashmari, aswagandha, bala
21-30(chhabi)	Lauha, amalaki
31-40(medha)	Shankhapushpi, jyotishmati
41-50(twak)	Somaraji, bhringaraja,
51-60(drishti)	Jyotishmati, triphala, lauha
61-70(virya)	Atmagupta, vajikara dravyas
71-80(vikram)	
81-90(buddhi)	
91-100(karmendriya)	

Rasayana are formulated with the intention of bringing back into balance one or more of the five elements, which are put out of balance from improper diet etc. In return, this promotes balance on the physical, mental and subtle levels of our being, which will add life to our years as well as years to our life.

Rasayana for Healthy Individual

Ayurveda, a life science, gave the unique concept of balanced diet under the heading of Nitya Sevaneeya Dravya (Foods that are permissible to eat on daily basis). Promotion of proper nutrition is one of the eight elements of the Primary Health Care. Though great advances are made in the last fifty years in the knowledge of nutrition & practical application, poor section of the population continued to suffer from malnutrition in spite of increase in the food production. To bring global attention towards Ayurvedic system of medicine in concern to nutritional programme and to implement & to develop more nutritional programme in our system, a great interest has to be focused on the role of dietary factors in the promotion of health.

Nitya sevaneeya Dravya's which are told in sushruta and vagbhata are indicates the need for the Rasayana for helthy individual. The list of food ingredients those are advisable to consume daily are Shashtika shali (unpolished rice), Godhuma (wheat), Yava (barley), Mudga (green gram), Pathya (), Amalaki (Indian gooseberry), Mridwika (dry grapes), Dadima (Pomogranate), Triphala, Patoli (snake gaurd), Madhu or Kshoudra (Honey), Sharkara (sugar), Sarpi (ghee), Jangala mamsa (meat of animals) , Saindhava (salt), Antariksha jala or divyodaka (pure water)

CONCLUSION

Health in Ayurveda is defined as the state of Dhatusamyā (Equilibrium of Dhatu) a balanced condition of body elements, resulting in sukha – ease and prasannatmata – sense of well-being. The only way mentioned in Ayurvedic science to maintain this balanced condition and to live a full life span of hundred years without being disturbed by diseases is through following Swasthavritta – the healthy regimens. Ayurveda signifies use of Rasayana therapy (Rejuvenation therapy) as one of its important branch, for maintenance of equilibrium of bodily constituents in healthy person. Vayasthapana the term uniquely used by Sushruta Acharya while defining Rasayana signifies a process which preserves life for hundred years. Hence looking at the present scenario's related to health & health related issues worldwide, Rasayana therapy will definitely provide an answer in fulfilling the desire of man to have a disease free, long and happy life.

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Review :

The Importance of Aahaara Maatra In Ayurveda

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ABSTRACT

Ayurveda is the life science which gives utmost importance for the maintenance of positive health. The Diet or food habit is one of the factor which helps in attaining good health and WHO accepted the concept of balanced diet which includes proper measurement of proteins, carbohydrates, nutrients and micronutrients. Ayurveda explains the Guruta (heaviness) and Laghuta (lightness) of food which have importance in achieving good health. The Laghu Aahaara Dravyas are predominant in the qualities of Vaayu and Agni Mahaabhutas. The Guru Aahaara Dravyas are predominant in the qualities of Prithvi and Jala Mahaabhuta. Because of this the Laghu Aahaara Dravyas by nature are stimulant of digestion and even if taken in excess than the required quantities are less harmful. On the other hand the Guru Aahaara Dravyas by nature suppressors of appetite and become harmful, if taken in excess quantity unless there is a strong power of digestion achieved by Vyaayaama (physical exercise). Thus the Aahaara Maatra (quantity of food) depends on the Agnibala (power of digestion). The Dravyas are formed by the combination of five Mahaabhutas. Accordingly by the presence of predominant Mahaabhuta they are classified as Paarthiva, Aapya, Taijasa, Vaayavya and Aakaashiya Dravyas.

Keywords: Guruta, Laghuta, Aahaara Maatra, Vyaayaama, Agnibala, Mahaabhutaas.

INTRODUCTION

Any substance which is to be taken or swallowed in, through the throat is called Aahaara (Shabda Kalpa Druma). The intake of food plays an important role in the proper growth of the body by supplying regular quantity of building materials, nutrients and energy for the sustenance of life. So intake of food having the balanced diet is essential for attaining good health. It is beneficial to understand the more details of proper diet explained in Ayurveda related with the availability and qualities attributed to food articles. The Aahaara Dravyas (food articles) are classified as Guru (Heavy) and Laghu (Light) as per the inherent qualities in them. By the presence of predominant Mahaabhuta (basic element) Aahaara Dravyas are classified as Paarthiva, Aapya, Taijasa, Vaayavya and Aakaashiya Dravyas¹.

Guru Guna – Dravyasya Brumhane Karmani, Shaktir Guruhu (Aruna Datta, Ashtaanga Hrudayam - Sootra Sthaanam 1/18)

Laghu Guna – Langhane Laghuhu (Aruna Datta, Ashtaanga Hrudayam - Sootra Sthaanam 1/18).

Synonyms of Aahaara: Jagadhi, Bhaktam, Bhojanam, Pratyavasanam, Abhyavahaara, Khaadanam, Nigara, Bhakshanam, Annam, Leha, Odanam, Aahaara (Shabda Kalpa Druma).

Importance of proper quantity of food :

The intake of food should be in proper quantity. The quantity of food to be taken depends upon the power of digestion, including metabolism. For the proper maintenance of positive health, one should first of all eat in proper quantity. Here eating means which includes all types of eatables which are taken by mouth².

The quantity to be eaten depends upon the power of digestion and metabolism. This applies to the eating of food and not of drugs. It does not imply the extend of exercise one should resort to. The Dosage of the drug depends upon the seriousness of the disease as well as on the strength of the patient. The extend of the exercise is to be determined on the basis of the quantity the Doshas required to be eliminated and the degree up to which the power of digestion including metabolism is to be enhanced. The food should be taken in proper quantity after the previous food is fully assimilated³.

Care should be taken so that there is no over exertion or exhaustion during the act of exercise. The power of digestion and metabolism which depends the quantity of food intake and also varies according to the season as well as the age of the individual. Thus the quantity of food to be taken depends upon a number of factors⁴.

The amount of food which without disturbing the equilibrium of Dhaatus and Doshas of the body, gets digested can be considered as the proper quantity (Maatra) of food. cha.soo.5/4 The food taken in proper quantity provides strength, complexion, happy life and gets digested in time not disturbing the normalcy⁵.

The relation of the quantity of food and the power of digestion and metabolism needs explanation. How we understand that a given amount of food is enough for a particular individual? This can be known only by correlating the food taken with its proper digestion with in a time limit. If the food taken in the evening does not disturb the equilibrium of Doshas as well as Dhaatus and gets digested and metabolised by the morning then that would be the standard measurement of food to be taken by the individual. This measurement will vary from individual to individual. No standard measurement of quantity of food can be made fixed for all individuals.

The power of digestion even of a single varies from time to time and hence there will be some variations in the standard measurement of food to be taken by him. But for many purposes, the standard measurement of food for an individual is to be determined on the basis of his digestive capacity. It is not that food that gets digested in time may not disturb the equilibrium. If does so, will be due to some inherent defects in its components, processing, etc. Even though digested in time Mandhaka (premature curd), Lakucha, etc. do disturb the equilibrium, irrespective of their quantity taken.

The measurement of food is of two types that is food as a whole and of its different ingredients having different Rasas (Tastes) like Madhura (Sweet), Amla (Sour), etc. If food as whole is taken according to the prescribed measurement but its ingredients having different Rasas like Madhura, Amla, etc. are not in prescribed ratio, the equilibrium of Dhaatus and Doshas gets definitely disturbed due to imbalance in the ratio of the composing Rasas (Tastes). Consequently the timely digestion of food as a whole will also be affected⁶.

Food items like Shaali, Shaashtika, Mudga, Common Quail, Grey Partridge Antelope, Rabbit, Wapiti, Indian Sambar, etc. even though Laghu (light) in digestion by nature are to be taken according to the prescribed measurement. Similarly preparations of Flour, Sugarcane and Milk, Tila, Maasha and Meats of Marshy and Aquatic animals (Aanoopa Mruga) even though Guru (heavy) in digestion by nature are also required to be taken in proper quantity⁷.

From this it should be concluded that the description of Guruta (heaviness) and Laghuta (lightness) carry importance. This is because the Laghu Aahaara Dravyas are predominant in the qualities of Vaayu and Agni Mahaabhutas and Guru Aahaara Dravyas are predominant in Pruthvi and Ap Mahaabhutas. According their qualities, the Laghu food articles being the stimulants of appetite and by nature are considered as less harmful even if taken in excess of the prescribed quantity. The Guru food articles being by nature suppressers of appetite are exceedingly harmful if taken in excess unless there is a strong digestive power and metabolism achieved by physical exercise. Thus the quantity of food depends upon the power of digestion including metabolism⁸.

By nature Laghu food is said to be good for attaining positive health. Guru food on the other hand is considered to be not conducive to good health. But for both the types of food if quantity is to be considered, the Laghuta and Guruta of food seem to have no implication. Thus the quantity rather than the Guruta and Laghuta of food feel important in the present context⁹.

