Sthulapramehi w.s.r. to Vatastheela (BPH) - Pilot study. Jour. of Ayurveda & Holistic Medicine, Vol.-XI, Issue-II (Feb. 2023).



Journal of Ayurveda & Holistic Medicine

www.jahm.co.in

elSSN-2321-1563

ORIGINAL RESEARCH ARTICLE- CLINICAL RESEARCH

OPEN ACCESS

EVALUATION OF THE EFFECT OF ERANDAPATRA KASHARA CAPSULE IN STHULAPRAMEHI W.S.R. TO VATASTHEELA (BPH) - PILOT STUDY RAGHAVENDRA P. SHETTAR^{1*} SANGEETA H. TOSHIKHANE²

ABSTRACT:

Background: Sthulaprameha with Vatastheela (BPH) both disease that causes voiding dysfunction in elderly male patients and impairs their quality of life. In present study Erandapatra Kshara was given to patients of Sthulapramehi with BPH. An attempt was made to evaluate the effect of Erandapatra Kshara. Total 20 Patients of Sthulapramehi with BPH were registered in this study. Erandapatra Kshara capsule was used of 1000 gm divided dose daily after meals for 45 days. The efficacy of treatment was assessed based on relief in cardinal signs and symptoms and Blood sugar, Lipid profile, BMI and ultrasound etc. The result showed that the Erandapatra Kshara given better relief in signs and symptoms as well as on FBS, PPBS and BMI. Objective : 1) To evaluate the effect of Eranda Patra Kshara in Sthulapramehi and BPH.2) To evaluate the effect of Eranda patra kshara in reducing blood Sugar level with reducing BMI, and reducing symptoms of BPH. Material method: In present study 20 patients were reported BMI was 33.9kg/m2, having clinical signs and symptoms like Sthulaprameha with BPH noticed in Rajiv Gandhi education Societies Ayurvedic medical college and Hospital Ron. and registered following written consent. Registered patients have been administered Erandapatra Kshara Churna of 1000mg in devided dose with hot water for 45 days. Follow up has been recorded after every 10 days. Results: Eranda Patra Kshara capsules, diet control and exercise show a significant reduction blood glucose level, weight reduction and reduces the symptoms of BPH. Specially relief from Prabhuta mutrata, Karapadadaha, Swedadhikvata, Urinary obstruction, Urinary incontinency, Conclusion: Eranda patra kshara can be used in the regular treatment of Sthulapramehi with BPH free from side effects& it is effective management.

KEY WORDS - Sthulaprameha, Vatastheela Erandapatra, Kshara, BPH.

^{1*}Associate Professor PG Studies in Kayachikitsa, Rajiv Gandhi Education Societies Ayurvedic Medical College PG and PhD research center, Ron, Karnataka, India.

²Professor and HOD, Dept of Panchakarma, Parul institute of Ayurveda, Parul university, Limda, Waghodiya, Vadodara-391760, Gujarat, India.

Corresponding Email id: <u>drshettarpgrpg@gmail.com</u> Access this article online: <u>www.jahm.co.in</u> Published by Atreya Ayurveda Publications under the license CC-by-NC-SA

INTRODUCTION:

According to shareera prakruti Sthulaprameha is a type of Santarpanajanya vyadhi which has been included in *Prameharoga*^[1]. Old age male are more prone towards Sthulapramehi and Vtashteela. After 55 years of age years more incidence are finding ie Sthulaprameha and Vatasteela. People having mixed diet, sedentary lifestyle, Kapha pitta prakruti and teekshaqni have more chances of Sthulaprameha^[2] and later this prameha and sthoulya leads to the Vatastheela (BPH).

Diabetes Mellitus is the most common metabolic disorder encountered in clinical practice. It is strongly linked to obesity and BPH^[3] .Benign Prostate Hyperplasia is most common problem in one third of male population aged over fifty years.^[4] Original studies of BPH pathogenesis identified androgen and aging as risk factors, and more recent studies have identified additional risk factors, such as genetics, diet, immune status, metabolism, and inflammation. Studies of BPH patients with metabolic disorders, such as diabetes and obesity, have found a positive correlation between fasting glucose level and the progression of BPH^[5].

