

A Comparative Clinical Study on the Efficacy of *Madhukadi Choorna* and *Shweta Bhasma* in *Shweta Pradara*

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Abstract

Background: In *Ayurvedic* literature, regarding the *Shweta Pradara*, there is no separate chapter allotted in *Brihatrayee*, but all *Acharyas* of *Brihatrayee* have described *Shweta Pradara* in term of *Yoni Srava* as a symptom in many *Yoni Rogas*. *Shweta Pradara* is a condition characterized with white vaginal discharge may or may not be associated with pain, burning sensation and discomfort. Thus it seems to be a description of leucorrhoea

Aims and Objectives: Clinical evaluation of the comparative efficacy of the *Madhukadi choorna* and *Shweta Bhasma* in specific cases of *Shweta Pradara*.

Study Design: It is a random comparative clinical study which will be conducted on two groups with 10 patients each who will complete the treatment all along the study period. The patients will be selected from the Out Patient department of DGMAMC&H (Shri Danappa Gurusidappa Melmalagi Ayurveda Medical College, Hospital and Research Centre, Gadag for respective clinical trial.

Assessment Criteria: Based on the subjective and objective parameters like Yoni srava, Yoni Vedana, Yoni Kandu, Vaginal smear, Vaginal pH etc. the Criteria of assessment are set aside.

Results and Interpretations: Among both the groups, Group 'A' responded well to the treatment and Group 'B' responded satisfactorily. It is well understood based on the mode of action of the individual constituent of both the compound formulations.

Keywords

Shweta, Pradara, Bhasma, Choorna, Leucorrhoea, Madhukadi



Greentree Group

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INTRODUCTION

In Vedas¹ there is a mentioning of krimis, which cause the injury to the uterus via Vagina. No reference is available regarding *Swetapradara* from the Atharvaveda, the authentic source of Ayurveda. In *Ayurvedic* literature, regarding the *Shwetapradara*, there is no separate chapter allotted in *Brihatrayee*, but all *Acharyas* of *Brihatrayee* have described *Shwetapradara* in term of *Yoni Srava* as a symptom in many *Yoni Rogas*^{2,3,4}. Commentator Chakrapani has explained the word *Pandura-Asrigdara* (Pale vaginal discharge) as *Shweta pradara* (leucorrhoea) in his commentary⁵. *Acharya Sharangadhara*⁶, *Yogaratanakara*⁷ have used the word *Swetapradara* for white vaginal discharge.

Shweta pradara is a condition characterized with white vaginal discharge may or may not be associated with pain, burning sensation and discomfort, thus it seems to be description of leucorrhoea⁸. Leucorrhoea a white discharge from the vagina that may be physiological or pathological and may also be noticed without any disease. Due to excessive indulgence of dietetic and behavioral regimen capable of vitiating Vata, Pitta and Kapha, a woman may suffer

from specific gynecological disorders having vaginal discharge as a symptom along with other symptoms like itching vulva. Due to consumption of congenial and non-congenial tastes together, all the three doshas situated in reproductive system get vitiated and produce their specific symptoms. Sometimes discharge becomes profuse, not pure white, but is grey white, yellow or green, brown or rusty in color and an itching vulva follows, which found in various gynecological disorders as per ancient classics.

AIMS AND OBJECTIVES

Evaluation of efficacy of *Madhukadi Choorna* in selected cases of *Shweta Pradara*.

Evaluation of efficacy of *Shweta Bhasma* in selected cases of *Shweta Pradara*.

Comparison of the Efficacy of both Madhukadi Choorna & Shweta Bhasma in cases of Shweta Pradara.

Preparation of trial drug

- i) Preparation of *Madhukadi Choorna*^{9,10}

The formulation *Madhukadi Choorna* consists of the following ingredients.

Yashtimadhu Choorna : 48parts
Haridra Choorna : 48parts
Vanga Bhasma : 1part

ii) Preparation of Shweta Bhasma^{11,12}.

White egg shells or external covering of hen's egg were collected from the market, later subjected to the following procedures:

- *Shodhana of kukkutanda twak*¹³: The egg shells were washed in hot water and cleansed. The cleansed egg shells were purified by soaking them in Ammonium chloride liquid solution for 5-6 days and were washed again with hot water.
- *Marana of kukkutanda twak*¹⁴: The powder of *Shodhita kukkutatwak* was prepared and then triturated with juice of *Aloe Vera*. Later *chakrikas (pellets)* were made and one *kukkuta puta* was given. Hence the bhasma was obtained.