It is not so that the proper quantity of food does not depend on the nature of food articles. If the food article is Guru, only three-fourth or half of the capacity of the stomach is to be filled up and the excessive intake of Laghu food articles is not good for the maintenance of power of digestion and metabolism.

Guidelines for conception of food :

Ayurveda explains a proper dietic regulation as Aahaara Vidhaanam and Ashta Aahaara Vishshaayatana. Aahaara may be either wholesome or unwholesome. The wholesomeness of Aahaara depends on the variation in dose, time, methods of preparation, habitat, and constitution of the body, diseases and the age of an individual. These reasons get some rules and regulations for taking the diet.

Even though an individual takes wholesome Aahaara the following dietic rules for proper digestion, assimilation and health of the body. The rules should be followed by a healthy individual as well as diseased patient are explained as Aahaara Vidhaanam. They are – Ushna, Snigdha, Maatraavat, consumed after the digestion of previously ingested food, Veerya Aviruddha Aahaara, taken in an Ishta Desha – where it is provided with Sarvopakarana, not

taken fast, not taken too slow, taken alone, taken without having talk and laugh, taken with concentration of mind and taken after giving due regard to oneself¹⁰.

The description of eight factors determining the utility of various types of food is known as Ashta Aahaara Vidha Visheshayatanani. They are Prakruti, Karana, Samyoga, Raashi, Desha, Kaala, Upayoga Samstha and Upayokta¹¹. Ashtaanga Samgraha explains seven types of Aahaara Vidhi Visheshayatanas. Vriddha Vagbhata considers Upayoga Samstha and Upayokta together and counted them as Upayoga Vyavastha.

The improper quantity (Amaatra) of intake of food :

The improper quantity of food is explained as Hinatva (Deficient) and Aadhikya (Excessive). The improper quantity causes unhealthy conditions like Vaata Roga and Aama Dosha respectively. The diseases due to Aama Dosha are Visoochika and Alasaka¹². If taken in proper quantity food will remain undigested by many psychological disturbances¹³.

Importance of food taken in proper quantity :

The food taken in proper quantity helps the individual in achieving the strength, complexion, happiness and longevity without disturbing the equilibrium of Dhaatus and Doshaas of the body¹⁴. After the consumption of food Guru food articles like Pastries, Rice, Pruthuka (Boiled and flattened Rice) should be avoided. Even when having good appetite takes Guru food articles only in proper quantity¹⁵.

Contraindicated food articles :

Guru food articles such as Vallura (Dried Meat), dry vegetables. Lotus rhizomes and lotus stalk, meat of diseased animal, Koorchika (Boiled Butter Milk), Kilaata (inspissiated milk), pork, beef, meat of Buffalo, fish, curd, Maasha and Yavaka¹⁶.

Indicated food articles :

Food articles like Shaashtika, Shaali, Mudga, Saindhava (rock salt), Aamalaka, rain water, ghee, Jaangala Maamsa (meat of animals dwelling in arid climate) and Honey¹⁷. Food articles which are conducive for maintaining good health and are capable of preventing the disease attacks should be consumed regularly¹⁸.

Balanced diet :

WHO accepted a diet similar to the dietary regulations explained by Ayurveda. A diet may be defined as the kinds of food on which a person or group lives.

A balanced diet is defined as one which contains a variety of foods, such quantities and proportions that the need for energy, amino acids, vitamins, minerals, fats, carbohydrates and other nutrients is adequately met for maintaining health, vitality and general well-being and also makes a small provision for extra nutrients to withstand short duration of leanness.

WHO recommendations on a constructive balanced diet and Dietary goals or prudent diet are daily requirement of protein as 10-15% of daily energy intake; fat requirement as 15-30% of energy intake; carbohydrates rich in natural fibre - should constitute the remaining food energy; the requirements of micronutrients should be met¹⁹.

DISCUSSION

The Dravyas are two types; they are Guru and Laghu Dravyas. The Guru Dravyas are predominant of Prithvi and Jala Mahaabhutas. The Laghu Dravya is predominant of Vayu and Agni Mahaabhutas. Hence Guru Dravya has a tendency to move downwards and Laghu Dravya to move upwards. This quality of Guru and Laghu Dravyas can be applied in treatment. The Laghu Aahaara Dravyas by nature are stimulant of digestion. The Guru Aahaara Dravyas by nature reduce the appetite. Thus the Maatra (quantity of food) depends on the Agnibala.

The Aahaara Maatra (diet) and Oushadha Maatra (dosage) are dependent to many variables. The modern research methodology insists standard dose which is practically impossible to apply in Ayurvedic perspective in fixation of Dose. The dosage of medicine in particular individually depends on these factors which are Agni (power of digestion), Bala (physical and mental strength), Vaya (age), Vyaadhibala (strength of the disease), Deshabala (environmental involvement), Koshta (understanding the condition of GIT), Satvabala (strength of mind) and Dravya (drug).

The Kaala (time factor) is also a main constraint to be considered in fixation of dose. The observations related with researches may show changes according to different Ritus (seasons). Hence Maatra and Kaala should be properly considered seriously in Ayurvedic research.

CONCLUSION

The Maatra (proper quantity) of Aahaara Dravya (food article) depends on the Agni (power of digestion). So the food should be taken according to the power of digestion. The Aahaara Dravyas can be considered as Guru and Laghu type. The Guru food should not be taken up to the saturation unless there is Vyaayaamabala and Agnibala. The Laghu food can be taken not exceeding the saturation. The Guru Aahaara if taken more the required quantity and Laghu Aahaara if taken less than the required quantity cause ill health. Hence it is advised to take food as required according to the power of digestion and health of the body.

Ayurveda considers all factors relative with individual and individual variations should also be taken into account. Identifying the individual differences should be considered in fixation of Maatra (Purusham Purusham Veekshya) and are to be adopted in planning the treatment.

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Review :

Atherosclerosis - An Ayurved Perspective

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Abstract

Keywords- Atherosclerosis, Raktavahini, Rasa,Rakta ,Mansa ,Dhatu , Dushti, Dhamanipratichaya, Siragatvat

Introduction and Disease Review

Atherosclerosis is characterized by intimal lesions called atheromatous plaques, that protrude into and obstruct vascular lumina, weaken the underlying media, and may undergo serious complications. ATH primarily affects elastic arteries (e.g. aorta, carotid, and iliac arteries) and large and medium-sized muscular arteries (e.g. coronary and popliteal arteries). Symptomatic atherosclerotic disease most often involves the arteries supplying the heart, brain, kidneys, and lower extremities. Myocardial infarction, cerebral infarction, aortic aneurysms, and peripheral vascular disease are the major consequences of ATH. ATH also takes a toll through other consequences of acutely or chronically diminished arterial perfusion, such as mesenteric occlusion, sudden cardiac death, chronic IHD, and ischaemic encephalopathy.

Vitiation of Raktavahini (Dhamani) and the Dushti of the fluid circulating through it, is dependent on each other. It is bidirectional. It means if Rasa, Rakta is vitiated, it will vitiate Raktavahini and if Raktavahini is vitiated it will vitiate Rasa and Rakta Dhatu flowing through it.

Charaka has quoted Dhamanipratichaya while defining Kapha Nanatmaj Vikar and as in the consequences of Virrudha Annapana. In Siragatvat, the effect of Vayu on RasaRakta Vahinya leads to different kinds of symptoms and signs in the body, blood vessels become weak and loosen.

Conclusion

Atherosclerosis which can be correlated with Dhamanipratichaya and Siragatvat in Ayurved. There are number of risk factors for atherosclerosis few of them are nonmodifiable but number of them are potentially controllable and reversible.

When Rasa Rakta Dhatu remain in their normalcy, the depending organs remain normal and perform their functions normally. Any abnormality of Rasa, Rakta Dhatu affects the normal circulation of Rasa, Rakta, ultimately resulting in the abnormality in the Vahinies. Raktavahini are formed by Mansadhatu. Therefore, it can be concluded that Rasa, Rakta and Mansa

Dhatu are responsible for maintaining normal blood vessels. Hence vitiation of Rasa and Rakta and Mansa Dhatu and their respective Strotas should be avoided.

Introduction

Normal Vessels

The basic constituents of the walls of blood vessels are cells, predominantly endothelial cells (ECs) and smooth muscle cells (SMCs) and extracellular matrix, including elastin, collagen and glycosaminoglycans. The three concentric layers –intima, media, and adventitia –are most clearly defined in the larger vessels. In normal arteries, the intima consists of a single layer of ECs with minimal underlying subendothelial connective tissue and is separated from the media by a dense elastic membrane called the internal elastic lamina. The smooth muscle cell layers of the media near the vessel lumen receive oxygen and nutrients by direct diffusion from the vessel lumen, facilitated by holes in the internal elastic membrane. However, diffusion from the lumen is inadequate for the outer portion of the media in large and medium-sized vessels, which are nourished by small arterioles arising from outside the vessel and coursing into the outer one half to two thirds of the media. The outer limit of the media of most arteries is defined by the external elastic lamina. External to the media is the adventitia, consisting of investing connective tissue with nerve fibers and the vasa vasorum.