Vatastheela is a disease one among the twelve types of *Mutraghata*. Acharya Sushruta described that vitiated apana vayu^[6], settled in between the rectum and urinary bladder, produce distention of the bladder and occurs symptoms like Urine retention, incomplete voiding dribbling, hesitancy, straining during urination and can be corelated with BPH. Ayurveda mention many natural medication and procedures for, among which Kshara. is one of the potent preparations that helps to effectively breakdown the pathogenesis of Sthoulya, madhumeha and BPH due to its property and potency.

Eranda Patra Kshara, mentioned in *Bhaishyaja Ratnaval*^[7] *Eranda Patra Kshara* where in the drug is easily available and easy mode of preparation of the formulation makes it worth testing for its efficacy, hence the present clinical study is under taken to evaluate the *"Effect of Eranda Patra Kshara in Sthula Pramehi w.s.r. to Vatasteela (BPH)"*.

Aims and Objectives: 1) To evaluate the effect of *Eranda Patra Kshara* in *Sthulapramehi* and *Vatasheela*. 2) To evaluate the effect of *Eranda patra kshara* in reducing blood Sugar level, reducing BMI, and reducing symptoms of BPH.

MATERIALS AND METHODS :

1) Source of data:

 a) Patient - Patients diagnosed as Sthulapramehi with BPH randomly selected from OPD and IPD of Rajiv Gandhi Education Societies Ayurvedic

Sthulapramehi w.s.r. to Vatastheela (BPH) - Pilot study. Jour. of Ayurveda & Holistic Medicine, Vol.-XI, Issue-II (Feb. 2023).

Medical College, Hospital, PG and PhD research center Ron.

- b) Literary Literary aspect of study will be collected from classical Ayurvedic and Modern texts and updated recent medical journals, research works.
- c) Eranda Patras -The trial drugs required for the preparation of medicine are collected from local areas.

Weight machine, Height measuring stand, measuring tape and Herpendine's calipers are used for the measurement of Height, Weight, Body girth and Skin fold thickness respectively.

Study design – Single blind placebo controlled clinical trial.

Sample size – 20 patients excluding drop outs.

Grading of Parameters

1. Prabhuta Mutrata

- 3 to 6 times per day, Rarely at night 0
- 6 to 9 times per day, 0 to 2 times per night-
- 9 to 12 times per day, 2 to 4 times per night - 2
- More than 12 times per day, more than 4 times per night- 3

2. Pipasadhikyata

- Feeling of thirst 7 to 9 times per day 0
- Feeling of thirst 9 to 11 times per day 1
- Feeling of thirst 11 to 13 times per day 2
- Feeling of thirst > 13 times per day 3

3. Ksudhadhikyata

•	As usual	- 0

- Slightly increase 1 to 2 meals 1
- Moderately increased 3 to 4 meals 2
- Markedly increased 5 to 6 meals 3

4. Krapada daha

- No daha 0
- Krapada daha is not continuous 1
- Krapada daha is continuous 2
- Krapada daha is not continuous 3

5. Atisweda

- Absent / Normal sweat -0
- Present with normal physical activity -1
 - Present even at rest -2

6. BMI

- 25 to 28 kg /m² 0
- 28 to 30 kg /m² 1
- 30 to 35 kg /m² 2
- 35 to 40 kg /m² 3

7. Prostate Size and volume

- 25 to 30 ml 0
- 30 to 50 ml 1
- 50 to 80 ml 2
- >80ml 3

8. Urine Flow and initiation

- Clear and Easy 0
- Clear and difficult initiation 1
- Obstruction and easy initiation- 2
- Both Obstruction and difficulty 3

9. Residual Volume

• 50 to 80 ml - 0

Sthulapramehi w.s.r. to Vatastheela (BPH) - Pilot study. Jour. of Ayurveda & Holistic Medicine, Vol.-XI, Issue-II (Feb. 2023).