Note: The bhasma prepared did not consist of Hingula. The bhasma was made without the addition of Hingula during the procedure.

METHODOLOGY

Clinical Study

The Random Comparative Clinical study was conducted to assess the efficacy of drugs under trial. In the study *Madhukadi Choorna* was administered along with *arka patra swarasa as anupana* to 10 pts in Group A and Shweta Bhasma with Madhu was administered to 10 pts in Group B considering its efficacy in Shweta pradara.

Selection of the Patients

a) Source of data

Twenty patients of Shweta pradara with confirmed diagnosis were taken randomly for a group trial from the OPD & IPD of DGMAMC & Hospital, Gadag. The patients were randomly divided into two groups i.e. Group A & Group B with 10 patients each.

Group A- Administration of Madhukadi Yoga with Arka patra swarasa for 30 days with specific follow-up

Group B- Administration of Shweta Bhasma with Madhu for 30 days with specific follow-up

b) Inclusive Criteria

- 1) Age between 20-40 yrs
- 2) Chronic leucorrhoea (> 2 months)

c) Exclusive Criteria

- 1) Pregnancy and lactation.
- 2) Pelvic inflammatory disease.
- 3) Abnormal Pap smear.

- 4) Abnormal uterine bleeding.
- 5) Local gynecological causes like ovarian cyst, prolapse, fibromyoma polyps.
- 6) Systemic disease, including severe anemia and HIV.
- 7) Patients with STD's.
- 8) Use of hormones or Intra uterine devices.

Research Design

Duration and method of administration of the drug

Study Duration:

Group A- 30 days with specific follow up.

Group B- 30 days with specific follow up

Mode of administration: Oral administration of both the formulations.

Dosage and Anupana:

Group A- 125mg (Tid)-Madhukadi Yoga with arka patra swarasa.

Group B- 1 Ratti (125mg bid)-Kukkutandatwak bhasma with madhu

Follow up study:

Group A & Group B- 7th, 14th, 21st and 30th day.

Interventions

- The patients assessed before and after treatment as per assessment criteria.

- The nature of the study was clearly explained to the patients in detail and pre-treatment consent was taken
- The data maintenance was confidential.

Investigations

1. Blood – Hb %, TC, DC, ESR.
2. Urine – Albumin, Sugar, Microscopic.
3. Vaginal smear.
4. Vaginal pH, if required.

Criteria for the Assessment of Results:

Criteria of assessment were set aside on the basis of relief in the signs and symptoms of *Shweta pradara*. For this purpose, vaginal smear and vaginal ph (if required) values were scored in following scoring pattern.

Assesment of overall effect of the treatment

1. Well Responded = Relieved by all symptoms (*Srava, Vedana and Kandu*)
2. Moderately Responded = Relieved by any of the two among three symptoms.
3. Poor response = Relieved by any one among three symptoms.
4. Not Responded = Not relieved by any of the symptoms.

Table 1 Showing the subjective and objective parameters for the assessment.