Based on their size and structural features, arteries are divided into three types 1) large, or elastic arteries, including the aorta, its large branches (particularly the innominate, subclavian, common carotid, and iliac), and pulmonary arteries.

2) Medium-sized, or muscular, arteries, including other branches of the aorta (e.g. coronary and renal arteries) and

3) Small arteries (less than approx.), which lie within the substance of 2 mm in diameter) and arterioles (20 to 100 μm in diameter), which lie within the substance of tissues and organs.

Atherosclerosis (ATH)

Atherosclerosis is characterized by intimal lesions called atheromas, or atheromatous or fibrofatty plaques, that protrude into and obstruct vascular lumina, weaken the underlying media, and may undergo serious complications.

Clinical Significance

ATH primarily affects elastic arteries (e.g. aorta, carotid, and iliac arteries) and large and medium-sized muscular arteries (e.g. coronary and popliteal arteries).

Symptomatic atherosclerotic disease most often involves the arteries supplying the heart, brain, kidneys, and lower extremities. Myocardial infarction, cerebral infarction, aortic aneurysms, and peripheral vascular disease (gangrene of the legs) are the major consequences of ATH. ATH also takes a toll through other consequences of acutely or chronically diminished arterial perfusion, such as mesenteric occlusion, sudden cardiac death, chronic IHD, and ischemic encephalopathy.

Pathogenesis

Atherosclerosis remains the major cause of death and premature disability in developed societies, which has become the leading global cause of total disease burden. Although many generalized or systemic risk factors predispose to its development, atherosclerosis affects various regions of the circulation preferentially and yields distinct clinical manifestations depending on the particular circulatory bed affected. Atherosclerosis of the coronary arteries commonly causes myocardial infarction and angina pectoris. Atherosclerosis of the arteries supplying the central nervous system frequently provokes strokes and transient cerebral ischaemia. In the peripheral circulation, atherosclerosis causes intermittent claudication and gangrene and can jeopardize limb viability. Involvement of the splanchnic circulation can cause mesenteric ischemia. Atherosclerosis can affect the kidneys either directly (e.g. renal artery stenosis) or as a frequent site of atheroembolic disease.

Atherogenesis in humans typically occurs over a period of many years, usually many decades. Growth of atherosclerotic plaques probably does not occur of relative quiescence punctuated by periods of rapid evolution. After a generally prolonged 'silent' period, atherosclerosis may become clinically manifest.

The clinical expressions of atherosclerosis may be chronic, as in the development of stable, effort-induced angina pectoris or of predictable and reproducible intermittent angina pectoris or of predictable and reproducible intermittent claudication. Alternatively, a dramatic acute clinical event, such as myocardial infarction, a stroke, or sudden cardiac death, may first herald the presence of atherosclerosis.

Understandably, the overwhelming clinical importance of ATH has stimulated enormous efforts to discover its cause. Historically, two hypotheses for atherogenesis were dominant; one emphasized cellular proliferation in the intima, whereas the other emphasized organization and repetitive growth of thrombi. The contemporary view of the pathogenesis of ATH incorporates elements of both older theories and accommodates the risk factors. This concept, called the response to injury hypothesis, considers ATH to be a chronic inflammatory response of the arterial wall initiated by injury to the endothelium.

Central to this thesis are the following :

- 1) Chronic endothelial injury, usually subtle, with resultant endothelial dysfunction, yielding increased permeability, leukocyte adhesion, and thrombotic potential.
- 2) Insudation of lipoproteins into the vessel wall, mainly LDL (Low Density Lipoproteins) with its high cholesterol content.
- 3) Modification of lesional lipoproteins by oxidation
- 4) Adhesion of blood monocytes (and other leukocytes) to the endothelium, followed by their migration into the intima and their transformation into macrophages and joint cells.
- 5) Adhesion of platelets

- 6) Release of factors from activated platelets, macrophages, or vascular cells that cause migration of Smooth Muscle Cell (SMC's) from media into the intima.
- 7) Proliferation of SMC's in the intima, and elaboration of extracellular matrix, leading to accumulation of collagen and proteoglycans.
- 8) Enhanced accumulation of lipids both within cells (macrophages and SMC's) and extracellular.

Risk Factors For Atherosclerosis

Major Risks

Nonmodifiable

Male gender

Family history

Genetic abnormalities

Potentially Controllable

Hyperlipidemia

Hypertension

Cigarette Smoking

Diabetes

Lesser, Uncertain, or Nonquantitated Risks

Obesity

Physical inactivity

Stress (Type A personality)

Postmenopausal estrogen deficiency

High carbohydrate intake

Lipoprotein (a)

Hardened (trans) unsaturated fat intake

Chlamydia pneumoniae

Prevention and Treatment

In the prevention number of factors is important to consider in atherosclerosis.

1) Lipid Disorders - Abnormalities in plasma lipoproteins and derangements in lipid metabolism rank among the most established and best understood risk factors for

atherosclerosis. Lipoproteins are the small particles in the blood which contain cholesterol, phospholipids, triglycerides and proteins. Lipoproteins are classified into four types on the basis of their density.

1. Very low density lipoproteins (VLDL) – contain high concentration of triglycerides (formed from FFA- free fatty acids and glycerol) and moderate concentration of cholesterol and phospholipids.
2. Intermediate density lipoproteins (IDL) – formed by the removal of large portion of triglycerides from VLDL by lipoprotein lipase. Concentration of cholesterol and phospholipids increases because of removal of triglycerides.
3. Low density Lipoproteins (LDL)- formed from IDL by the complete removal of triglycerides . These lipoproteins contain only cholesterol and phospholipids.
4. High density lipoproteins (HDL)- contain high concentrations of proteins with low concentrations of cholesterol and phospholipids.

All the lipoproteins are synthesized in liver. HDL is synthesized in intestine also. In fasting serum, cholesterol is carried primarily on three different lipoproteins – the VLDL, LDL, and HDL molecules. Total cholesterol equals the sum of these three components:

Total cholesterol = HDL cholesterol + VLDL cholesterol+ LDL cholesterol

Most triglyceride is found in VLDL particles, which contain five times as much triglyceride by weight as cholesterol. The amount of cholesterol found in the VLDL fraction can be estimated by dividing the triglyceride by 5

VLDL cholesterol = Triglycerides/5

VLDL carries cholesterol from the liver to organs and tissues in the body. It is also associated with atherosclerosis and heart disease. Current ATP guidelines recommend lipid screening in all adults > 20 years. The screen should include a fasting lipid profile (total cholesterol, triglycerides, LDL cholesterol ,and HDL cholesterol) repeated every 5 years.

As the mechanism by which elevated LDL levels promote atherogenesis likely involves oxidative modification. The first maneuver to achieve the LDL goal involves therapeutic lifestyle changes, including specific diet and exercise recommendations established by the guidelines. An extensive and growing body of rigorous evidence now supports the effectiveness of aggressive management of dyslipidemia. Addition to drug therapy to dietary and other nonpharmacologic measures reduces cardiovascular risk in patients with established coronary atherosclerosis and also in individuals who have not previously suffered CHD events.

Major Risk Factors (Exclusive of LDL cholesterol) that modify LDL goals

- Cigarette Smoking
- Hypertension (BP e” 140/90 mm of Hg)s or on antihypertensive medication) Low HDL cholesterol (< 40 mg/dL)

- Diabetes mellitus
 - Family history of premature CHD
 - CHD in male first –degree relative < 55 years
 - CHD in female first-degree relative < 65 years
 - Age (men \geq 45 years ,women \geq 55 years)
 - Lifestyle risk factors
 - Obesity (BMI \geq 30 kg/m²)
 - Physical inactivity
 - Atherogenic diet
 - Emerging risk factors
 - Lipoprotein (a)
 - Homosysteine
 - Prothrombotic factors
 - Proinflammatory factors
 - Impaired fasting glucose
 - Subclinical atherogenesis
- 2) Hypertension-Epidemiologic data support a relationship between hypertension and atherosclerotic risk and extensive clinical trial evidence has established that pharmacologic treatment of hypertension can reduce the risk of stroke, heart failure and CHD events.
- 3) Diabetes mellitus, Insulin Resistance, and the metabolic syndrome-Most patients with diabetes mellitus die of atherosclerosis and its complications. Ageing and rampant obesity underlie a current epidemic of type 2 diabetes mellitus.

The abnormal lipoprotein profile associated with insulin resistance, known as diabetic dyslipidemia ,accounts for part of the elevated cardiovascular risk in patients with type 2 diabetes .While diabetic patients often have LDL cholesterol levels near average ,the LDL particles tend to be smaller and denser ,and therefore, more atherogenic.Other features of diabetic dyslipidemia include low HDL and elevated triglyceride levels. Hypertension also frequently accompanies obesity,insulin resistance ,and dyslipidemia.The ATP III guidelines now recognize this cluster of risk factors and provide criteria for diagnosis of the ‘metabolic syndrome’

Clinical identification of the metabolic syndrome – any three risk factor

Risk factor	Defining levels
1) Abdominal Obesity	
Men (waist circumference)	> 102 cm
Women	> 88 cm
2) Triglycerides	> 150 mg/dL
3) HDL cholesterol	
Men	< 40 mg/dL
Women	< 50 mg/dL
4) Blood pressure	e" 130 / e" 85 mmHg
5) Fasting glucose	> 110 mg/dL

4) Male Gender/Postmenopausal State

There is excess coronary risk in men compared with premenopausal women. After menopause, however, coronary risk accelerates in women. In premenopausal women there is relatively higher HDL levels compared with those of men. After menopause, HDL values fall in concert with increased coronary risk.