•	80 to 90 ml	- 1	1) Patients between the age group 55 to
٠	90 to 100 ml	- 2	75 years will be selected.
•	More than 100 ml	- 3	2) Patient with BMI between 28 kg $/m^2$
10.	Fasting Blood Sugar		to 39.9 kg/m ² will be included in this
•	75 to 110 mg / dl	- 0	study.
•	111 to 125 mg / dl	- 1	3) Abdominal circumference over > 40
•	126 to 180 mg / dl	- 2	inches will be considering.
•	> 180 mg / dl	- 3	4) Patient with the history of DM less
11.	Postprandial blood suga	ir	than 3 year will be included in the study.
•	Up to 140 mg/dl - 0		5) Blood sugar with the range of FBS 110
•	141 to 160 mg/dl	- 1	- 170mg /dl
•	160 to 300 mg/dl	- 2	6) Patient with PSA between >4 $\mu\text{g/L}$ to
•	>300mg/dl	- 3	$<\!\!8~\mu\text{g/L}$ will be included in this study.
Lipi	d Profile		included
-	LDL		7) Patients with Prostate volume (PV) >80
•	<130 mg/dl	- 0	ml will be included
•	130 to 159 mg/dl	- 1	8) Prostate size >30 gms and <60 gms
•	160 to 180 mg/dl	- 2	9) Post residual urine volume [PRUV] >50
13.	HDL		ml will be included
	>60 mg/dl	- 0	l usion criteri a:
•	40 to 60 mg/dl - 1	•	1) Patient associated with systemic
•	40 to 30 mg/dl - 2		disorders viz. CVD, Endocrine disorders
11	Serum Cholesterol		affecting the clinical trial.
•	>200 mg/dl	- 0	2) On long term medication that may
	200 to 239 mg/dl	- 1	interfere the study.
•	_		3) Obese patient suffering from
•	239 to 250 mg/dl	- 2	Hemiplegia, associated with sever
15.	Serum Triglyceride	0	Hypertension and from other such
•	<150	- 0	diseases in which the patient cannot do
•	150 to 199 mg/dl	- 1	his routine physical activities were
•	199 to 220	- 2	excluded.
Inc	lusion criteria :		

- 4) Any physical and systemic disability that may interfere the clinical trial.
 5) BMI > 40 kg/m² Obesity Class –III
 6) Blood sugar with the range of FBS more than 180 mg /dl were excluded
 7) Patient with PSA >8 μg/L and Prostate Cancer will be excluded
- 8) Prostate size >60 gms

Diagnostic criteria:

Subjective Parameter : Diagnosis is made on the basis of Classical signs and symptoms of Sthulaprameha and Vatastheela or BPH with Laboratory investigations and USG report. Criteria's like Prabhuta Mutrata :-Pipasadhikyata, Kshudadhikyata, Karapadadaha, Atisweda, Night frequency, Urine incontinency, BMI >28kg/m², Blood sugar with the range of FBS 110 - 170mg /dl and PPBS 180 TO 200 mg/dl, Prostate size and volume >30ml, Residual urine volume >80ml, Urine Flow and Initiation.

Objective parameters: Prostatic enlargement by digital and Ultrasonographic methods, BMI (kg/m²), FBS, PPBS, Lipid Profile, Urine Flow and Initiation.

Posology and intervention:

- Drug -Eranda Patra Kshara 1000mg + Hingu 500mg
- Anupana- Sukoshna jala
- Frequency Twice daily in divided dose before meals (EPK – 500mg + 250mg *Hingu*)

- Duration- 45 days
- Diet- As recommended (A low calorie, balanced diet chart will be prepared and provide to the patients)
- Exercise- Cardiovascular exercises (Brisk walk for 30 min once daily in early morning).

Investigations^[8]:

- FBS, PPBS,
- Lipid Profile :-
- Cholesterol Total, HDL Cholesterol, Triglycerides (TGL),
- Abdominal Ultrasound

Assessment of result:

The Subjective and Objective parameters of base line data to pre medication and post medication were compared for assessment of result. All the result will be analyzed statistically in terms of mean score (X), Standard deviation (S.D.), Standard error (S.E.), and "P" value using unpaired and paired "t" test.