5) Deregulated Coagulation or Fibrinolysis

Thrombosis causes the gravest complications of atherosclerosis. The propensity to form thrombi and/or to lyse clots once they form clearly influences the manifestations of atherosclerosis. Thrombosis provoked by atheroma rupture and subsequent healing may promote plaque growth. Certain individual characteristics can influence thrombosis or fibrinolysis

6) Homocysteine- Literature suggests a relationship between hyperhomocysteinemia and coronary events. Several mutations in the enzymes involved in homocysteine accumulation correlate with thrombosis and, in some studies, coronary risk.

7) Inflammation- Markers of inflammation correlate with coronary risk. eg. increased plasma levels of CRP, predict risk of myocardial infarction. Elevations in acute- phase reactants such as fibrinogen or CRP could reflect overall atherosclerotic burden and/or extravascular inflammation that potentiate atherosclerosis or its complications.

8) Lifestyle Modification –

- To assess and minimize cardiovascular risk.
- Counseling patients regarding the health risks of tobacco use and provide guidance and resources regarding smoking cessation.

- c) Prudent dietary and physical activity habits for maintaining ideal body weight. -at least 30 minutes of moderate –intensity physical activity per day. Obesity, particularly the male pattern of centripetal or visceral fat accumulation, can contribute to the elements of metabolic syndrome.
- d) Encouraging patients for behavior related to modifiable risk factors for development of premature atherosclerotic disease.

Efforts to reduce the consequences and impact of ATH include primary prevention programs aimed at either delaying atheroma formation or causing regression of established lesions in persons who have never suffered a serious complication of atherosclerotic coronary heart disease, and secondary prevention programs intended to prevent recurrence of events such as myocardial infarction in patients with symptomatic disease.

There is ample justification for the following recommendations for primary prevention of ATH – related complications in adults by virtue of risk factor modification :abstention from or cessation of cigarette smoking ; control of hypertension ;weight reduction and increased exercise ;and most importantly ,lowering total and LDL blood cholesterol levels while increasing HDL.Moreover, several lines of evidence suggest that risk factor examination and prevention directed at modification of risk should begin in childhood.

- 1) Morphologic studies have established that atherosclerotic coronary artery begins in childhood.
- 2) Cardiovascular risk factors in children predict the adult profile and have distinct ethnic and sex differences that relate to adult heart disease.
- 3) Serum cholesterol concentrations and smoking are important determinants of the early stages of ATH noted at autopsy in adolescents and young adults.

Secondary prevention involves use of lipid-lowering drugs (statins) and use of ant platelet drugs. These can successfully reduce recurrent myocardial infarctions.

Issues in Risk Assessment

A growing panel of markers of coronary risk presents a perplexing array. Markers measured in peripheral blood include size fractions of LDL particles and concentrations of homocysteine, Lp(a), fibrinogen, CRP, PAI-1, myeloperoxidase, and lipoprotein –associated phospholipase A₂, among many others. Such specialized tests add little to the information available from a careful history and physical examination combined with measurement of a plasma lipoprotein and fasting blood. The high-sensitivity CRP measurement in predicting a gamut of important cardiovascular outcomes, this simple blood test may prove useful in the future in guiding therapy, particularly in primary prevention.

Ayurved Review

Vitiation of Raktavahini (Dhamani) and the Dushti of the fluid flowing (circulating) through it, is dependent on each other. It is bidirectional .It means if Rasa, Rakta is vitiated, it will vitiate

Raktavahini and if Raktavahini is vitiated it will vitiate Rasa and Rakta Dhatu flowing through it. When rasa – rakta dhatu remain in their normalcy, the depending organs i.e. Sira, Dhamani, Hridaya etc. remain normal and perform their functions normally. Any abnormality of rasa – rakta dhatu affects the normal circulation of rasa – rakta, ultimately resulting in the abnormality of the blood pressure by making additional pressure or less pressure on the vahinies (arteries). Therefore, it can be believed that rasa – rakta dhatu also responsible for maintaining normal blood vessels.

Rasadhatu

It circulates throughout the body. Its main seat is believed to be Hridaya. Thus, Vikshepana Karma of the Hridaya also affect the circulation of Rasadhatu. So, when the pathology arises in the Rasadhatu or Hridaya, it directly affects Rasa-Vikshepana kriya (circulation of Rasa–Rakta) at the level of entire body.

Rasavaha Strotas

Hridaya and Raktavahini are the moolastan of RasavahaStrotasa. Hridaya is the origin of Rasavaha srotasa and the main seat of the Rasa also, hence is the root for all the physiological activity of the body. The circulation of Rasa – Rakta throughout the body takes place with the help of Vyana vayu. Hridaya has been considered the root of Rasa and Raktavaha srotasa, which contracts and relaxes itself, makes clear that circulation of Rasa-Rakta takes place with the help of Vyana vayu throughout the body and gives pulsating capacity to the arteries.

DHAMANI: In which, Dhamana, Spandana occurs is known as Dhamani. By Dhamani, Rasa-Rakta are circulated with pumping of Hridaya and nourishes all the body tissues. While circulating through Dhamanis a pressure is exerted by the Rakta on the walls of Dhamanis.

Rakta Dhatu

The main function of Rakta is 'Jivana' so, it has been mentioned as a "Jiva". When Rasa-Rakta dhatu remain in their normalcy, the depending organs i.e. Sira, Dhamani, Hridaya etc. remain normal and perform their functions normally.

Any abnormality of Rasa-Rakta dhatu affects the normal circulation of Rasa-Rakta, ultimately resulting in the abnormality of the blood pressure by making additional pressure or less pressure on the Vahinis (arteries). Rasa–Rakta samvahana occurs simultaneously in the body.

Raktavaha Strotas

The channels which supply nutrition to Raktadhatu is known as Raktavaha Strotaas. Yakrit, Pleeha and Raktavahinya are the Moola of Raktavaha Strotas. It is interesting to see both Rasa and Rakta Dhatu are circulated through Raktavahinya. Charaka has defined number of etiological factors for the vitiation of Raktavaha Strotas. When Raktadhatu is vitiated number of diseases are formed likely Kustha, Visarpa, Pidika, Raktapitta, Pleeha and Yakritrog, Vidradhi, Kamala etc.

Nidan in Rakta Dushti

1. Ati Amla, Lavana, Katu, Kshara, Madya Sevan
2. Ati Tikсна, Ushna, Madak Dravya Sevan
3. Kulattha, Masha, Nishpava, Tila taila, Pindalu, Mulak, Harit Varga, Dadhi, Amla Kanji, Dadhi ,Mastu, Sattu, Sura, Sauvira Sevana (alcoholic drinks)
4. Jalaja, Anupa, Bileshaya, Prasaha Mansa Sevan
5. Viruddhar Sevan
6. Upaklinna, Puti Ahara Sevan
7. Drava, Snigdha, Guru Ahar Sevan
8. Matradhik ahar Sevan
9. Ajirne Bhojan, Adhyashan
10. Divaswapa, Adhik Krodha, Shrama, Santapa, Abhighata, Atap Vayu Sevan,
11. Swabhavatah Sharadi Rakta Dushti

As Yakrit is Moola of Raktava Strotas, vitiation of Rakta and Raktavaha Strotas leads to number of diseases related to Yakrit eg. Kamala, Yakrit Vruddhi, Pleeha Vruddhi, Udara and number of skin diseases hence to avoid vitiation of Rakta and Rakta Dhatu, we have to avoid the causes related to diet for vitiation of Raktavaha Strotas. Amlarasa- Amlarasa is Laghu Ushna and Snigdha in quality but if taken in excess leads to liquification of Kapha increases Pitta and changes quality of Rakta Dhatu .Lavan Rasa taken in excess leads to vitiation of Pitta increases Ushna Guna and quantity of Rakta Dhatu ,it is Tikshna in quality and hence leads to vitiation of Rakta Dhatu. Katu Rasa when taken in excess having Vayu and Agni in excess in it leads to burning in gastro intestinal tract and also leads to Vatavikara.

Hence it is important to give the food which will not vitiate Raktavaha Strotas .Sushrut in sutrasthan states Doshas are responsible for the vitiation of Strotasas.It is a question of debate whether the symptoms of Strotodusti are specifically due to vitiation of Dhatus or whether for these symptoms specificity of Doshas is also important.

Causes for vitiation of Rasavaha Strotas

- 1) Overeating of Guru,Sheet,Snigdha kind of food substances
- 2) Atichinta (Stress)
- 3) Overburdened minds

The channels which supply nutrition to raktadhatu is known as raktavahastrotaas.Yakrit,pleeha and raktavahinya are the moola of raktavahastrotas.It is interesting to see both rasa and rakta dhatu are circulated through raktavahinya (blood vessels).Blood vessels coming from the heart are the rasavahinya and are defined as raktavahinya. As Chakradatt says through

the heart there is vikshepan of rakta along with ras.