RESULTS:

Clinical study has been 20 registered cases of *Sthulaprameha* and *Vatastheela* each patient was analyzed on the basis of subjective and objective parameter during the course of treatment.

SI.No	Age group	No of Patients'	Percentage
1	50 to 55 years	3	30%
2	56 to 65 years	8	33.44%
3	66 to 75 years	9	36.66%
Total	·	20	100%

Table 1: Distribution of the patients on the basis of age group

The observation shows that the maximum number of the patients were in the age group of 66 to 75 years, i.e. 36.66 %, followed by 33.44 % of the age group 56 to 65 years and 3 patients were in the age group of 50 to 55 years.

SI.No	Symptomes	Total	Percentage
1	Prabhuta Mutrata	16	80%
2	Pipasadhikyata	12	60%
3	Ksudhadhikyata	09	45%
4	Karapadadaha	15	75%
5	Atisweda	11	55%
6	Urine flow and initiation symptoms	18	90%

Table – 3. Showing weight of Sthulapramehi in 20 registered case

SI.No	Weight in KG	Total	Percentage
1	70 to 80	01	5%
2	81 to 90	02	10%
3	90 to 100	13	65%
4	100 to 110	04	20%

Table – 4. Showing incidence of BMI in 20 registered cases

SI.No	BMI Kg/m ²	Total	Percentage
1	25 to 29.9 Over weight	01	5%
2	30 to 39.9 Obese	08	40%
3	> 40 Very Obese	11	55%

Table – 5. Effect of therapy on Subjective Parameter

SI.No	Symptomes	Percentage	SD	P-Value
		of relief		
1	Prabhuta Mutrata	68.96%	0.487	0.001
2	Pipasadhikyata	82.60%	0.593	0.001
3	Ksudhadhikyata	89.47%	0.743	0.001
4	Karapadadaha	66.66%	0.560	0.001
5	Atisweda	75%	0.534	0.001
6	Urine flow and initiation symptoms	83.33%	0.816	0.001

Table – 6. Effect of therapy on Objective Parameter

SI.No	Symptomes	Percentage	SD	P-Value
		of relief		
1.	Body Weignt	6.05%	1.887	0.001
2.	BMI	5.55%	0.763	0.001
3.	Urine Residual Volume	2.10%	0.774	0.001
4.	Prostate Size	3.04%	1.207	0.001
5.	FBS	3.40%	1.373	0.001
6.	PPBS	6.31%	1.032	0.001
7.	HDL	9.61%	6.478	0.02
8.	LDL	18.89%	20.398	0.01
9.	Serum Cholesterol	17.73%	27.187	0.001
10.	Serum Triglyceride	23.68%	38.634	0.001
11.	VLDL	30.10%	9.445	0.01

OVERALL EFFECT OF THERAPY :

Prabhuta Mutrata:

Here before treatment *Prabhuta Mutrata* mean was 3.2 and after it was 0.75 and Among 20 patients 16 patients were having symptom of *Prabhuta Mutrata*. The most important presenting sign of *Prabhuta Mutrata*. This Symptom is the most conclusive sign of the both the disease. Regarding the effect of therapy, very significant result was

Sthulapramehi w.s.r. to Vatastheela (BPH) - Pilot study. Jour. of Ayurveda & Holistic Medicine, Vol.-XI, Issue-II (Feb. 2023).

seen in 68.98%. The results were found to be Highly significant in (p<0.001). The reason for good results in patients may be due to eradicated symptom of *Prabhuta mutrata*.

Pipasadhikyata:

Here before treatment Pipasadhikyata mean was 2.6 and after it was 0.47. Among 20 patients 12 patients were having Pipasadhikyata. Thus, it may also be concluded that this symptom is also most prominent symptom in Sthulaprameha. Regarding the effect of therapy results were highly significant in case of 82.60% relief was found with statistically P-value(P<0.001).

Ksudhadhikyata :

Here before treatment *Ksudhadhikyata* mean was 0.95 and after it was 0.18. About 9 patients (45%) had this symptom. 89.47% relief was observed this is statistically highly significant with the P-value (P<0.001).