Charaka has defined number of etiological factors for the vitiation of raktavaha strotas. Vidahi annapan, amla ,lavan ,katurasatmak dravye and overeating of the food having qualities of snigdha ,ushna dravya etc. guna and also overheated by sunrays and agni also leads to the vitiation of raktava strotas. When raktadhatu vitiated number of diseases are formed likely kushtha, visarpa, pidika ,raktapitta, pleeha and yakritrog, vidradhi, kamala etc.

Nidan In Rakta Dushti

1. Ati Amla, Lavana, Katu, Kshar, Madya sevan
2. Ati Tikshna, Ushna, Madak dravya sevan
3. Kulattha, Masha, Nishpava, Tila taila, Pindalu, Mulak, Harit Varga, Dadhi, Amla Kanji, Dadhi mastu, Sattu, Sura, Sauvira sevana
4. Jalaja, Anupa, Bileshaya, Prasaha mansa sevan
5. Viruddhar sevan
6. Upaklinna, Puti ahara sevan
7. Drava, Snigdha, Guru ahara sevan
8. Matradhik ahara sevan
9. Ajirne bhojan, Adhyashan
10. Divaswapa, adhik krodha, Shrama, Santapa, Abhighata, Atap vayu sevan,
11. Swabhavatah sharadi rakta dusht

Mansadhatu

In the metabolism ,Mansadhatu is formed after Raktadhatu. The constitution and nutrition of the body, healthy body texture and complexion is dependent on Mansadhatu. Hence in ayurved ,Uplepan (Covering the body) is defined as an important function of the Mansadhatu. Sira, Snayu, Strotas in the body are formed by the Mansadhatu. Mansa is the important constitution of these organs. Nutrition of the Mansadhatu and strength of the body are dependent upon Mansadhatu..

Snayu , Twacha and Raktavahini (Dhamani) are Moolasthan of Mansavahastrotas.

Etiological Factors for vitiation of Mansavahastrotas.

- 1) Abhyishandi Padarth- Diet which is Snigdha, Guru and heavy in quality. eg. salt, curd etc.
- 2) Diet which is heavy to digest
- 3) Overeating of the food which is heavy to digest
- 4) Sleeping just after meals particularly during day time

Viddha and Dusti Lakshane

Injury to Mansavahastrotas may lead to edema, Granthi (growths) in the Sira and fatality.

By Mansadushti we found symptoms and signs as Graniloma ,myoma,piles,galashaluk(uvilitis), galshundika(tonsillitis),sloughing of flesh, alaji (boils), goiter, cervical adenitis and inflammation of epiglottis.

Dhamanipratichaya

Charaka has quoted Dhamanipratichaya while defining different Vyadhi of Kapha (Kapha Nanatmaj Vikar) and as in the consequences of Virrudha Annapana.In the critics of Kapha Nanatmaj Vyadhi, Dhamanyupalepa Vyadhi has been described.And in chapter of Viruddhashanparinam,Siraj Granthi is described. Dhamani means Raktavahini. When depositions (Uplepa) occur from inner side of the Rakatvahini, it becomes heavy (Guru and Jadyata) and hardened (Ghan) .Shodhan Chikitsa is indicated and advised in Dhamanipratichaya.

Siragatvat

In Siragatvat, the effect of Vayu on RasaRakta Vahinya leads to different kinds of symptoms and signs in the body.They are as following

- 1) Different kinds of pain as dull ache anywhere in the body
- 2) Sira (Blood vessels) are palpable at the different sites
- 3) Body becomes emaciated
- 4) Blood vessels become weak and loosen (loss of elasticity)
- 5) Or by becoming loosened blood vessels are enlarged in size

Dhamanipratichaya and Siragatvat occur at same anatomical site (Blood vessels).But in the pathogenesis Kapha is responsible for Dhamanipratichaya and Vata is responsible for Siragatvat.Due to same anatomical site symptoms may be similar, hence blood vessels should be examined for its hardness or weakness and loss of elasticity.

Shaman and Brahan Chikitsa is advisable in Siragat Vatvikar.

Conclusion

Atherosclerosis which can be correlated with Dhamanipratichaya and Siragatvat in Ayurved. There are number of risk factors for atherosclerosis few of them are nonmodifiable but number of them are potentially controllable and reversible.

When Rasa Rakta Dhatu remain in their normalcy,the depending organs remain normal and perform their functions normally. Any abnormality of Rasa,Rakta Dhatu affects the normal circulation of Rasa ,Rakta, ultimately resulting in the abnormality in the Vahinies. Raktavahini are formed by Mansadhatu. Therefore, it can be concluded that Rasa,Rakta and Mansa

Dhatu are responsible for maintaining normal blood vessels. Hence vitiation of Rasa and Rakta and Mansa Dhatu and their respective Strotas should be avoided.

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Review :

Review of Kandu And Kandughna Mahakashay With Special Reference To Charak Samhita

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ABSTRACT

In Present era due to change in life style and unhealthy diet various skin diseases are growing which have Kandu as one of the symptom. It is irritating and embarrassing for patient. So GunakarmatmakaAdhyayan of KandughnaMahakashay from various aspects is necessary. Aim of the study was "To study the KandughnaMahakashay with respect to Kandughna Karma." Here it is observed that Kandu is not mentioned as disease though it is mainly mentioned as symptom which is usually caused by aggravation of Kapha, Kleda and obstruction in SwedvahaStrotas. Or it may also occur due to Raktapittadushti. 10 Drvayas from KandughnaMahakashay can be used in both ways, i.e. Katu-Katu-Ushna for Kapha-KledaAvarodhjanyaKandu and Tikta-Katu-Sheet for Rakta-Pitta-SwedDushtijanyaKandu in the form of various AushadhiKalpana for Bahya / AbhyantarPrayog. (References 15)

KEY WORDS :*Kandu (Itching), Kandughna (Anti-itching), Mahakashay.*

INTRODUCTION

In today's era, a large population is suffering from skin diseases like Urticaria, Scabies etc.; due to unhealthy & unwholesome diet like junk food. It may also associate with the occupation, hobbies, clothes, cosmetics or other articles that the patient is exposed to during his routine life. Kandu is one of the main symptoms in various skin diseases mentioned above. It is also seen in Arsha, Visha, Dansha also due to Diwaswap, PanchakarmaVyapad, etc. It is irritating symptom affecting the day to day activity also embarrassment for patients in society.

Kandughna means eradicate itching.

Kandu associated with skin and other diseases is one of the major problem and Drugs mentioned in KandughnaMahakashay can be very useful in treatment for above problem. So GunakarmatmakaAdhyayan of KandughnaMahakashay from CharakSamhita in various aspects is necessary.

KANDU

According to Amarkosh :-Rubbing of any part of body or limb.....2/6/53

Monnier-williams :-Feeling or a desire to itch.

Though Kandu is not described separately as Vyadhi in CharakSamhita and other texts it is included in the list of ShonitajVikar, SantarpanjanyaVyadhi, MadhyamMatraSnehpanyogyaRog and Chardi Vega-nigrahanjanyaRog as a Vyadhi. (CharakSamhitaSutrasthana 7/14, 13/35, 16/13, 23/5, 23/9, 24/16)

Charak has mentioned Kandu as Lakshan in **Pitta, Kapha&DushtaRakta**Vikar. According to Sushrut&VagbhatKandu is Lakshan of **Swedvruddhi** which is not mentioned by Charak.(SushrutSutrasthana 15/15)

Utpatti of Kandu can be explained as:

- Causative factors :- Dosha :- Pitta, Kapha
Dushya :- Rakta
Mala :- Swedavruddhi
- Abhivyakti :- Twak (Sarvadehik)

· Lakshan associated with Kandu:-Daha, Lalima, Rukshata, Strava, TwakSphutan.

Kandu is usually caused by aggravation of Kapha, Kleda and obstruction in SwedvahaStrotas. It may occur due to Raktapittadushti also. Kandu is mentioned as Lakshan, Purvaroop, Upadrava of various Vyadhi's and Vyapad of Panchakarma.

Abhivyakti of Kandu is mainly on Twacha which can be Sthanik or Sarvadehik.