Karapadadaha:

Here before treatment *Karapadadaha* mean was 0.95 and after it was 0.12, 15 (75%) patients were having this symptom. It is commonly present in *Sthulapramehi*. Highest relief was observed in patients which was insignificant(p<0.001).

Atisweda :

Here before treatment *Atisweda* mean was 0.95 and after it was 0.2. Here 11 (55%) were having *Aruchi* symptom and 75% relief

was observed this is statistically highly significant with the P-value (P<0.001).

Urine flow and Initiation:

Here before treatment Urine flow and initiation mean was 0.97 and after it was 0.15. It was found in 19 (90%) patients. The relief was good in 83.33%. which is statistically insignificant(p<0.001).

Body weight

Here before treatment Body weight mean was 2.17 and after it was 0.17. More body weight was found all in 20 (100%) patients. The relief was good in 95%. which is statistically insignificant(p<0.001)

BMI

Here before treatment BMI was 2.05 and after it was 0.23. In all 20 (100%) patients BMI was more. The relief was good in 95%. which is statistically insignificant(p<0.001) The reason for good results may be given as the Erandapatra kshara which helps in reducing the Body weight.

Urine Residual Volume:

Here before treatment Urine residual volume mean was 0.95 and after it was 0.2. Here 11 (55%) were having this symptom and 75% relief was observed this is statistically highly significant with the P-value (P<0.001).

Prostate size:

Here before treatment Prostate size mean was 3.2 and after it was 0.75 and All 20 (100%) patients observed the increase size of

Raghavendra P., Shettar, Sangeeta H. Toshikhane. Evaluation of the effect of Erandapatra Kashara capsule in Sthulapramehi w.s.r. to Vatastheela (BPH) - Pilot study. Jour. of Ayurveda & Holistic Medicine, Vol.-XI, Issue-II (Feb. 2023). prostate. The relief was good in 83.33%. which is statistically insignificant(p<0.001). and the progression of BPH.

FBS:

Here before treatment increased FBS mean was 2.17 and after it was 0.17. increase FBS level was found all in 20 (100%) patients. The relief was good in 98%. which is statistically insignificant(p<0.001) **PPBS**:

Here before treatment increased PPBS mean was 2.05 and after it was 0.23. In all 20 (100%) patients PPBS was more. The relief was good in 95%. which is statistically insignificant(p<0.001)

Lipid Profile:

Here before treatment Lipid profile mean was 2.5 and after it was 1.2. Here 20 (100%) were finding the variation in Lipid profile and 65% relief was observed this is statistically highly significant with the P-value (P<0.01).

Totally Maximum 63.33% observed good improvement, 30% patients showed marked improvement, while 6.66% patients showed marked improvement.

DISCUSSION:

Prevalence of Sthulaprameha with Vatastheela patients are more found in old age patients. Due to the avarana of the vata. Diabetes and Obesity have found a positive correlation between fasting glucose level and the progression of BPH. A positive correlation has also been shown between hyperlipidemia

Eranda patra kshara is described in Bhaishyaja Ratnavali. and it is specially indicated for the treatment of sthulapramehi with BPH, because Eranda patra kshara is having the properties like Tikshna, Ushna, Katu rasa and tikta rasatmaka. and also having the special properties like Lekhana, Medhoghna and Kaphahara. so whole combination acts to breakdown the vicious cycle of samprapti of Sthulapramehi and vatastheela (BPH) For sroto shodhanartha Hingu is added in eranda patra kshara churna. Hingu having special properties of Vatashamana, hence this churna was selected for the present study and administered to treat the Sthulaprameha with BPH.

Maximum patients belonged to the age of 55 years and above shows Sthulaprameha and BPH. maximum patients were in all the community who are in sedentary lifestyle, who do not concentrate on health and specially Diwaswapna which may lead to Sthulapramehi and in future days terns to Vatastheela. Maximum patients have the family history, it shows that the genetically it is an important etiological factor in the development of Sthulapramehi. Maximum patients were having Vishamagni and teekshnagni is the main cause for Sthulaprameha, its due to the

Raghavendra P., Shettar, Sangeeta H. Toshikhane. Evaluation of the effect of Erandapatra Kashara capsule inSthulapramehi w.s.r. to Vatastheela (BPH) - Pilot study. Jour. of Ayurveda & Holistic Medicine, Vol.-XI, Issue-II (Feb. 2023).avarana of vayu in kostha by vitiation ofCONCLUSION :Kapha and meda.Erandapatra kshara showed maximum

Effect of trial on Subjective Parameter :

The effect of *Erandapatrakshara* symptomatically providing highly significant (p <0.001) result with marked relief in symptoms like *Prabhutamutrata, Avilamutrata* and Urine flow and initiation also, Moderate relief in *Ksudha Karapada daha* and *atisweda*.