1. Sthanik :- Vicharchika, Yuka, Pipalika, Kikwis, Arsha, Netrakandu, Darunak etc.

2. Sarvadehik :- Romantika, Kushtha, Sheetpitta, Udarda, Kotha, Amlapitta etc.

Table 1 showing references of Kandu as Lakshan from CharakSamhita

Vyadhi	Pakar showing KanduLakshan	Ref. in various Sthana of Charak Samhit	Vyadhi	Pakar showing KanduLakshan	Ref. in various Sthana of Charak Samhita
Kushtha	Kapal Kushtha	Nidan 5/7(1)	Krumi	Yuka &Pipalika	Viman 7/10
	AudumbarKushtha	Nidan 5/7(2), Chikitsa 7/15		KrumijHrudrog	Sutra 17/39, Chikitsa 26/80
	Mandal Kushtha	Nidan 5/7(3)		Vranagat Raktaj Krumi	Viman 7/11
	Hrushyajiva Kushtha	Nidan 5/7(4)		Gudagat Purishaj Krumi	Viman 7/13 Chikitsa 30/18
Pundarik Kushtha Kapha Dushtijanya Kushtha	Nidan 5/7(5) Nidan 5/10, Chikitsa 7/36		AcharnaYonivyapad Krumij Shirorog	Sutra 17/29, Chikitsa 26/118	

Arsha	Sidhma Kushtha	Nidan 5/7(6)	Dansha	Dushivisha	Chikitsa 23/141
	Alasak Kushtha	Chikitsa 7/23		Kitadanshta	
	DadruKushtha	Chikitsa 7/23		SavishaJalauka	
	PamaKushtha	Chikitsa 7/25		Dansha	Chikitsa 23/155
	Urdhva-Jatrugat	VicharchikaKushtha	Chikitsa 7/26	MashakDansha	Chikitsa 23/157
		VatajArsha	Chikitsa 14/11	SavishaPrani	Chikitsa 23/177
		PittajArsha	Chikitsa 14/14	Dansha	
		KaphajArsha	Chikitsa 14/17	Visha	TrutiyaVisha Vega
Kikwis	KaphajPratishaya	Chikitsa 26/106		KaphaPrakrutiVisha	Chikitsa 23/30
	KaphajMukharog	Chikitsa 26/121	Jwar	VishayuktaJala	Chikitsa 23/118
	KaphajKarnarog	Chikitsa 26/128		Prayog	
	KaphajNetrarog	Chikitsa 26/130	Yoni-vyapad	Punaravartakjwar	Chikitsa 3/337
Roman tika	Garbhapidanat Pitta-KaphaVruddhi	Sharir 8/31		KaphajYonivyapad	Chikitsa 30/13
	Pitta + KaphaDushti	Chikitsa 12/92	Shohta	KaphajShohta	Sutra 18/13
			Vatbasti	MutrarodhatAtikandu	Siddhi 9/37
			Vatarakta	UttanVatarakta	Chikitsa 29/20
				RaktajVatarakta	Chikitsa 29/27

It is also seen as Lakshan in PanchakarmaVyapad like AvidhiSnehapana, VamanHinayog, NiruhaVyapad etc.

PrakrutSwaroop i.e. Shiro-Kandu is mentioned as a **Lakshanin Vigat-Jwar**Awastha. (AshtangHrudayaNidansthana 2/79)

Kandu is also mentioned as **main or associated Lakshan** in Vyadhis like **Amlapitta, Sheetpitta, Udarda, Kotha&Darunak** which are not included in Charaksamhita but mentioned by **MadhavNidan, Yogaratnakar** and other Ayurvedic texts. (MadhavNidanSheetpitta 3, 5, 6; Amlapitta 5-6; Kshudrarog 30)

KANDUGHNA MAHAKASHAY

Chandan, Nalad, Krutamal, Naktamal, Nimba, Kutaj, Sarshap, Madhuk, Daruharidra, Musta. These are the 10 Dravya which are included in KandughnaMahakashay (CharakSamhitaSutrasthana4/11).

Table 2 showing Rasapanchak of Dravyas according to CharakSamhita and Bhavaprakash

Dravya	BOTANICAL NAME	FAMILY	Rasa	Vipak	Veerya	Guna	Dosha
Chandan	<i>Sanctalum album</i> Linn.	<i>Sanctalaceae</i>	Tikta	Katu	Sheet	Ruksha, Laghu	Pitta Kaphaharak
Nalad	<i>Nardostachys</i> <i>jatamansi</i> DC.	<i>Valerianaceae</i>	Tikta, Kashay	Katu	Sheet	-	Tridosahara
Krutmal	<i>Cassia fistula</i> Linn.	<i>Leguminosae</i>	Tikta, Madhur	Katu/ Madhur	Sheet	Guru	Kapha -Pittahara
Naktamal	<i>Pongamiapinnata</i> (Linn.) Merr.	<i>Fabaceae</i>	Tikta	Katu Katu	Ushna	Tikshna	Pittal, Kapha- Vatghna
Nimba A. Juss.	<i>Meliaazadirachta</i>	<i>Meliaceae</i> Katu	Tikta,	Katu	Sheet Snigdha	Laghu,	Kapha- Pittahar, Vatal
Kutaj	<i>Holarrhena</i> <i>antidysenterica</i> (Roth) A. DC.	<i>Apocynaceae</i>	Tikta, Katu, Kashay	Katu	Sheet	Ruksha	Rakta-Pitta- Kaphahar
Sarshap	<i>Brassica</i> <i>campestris</i> Linn.	<i>Brassicaceae</i>	Katu, Katu, Tikta	Katu	Ushna	Snigdha, Tikshna	Kapha- Vataghna, Rakta-Pitta Vardhan
Musta	<i>Cyperusrotundus</i> Linn.	<i>Cyperaceae</i>	Katu, Tikta, Madhur	Madhur /Katu	Sheet	-	Kapha-Pitta- Rakta Shamak
Madhuk	<i>Glycerrhizaglabra</i> Linn.	<i>Fabaceae</i>	Madhur	Madhur	Sheet	Guru, Snigdha	Pitta-Aniljit
Daruha- ridra	<i>Berberisaristata</i> DC.	<i>Berberida- ceae</i>	Katu, Tikta	Katu	Ushna	Ruksha	Kapha- Pittanashak

Ref:-CharakSamhitaVimansthana 8/137,138,140,141,144,145; Chikitsasthana 3/258,267; BhavaprakashNighantu.

Five Dravyas of KandughnaMahakashay are mentioned in YajjapurushiyaAdhyay as **ShreshthaHitkar**Dravyas.(CharakSamhitaSutrasthana 25)

Chandan - Durgandhyahara, Dahashamak, Nirvapan, Lepa

Kutaj - Shleshmapittarakta-sangrahak, Upashoshan

Musta - Sangrahika, Deepaniya, Pachaniya

Chaturangula - Mruduvirechan

Madhuk - Ropaniya, Chakshushya, Vrushya, Keshya, Kanthya, Varnya, Virajniya

Various Kalpanas of Dravyas from KandughnaMahakashay are used for Kandughna Karma, where combinations of 3 to 7 Dravyas of KandughnaMahakashay are used. Which are used for Bahya / AbhyantarPrayoga.

For e.g. **MahatiktakGhruta**(CharakChikitsasthana 7/144) includes 7 Dravyas (Aragwadh, Musta, Nimba, Chandan, Haridra, Vatsak, Yashti) of KandughnaMahakashay. It is used in various TwakVikar like Kushtha, Kandu, Vicharchika, Visarpa etc.

Kanaksheeri Tail (CharakChikitsasthana 7/113)and**Kushthadi Tail**(CharakChikitsa 7/102) are Kalpas which includes 6 Dravyas (Karnaj, Nimba, Musta, Kutaj, Darvi, Sarshap) of KandughnaMahakashay used in KushthaVyadhi and Kandu.

KushthaharLepa, Dravya Siddha-snan, KushthanashakLepa, KruminashakBasti, etc are Kalpas having Kandunashan as Phalashruti which includes 4-5 Dravyas of KandughnaMahakashay.

There is no reference of use as a **single drug** of ten Dravyas from KandughnaMahakashay in KanduChikitsa except Sarshap Tail. Dravyas are mainly used as other ingredient in various formulations.

DISCUSSION

Kandughna Karma can be explained as suppressing or removing Kandu. There is no any direct reference has been found regarding Kandughna Karma in any Samhitas or it is not mentioned by its Tikakaras.

In Rasa Karma of Katu and Tikta Rasa, Kanduvinashan&Kanduprashaman are mentioned respectively.(Ref. :CharakSutrasthana 26/43 (4,5))

When obstruction of SwedavahaStrotas is caused by Kapha&Kleda; Katu, TiktaRasatmak and Laghu, Ushna, Ruksha, Tikshna, Lekhan, SukshmaGunapradhanDravyas are useful for Srotoshodhan which helps for Kandughna Karma.

If Rakta Pitta Dushti is causative factor for Kandu; Tiktarasa&SheetveeryatmakDravyas are useful for Kandunashan by their Rakta-Pitta ShamakGuna. They also help to eliminate Srotodushti caused by Kapha.

Probable mode of action of KandughnaMahakashay :-

Dravyas from KandughnaMahakashay are mainly **Katu, Tikta**Rasayukta except Yashtimadhu which is MadhurRasatmak and Musta mentioned in Madhur, Tikta and Katuskandha. Veerya of all 10 Dravyas is mainly **Sheet** except Darvi, Sarshap, Naktamal. These Dravyas are mainly Snigdhya, Laghu, Guru, Tikshna&RukshaGunatmak. Chandan, Krutamal, Kutaj, Musta, Darvi, Nimba are **Kapha-Pitta**Shamak. Nalad is Tridoshghna. Sarshap and Karanj are Kapha-vataghna. Madhuk is Pitta-vataghna. Amongst these DravyasKutaj and Musta is Raktashamak.

- Katu-Katu-Ushna&Ruksha, TikshnaGunapradhanDarvyas i.e. Darvi, Sarshap, Naktamal are useful for Kapha-KledapradhanAvarodhjanyaKandu.
- Tikta-Katu-Sheet & Guru, SnigdhaGunapradhanDravyas i.e. Chandan, Nalad, Krutamal, Nimba, Kutaj, Musta, Madhuk are useful for Pitta-Rakta-SwedDushtijanyaKandu.