Effect of trial on Objective Parameter :

In the *Erandapatrakshara* result were highly significant and reduction was observed in Weight, BMI, Urine residual volume, Prostate size, FBS, PPBS provided highly significant (0.001) and significant reduction in Lipid profile. Considering the effect of *Erandapatrakshara*.

Overall effect of Therapy :

Erandapatra kshara has the properties Katu, Tikta, Kashaya rasa, Ushna virya, Ruksha, Ushna, Lekhana, Medoghna Guna, Katu vipaka causes Dipana, Pachana, and digest Ama thus clears the Margavarodha of Medovahasrotas. By the all above character of Kapha, Vata shamaka. Thus brings these two doshas Medoghna, Pramehaghna, and inturn reduce the size of BPH by Lekhana property. Among 20 patients of Sthulaprameha with Vatastheela given a good results like marked improvement in 60% of patients, Moderate improvement in 33.33% patients and 6.66% patients were found mild improvement result.

bercentage relief in all the Subjective and Objective parameters. It can be said that *Erandapatra Kshara* more effective control all the parameter due to its highly *Tikshna*, *Ushna, Katu rasa* and *tikta rasatmaka Lekhana, Medhoghna* and *Kaphahara* properties. I conclude that the *Eranda patra kshara* can be used in the regular treatment of Sthulapramehi with BPH.

REFERANCES:

 Yadavji Trikamji Acharya (editor).
 Commentary : Ayurveda Deepika of Chakrapani on . Charaka samhita of Chikitsasthana, chapter 6 / 15 p443, verse no 54, 2nd edition, Varanasi : Choukambha Sanskruta Samsthana; 2002:174

R.Vidyanatha (editor). Astanga Hridaya,
 Sutra Sthana, Chapter : Doshopkramaniya
 Adhyaya. 9th edition,. 29. Varanasi:
 Chaukhambha Sanskrit Sansthan;
 2008;133. [Google Scholar] [Ref list]

Bourke JB, Griffin JP. Hypertension, diabetes mellitus, and blood groups in benign prostatic hypertrophy. Br J Urol. 1966;38:18–
 [PubMed] [Google Scholar] [Ref list]

 Egan KB. The Epidemiology of Benign Prostate Hyperplasia Associated with LUTS : Prevalence and Incidence Rates. Urol Clin North Am (2016) 43;289-97

5. Google search, http://www.anglefire.com/ar/laproscopy/Obe sity.html-60k cache similar pages.

6. Yadavji Trikamji Acharya (editor). Sushruta
Samhita, Uttara tantra, Chapter 58/3-4,
Choukambha Surbharati Prakashana;2008;787
7. Kaviraj Ambikadatta Shastri, (editor).
Bhaisajyaratnavali Samhita, Medoroga Chikitsa
chapter -39, sloka-20, 16th edition;

Chawkhamba Sanskrit Sansthan Varanasi; 2002; 526

Dennis LK, Eugene B, Anthony SF, Stephen
 LH, Dan LL, Jameson JL, editors. 16th ed. Vol.
 New York: McGraw-Hill; 2005. Harrison's
 Principles of Internal Medicine; 2153.

CITE THIS ARTICLE AS

Raghavendra P. Shettar, Sangeeta H. Toshikhane. Evaluation of the effect of Erandapatra Kashara capsule in Sthulapramehi w.s.r. to Vatastheela (BPH) - Pilot study. *J of Ayurveda and Hol Med (JAHM)*. 2023;11(2):12-22 **Conflict of interest:** None **Source of support:** None