According to references, use of these Dravyas for Kandughna Karma can be specified as :-

- **KushthapradhanKandu-** Chandan, Nimba, Naktamal can be used for external application in the form of Pradeha, Lepa and Abhyanga for Kandu&Dahaprashaman.
- **KrumipradhanKandu-** Nimba, Naktamal can be used.
- **UrdhwajatrugatVikarjanyaKandu-** Darvi, Madhuk, Sarshap are more useful.
- **SantarpaniyaKandu-** Musta, Aragwadh, Nimba, Darvi can be used.
- **VranajanyaKandu-** NimbaKwath can be used.
- **VishajanyaKandu-** Darvi, Nimba, Madhuk, Chandan, Nalad&Musta can be used.
- **Kapha-KledapradhanAvarodhjanyaKandu-** Darvi, Sarshap, Naktamal
- **Pitta-Rakta-SwedDushtijanyaKandu-** Chandan, Nalad, Krutamal, Nimba, Kutaj, Musta, Madhuk.

CONCLUSION

- Kandu is not mentioned as Vyadhi though it is mainly mentioned as Lakshan which is usually caused by aggravation of Kapha, Kleda and obstruction in SwedvahaStrotas. Or it may also occur due to Raktapittadushti.
- 10 Drvayas from KandughnaMahakashay can be used in both ways, i.e. Katu-Katu-Ushna for Kapha-KledaAvarodhjanyaKandu and Tikta-Katu-Sheet for Rakta-Pitta-SwedDushtijanyaKandu for Bahya / AbhyantarPrayog.

Thus, this study can be a general guideline for use of ten Dravyas of KandughnaMahakashay for Kandughna Karma.

The above study can be useful for Vaidyas in daily practice. Vaidyas can be more precise by taking into consideration Dushya, Desha, Prakruti, Bala, Kala etc.

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General :

150 Years of Diet Fads

(Compiled by Assistant Editor)

- 1) The Romans were the possibly the 1st dieters, vomiting after their enormous meals. While the art of dieting is older than 2000 years, the 1st popular diet fad. William Banting's Low Carb diet, began in 1863. Take a look at some of the most popular trends that attempted to put mind over matter.
- 3) Banting's low carbohydrate diet - William Banting, a formerly obese undertaker, wrote and published a booklet. Later on, Corpulence addressed to public, after loosing weight, following a four meal diet per day, consisting meat, vegetables, fruits, and dry wine. He also avoided sugar and dairy and beer.
- 4) Horace Fletcher & Fletcherising – The Great Masticator as Fletcher was known, believed that food had to be chewed between 30 to 80 times before swallowing. He reasoned that food will turn to liquid from constant chewing and would mix properly with saliva.
- 5) Calorie Counting – Bananas And Skim Milk Diet
The diet was advertised so that the United Fruit Company could sell more bananas. A certain, Dr.George Harrop, looked at fat free skim milk and potassium rich bananas and voila ! a weight loss plan emerged.
- 6) To keep a slender figure No one can deny.....
Cigarette Diet –An advertizing campaign began this diet. Created by Albert Laskar for lucky strike cigarettes, "Reach for a Lucky" was aimed especially at women, and cited nicotine's alleged weight –loss properties to make it more acceptable for women to smoke their product.
- 7) Zen Macrobiotic Diet – Japanese doctor Sagen Ishizuka (1850 – 1910) allegedly cured himself of cancer by following a diet of brown rice, miso soup, soya beans, and vegetables. Zen Macrobiotic Diet is based on his writings.
- 8) Tapeworm Diet – There is crazy and then there is the Tapeworm Diet. This, perhaps, was the most desperate diet of them all: allow Tapeworm in to one's digestive system in the fervent hope that they would digest the food and thus, one could eat without fear of gaining weight.
- 9) World's 1st Celebrity dieter – When he was not writing delicate verse, Lord Byron was obsessing over his weight. His diet, consisted of biscuits and soda water, or potatoes soaked in vinegar, followed by huge meal and ending it with a heavy dose of milk of magnesia.
I went on a diet, swore of drinking and heavy eating and in fourteen days I lost two

weeks.

JOE ELEWIS

You are allowed to eat anything you want, but, you must eat it with naked fat people.

ED BLUESTONE

When we lose 20 pounds... we may be losing the 20 best pounds we have ! We may be losing the pounds that contain our genius, our humanity, our love and honesty.

WOODY ALLEN

"Rich fatty foods are like destiny" they too, shape our ends.

UNKNOWN

10) Beverly Hills Diet

In her book carrying the same name, Judy Mazel (pictured advocated a six-week long program, beginning with 10 days, of specific fruits in a certain order and quantity.

11) Atkins's high protein, low carb diet

Created by Dr.Robert Atkins in 1972 and it became hugely popular in 1990s. It focuses on food with a low glycemic index: high fats, moderate proteins and limited carbs. The diet was the 1st to debunk the calorie counting rule which was revolutionary at the time.

12) Dunken Diet

Founded by Frenchman, Pierre Dunken, the diet was in existence for 30 years before the book was published and became an instant best seller. It is similar to the Atkin's diet, but does not allow fats and oils and insists on the daily consumption of oat bran.

13) Cabbage Soup Diet , Juice, Fasting, Detox, Coconut Diet

It begins with a 21-day Kick-off where one must avoid fruit, alcohol, dairy, sugar and caffeine. Three meals a day of vegetables, nuts and lean proteins must include 2 tablespoons of extra virgin coconut oil that speed up your metabolism.

14) Drinking Man's Diet

In order to cut down on carbs, turn to alcoholic drinks which contain less carbs. But, what about alcohol containing almost twice as many calories per gm? Actor Dean Martin was probably wondering the same thing.

Ayurveda Advice : Eat freshly prepared warm food in small quantity with good company and aromatic environment is good for body, mind and soul.

1st February 2015

General :

Amazing Body Facts

The human body never ceases to amaze. Did you know that the 300, 000 million capillaries in your lungs, laid end to end, will cover distance between Delhi and Chennai. Here are more of such mind blowing facts.

1) 500 gm Fat =11Km BLOOD VESSELS

When you get 500 gm of fat, your body makes 11 Km of blood vessels. This means your body must work harder to pump blood through all of these extra new vessels, straining your heart. Fortunately if you lose 500 gm, your body will break down and re-absorb the, now, unnecessary vessels.

2) It is hard to grasp just how small the atoms that make up your body until you look at the sheer number of them.

An adult is made up of around 7,000,000, 000,000, 000,000, 000,000, 000, (7 OCTILLION) ATOMS. (1 octillion=1000 trillion trillion)

3) Largest Molecule ? CHROMOSOME 1 -

It contains around 10 Billion atoms-A normal human cell has 23 pairs of chromosomes in its nucleus, each a single, very long molecule of DNA. Chromosome 1 is the biggest to pack in the amount of information that is encoated in the molecules.

4) **Our digestive acids are strong enough to dissolve zinc.**

But cell in the stomach lining renew so quickly that the acid do not have time to dissolve it.

5) The focusing muscles of the eyes move around **100, 000 times a day**. To give your leg muscle the same workout, you would need to walk 80 Kms a day.

6) Human bone is as strong as granite in supporting weight. **8.6 tones that is how much one cubic inch of bone can support.** That is four times as much as concrete can support.

7) The skin is the largest organ in the body in an adult person it covers about **20 sq.ft.** it constantly flakes away. **Each person shades around 18 Kg in a lifetime.**

8) **10 million** that is how many new sperm cells in man's testicles manufacture each day – enough to re-populate the entire planet in only six months.

9) **In movies, a human body explodes if it is pushed in to space without suit.**

But, it is mostly fiction. Although, liquids do boil in a vacuum, your blood is kept under pressure by your circulatory system and would be just fine. It is lack of air that will kill you.

10) You are sleep deprived if you fall asleep within five minutes of hitting the sack. **The ideal is between 10 to 15 minutes**, means you are still tired enough to sleep deeply, but not so exhausted you feel sleepy during the day.

Compiled by : Assistant Editor

(Source : Advanced physical Medicine, istevrse.com)

General :

Cancer : A View

Lucia Tommsini, Italy

Why have the words of Richard Smith, 'Dying of cancer is the best death' had such a huge impact on people?

Why should cancer necessarily cause death? Any so called cause of death is simply imaginative

because death happens simply on its own. We can't control the time of death, it comes when it will. However, we can modify the quality of life before death. It is fascinating and extremely difficult job to perform for oneself and others.

Many people, scientists and laymen still believe that physical illness has an exogenous origin.

When the evidence of that is not there, the layman and the scientist turn their attention to the organs, to the tissues, to the system where the disease appears. Usually, they do not consider the function.

We know the function but it is difficult to control it because it represents an action of the body deeply connected with our way of thinking, feeling and living.

If dying of cancer is the best way to die, we should understand that we are not speaking of the illness as such but of the time which is given to us before death. No one knows when this will happen. Everyone of us will die. We are afraid of the quality of life before death.

Cancer, in Greek, is called neoplasia and it means new life. We were born with a neoplastic cell staying somewhere in the body up to when it is called to manifest itself.

A recent scientific report stated that through autopsy of persons deceased for reason other than cancer, scientists found calcinated cancers living in the body without causing any discomfort.

Why are we so afraid of death? Why not to take care of the quality of life? And on what to base the quality of life? Science proposes medicines to keep this quality and the evidence is proving that this is not always the case.

As a naturopath with a classic and eastern approaches, I have been close to several people ill with cancer who made an autonomous decision to live with the illness, using it as a teacher, and who were asking help to understand the teacher, the cancer. Few were cured by themselves, through their understanding, others died within a framework where suffering was there with the full understanding of it and consequently taking benefit of the remedy and medicine available.

The words of Dr Richard do not ask us to take into account personal experiences of cancer.

They call for reflection, they should not be the object of an attack. They ask for a different way to see the problem. Why don't we speak, communicating our different experiences without waiting for the Centre of Oncology Research to find the cure for cancer? Why we do not to understand that any illness is a mirror of something else living in ourselves, in our mind and emotions?

(I would like to add this other para related to ayurveda)

In Ayurveda, although described with different words, we find evidences of this illness. But our ancestors did not have the facility of scientific researches and findings. But they realised the existence of this degenerative state of life of the body considering prakruti, mind behaviour and style of life.

Ayurveda teaches us how to maintain health and prevent illness. Jivaka was unable to find anything that couldn't be a medicine and having an health restoring effect. I suggest that nowadays we are looking for remedies, medicines, therapies because we are unable to take the responsibility of ourselves, it does not matter if we are scientists or laymen.

Phylosophy :**Bhagvad Geeta English**

Chapter no. 3,/ 1 Karma Yoga / working Method.

Summary,

Every person has to work daily during his/her life. His sustenance is depending on his duty. Life is meaningful if person continue his duty. One has to offer some portion out of his earnings to needy person. Human born from food/ Anna. Food helps body growth and maintains life. Food offerings brings people together. People becomes happy, inturn we get happiness.

Perform your duties of best quality. No laziness. Whatever fruit, end product you recive, that is to be offered to the God/Deva. Perform your duties only. Do not try to perform duties of others though it looks attractive, lucrid. Performing work like others may invite trouble for you. Have control over your mind & body. Enjoy life following rules of nature.

03/01 Purpose of work, duty. If Buddhi / Intelect is better, greater, superior than Karma/ duty, work, then why perform duty?

03/02 Is it better to follow balanced Buddhi or not to follow advice of Buddhi? What is to be done, performed? How I will be benefitted?

03/03 There are two types of people in this world. Sanyasi follow the path of Dnyana yoga i.e. Path of knowledge, wisdom, men of contemplation. Karma yogi, men of action serve the people, perform public utility activities.

03/04 Not to start any work is not Nishkama Karma. To perform duty is needed for Yoga. No success, Siddhi, perfection is achived with non performance. Unaffected by work, action is Nishkamakarma. Renunciation of selfish desire is needed.

03/05 No one can remain without work even for a moment. No excuse for work. Performance of duty without any attachment will lead to Moksha, Liberation.

03/06 A person is having control over hands, legs i.e. organs of actions but his mind is thinking of objects of sense, indulging in desiers is known as a man of false conduct, hypocrite, Mithyachari.

03/07 The person who controls the senses by mind and starts work without attachment is known as superior.

03/08 Person should perform allotted work to him. Action is better than inaction. It is better. If we do not perform our duties, body will not be maintained.

03/09 Perform your natural duties for self and for family. These are divine and needed to be Performed without attachment. Because this is devine, thus is Yadhya, the sacrifice. This attitude is required.

03/10 The universe appeared, it was created by lord. Every body has to work. One who works for others, progresses well & he recives whatever he desires.

03/11 Perform your work, give joy to others. It will be followed by more joy to you. God will provide bliss. Help each other and you will get greatest post, position, feet of god.

03/12 What ever you get give it to others. One who keeps everything for self without offering to others is known as of low level.

03/13 Prepare food and offer to others. Eat small quantity from this sacrifice. This act will burn

- all sins, bad deeds and person is liberated. People who prepare food for self and do not give to others accumulates sin only and becomes sin master.
- 03/14 Animal, man born out of food, food germinates from rain, rain fall is due to Yadnya i.e. work, duty, and good work gives birth to sacrifice.
- 03/15 God creates nature, prakruti. Prakruti gives birth to karma, work. God is present at every action, though he is invisible.
- 03/16 Universe is moving constantly. Every person should work constantly. If person is living for happiness of organs means life is meaningless.
- 03/17 The man whose delight is in the self. Who is content with the self. one who is satisfied with the self. For such person there is no work needs to be done. He is freed from sense of duty. He performs his duties out of natural impulse.
- 03/18 He is not interested in gain by action or not performing action. He is not dependent. Liberated man works for welfare of the world. He is happy in self.
- 03/19 Hence perform work always without attachment. Such devotee attains to the highest means he meets the god, Paramatma.
- 03/20 As Janak and others attained the perfection by works. Every body should work for benefits of others. Then people will come to gether and that is Loka Sangraha, unity of the world.
- 03/21 Whatsoever a great man, celebrity does, the same is done by others. Whatever standarder is set by superstar is followed by the world.
- 03/22 There is no work to be performed by the god in these three worlds for obtaining anything. However god is working constantly. Likewise every person should work.
- 03/23 If god stops working, people will follow the same way. People usually follows god.
- 03/24 If god cease to work all worlds would fall in ruin. Enormous creatures would bappear, life will be disordered. Ultimately destroy these people. Incessant activity is needed.
- 03/25 Lay person work for gaining something. This is attachment to work. Learned people give example of to work without attachment.
- 03/26 Dnyanee / enlightened person should not unsettle the minds of ignorent people. Such people are attached to action. / karma. Enlightened person should set an example for others by doing action without any desire.
People having some belief they work having desire for some gain. Belief is having some primitive side, assumptios. It is needed to educate people step by step to larger vision.
- 03/27 All kind of works are done by Prakruti / nature. Triguna present in Prakruti. Person with ego thinks that he is doer of all.
- 03/ 28 One who knows ultimate truth, or parabramha, he is never under control of sense organs. He never works, bothers for satisfaction of senses. He understands difference between work with devotion and selfish work.
- 03/29 People under influence of modes of Prakruti entangled in guna and karma. They continue their work. The knowledgable person should not disturb such people. No need to disturb their mind.
- 03/30 Without self esteem, egoidm, laziness, desire for some gain continue daily work. Offer it

to god. Get Surrender to paramatma.

- 03/31 No need to find any faults, mistakes. Perform your duty only. Have utmost faith (shraddha) . You will be free from bondage of work.
- 03/32 The people who are not faithful, behave rudely, remain ignorant finishes.
- 03/33 Wise men act according to their nature, all creatures follow their tendencies. Repression, external force is not needed. It may disturb body functions.
- 03/34 Every sense organ is having affinity, aversion, repulsion. Man should not allow himself to be swayed by them. Do not have a craving of Indriyani. Try to satisfy each organ at proper time and in smaller way. To be under control of organs means entering in a jaw of great enemy.
- 03/35 It is better to follow our own duty. Do not try to copy other's duty though it is attractive or better. Every person's nature / prakruti at body level and mental level is different and unique. Better is death while performing own's duty, dharma, work. But not certainly follow other's pattern of work.
Desire and Anger are Enemies.
- 03/36 Why man commits sins, wrong deeds? Who is asking him to do so? He does it without his will, desire. Which force is driving ? These are questions of devotee.
- 03/37 Answer is like this. Raja guna is one of three gunas working at mind, brain level. It is responsible for appearance of desires. If desires are not fulfilled, anger, krodha appears. Krodha, anger is enemy.
- 03/38 As fire is covered by smoke, mirror by dust, and embryo by the amnion in similar way knowledge, wisdom, atman is covered by desire, icchha, passion.
- 03/39 Wisdom, chetana is enveloped by insatiable fire of desire. This is eternal foe, enemy of wise.
- 03/40 Indriya / senses, mind / manas, and buddhi / intellect are seats, doors of all desires. It deludes the soul by covering it and obstructing light of truth. It leads to soul under anaesthesia, leads to delusion.
- 03/41 It is advised to control all senses every day. Slay this sinful destroyer of wisdom, dnyana. Dnyan is knowledge of Absolute or Nirguna Bramha. Vidnyana is knowledge of Sakara Bramha or manifest divinity. (Dnyan is knowledge of the self and other things acquired from the scriptures and the teachers. Vidnyan means personal experience, anubhava).
- 03/42 Senses are great. Mind is greater than senses. Intelligence is greater than mind. Atman is greater than intelligence. (Consciousness must, be raised step by step. Slowly we become free.)
- 03/43 You (self, atma) is beyond sense, mind and intellect. Adhyatmik, spiritual strength lies in controlling mind. Keep all desires under control forever. (control the restless ego by the light of the eternal spiritual self. One who knows becomes truly independent. He gets guidance from his inner light.)
Third chapter of Bhagwadgita titled Karmayoga is complete.
(10 / 08 / 2014. Narali pournima) (P. H. Kulkarni)

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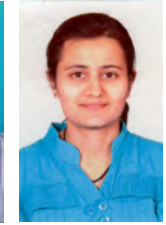
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