<p>1) Yoni srava (Discharge)</p> <p>Gr-O No discharge</p> <p>Gr-1 Mild- Persistent moistness of Vulva</p> <p>Gr-2 Moderate- Need to change the undergarments frequently</p> <p>Gr-3 Severe-Need to use an extra cloth or pad</p> <p>2) Yoni Dourgandhya</p> <p>Gr-O No smelling</p> <p>Gr-1 Mild-Smell felt at the time of changing garments</p> <p>Gr-2 Moderate- Smells slight out side</p> <p>Gr-3 Severe- Occasionally fouds smelling</p> <p>Gr-4 Extreme-Persistent foul smelling</p> <p>3) Yoni Kandu</p> <p>Gr-O No itching</p> <p>Gr-1 Occasionally itching</p> <p>Gr-2 Mild itching</p> <p>Gr-3 Moderate – present but did not affect day-to-day work</p> <p>Gr-4 Severe – Continous kandu, which affects day-to-day work</p>	<p>4) Yoni Vedana</p> <p>Gr-O No pain</p> <p>Gr-1 Mild pain – no medicinal requirement</p> <p>Gr-2 Moderate – Persistent pain</p> <p>Gr-3 Severe – continuous pain – requires Medicine</p> <p>G-4 Extreme – pain continuous with abdominal cramps</p> <p>5) Yoni Sheetatwa</p> <p>Gr-O Coldness not felt</p> <p>Gr-1 Coldness felt</p> <p>Gr-2 Romaharsham</p> <p>Gr-3 Ushna Kamitwam</p> <p>6) Vrana (Ulcerations)</p> <p>Gr-O No Ulcerations</p> <p>Gr-1 Mild-Petechial Ulcerations</p> <p>Gr-2 Moderate- Indurate Ulcers</p> <p>Gr-3 Severe- Ulcers with discharge</p> <p>7) Vaginal Smear</p> <p>Gr-O Negative (No abnormal findings)</p> <p>Gr-1 Inflammatory smear</p> <p>Gr-2 Inflammatory smear with monaliasis</p>
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OVER ALL ASSESSMENT OF PARAMETERS

Subjective Parameters

Yoni Srava

Table 2 Showing the distribution of the patients by degree of Yoni srava before and after treatment in Group A & Group B:

S. No.	Degree of Yoni Srava	Group A				Group B			
		BT	%	AT	%	BT	%	AT	%
1	Grade – 0	0	0	6	60%	0	0	7	70%
2	Grade – 1	6	60%	3	30%	8	80%	3	30%
3	Grade – 2	2	20%	1	10%	2	20%	0	0
4	Grade – 3	2	20%	0	0	0	0%	0	0

Table 3 Showing the distribution of the patients by degree of Yoni dourgandhya before and after treatment.

S.No.	Degree of Yoni Dourgandhya	Group A				Group B			
		BT	%	AT	%	BT	%	AT	%
1	Grade – 0	4	40%	6	60%	4	40%	8	80%
2	Grade – 1	3	30%	3	30%	2	30%	1	10%
3	Grade – 2	2	20%	1	10%	2	15%	1	10%
4	Grade – 3	0	0	0	0	0	0	0	0
5	Grade – 4	0	0	0	0	2	15%	0	0

Yoni kandu**Table 4** Showing the distribution of the patients by degree of Yoni kandu before and after treatment.

S. No.	Degree of Yoni Kandu	Group A				Group B			
		BT	%	AT	%	BT	%	AT	%
1	Grade – 0	0	0	6	60%	0	0	7	70%
2	Grade – 1	3	30%	1	10%	4	40%	2	20%
3	Grade – 2	3	30%	1	10%	4	40%	1	10%
4	Grade – 3	2	20%	1	10%	1	10%	0	0
5	Grade – 4	2	20%	1	10%	1	10%	0	0

Yoni Vedana**Table 5** Showing the distribution of the patients by degree of Yoni vedana before and after treatment.

SL.No	Degree of Yoni Vedana	Group A				Group B			
		BT	%	AT	%	BT	%	AT	%
1	Grade – 0	0	0	5	50%	1	10%	5	50%
2	Grade – 1	6	60%	4	40%	7	70%	4	40%
3	Grade – 2	3	30%	1	10%	2	20%	1	10%
4	Grade – 3	1	10%	0	0	0	0	0	0
5	Grade – 4	-	-	-	-	0	0	0	0

Yoni Sheetatwa**Table 6** Showing the distribution of the patients by degree of Yoni sheetatwa before and after treatment.

SL.No	Degree of Yoni Sheetatwa	Group A				Group B			
		BT	%	AT	%	BT	%	AT	%
1	Grade – 0	5	50%	8	80%	5	50%	8	80%
2	Grade – 1	5	50%	2	20%	5	50%	2	20%

3	Grade – 2	0	0	0	0	0	0	0	0
4	Grade – 3	0	0	0	0	0	0	0	0

Vrana**Table 7** Showing the distribution of the patients by degree of Vrana before and after treatment.

S. No.	Degree of Yoni Vrana	Group A				Group B			
		BT	%	AT	%	BT	%	AT	%
1	Grade – 0	7	70%	9	90%	8	80%	9	90%
2	Grade – 1	3	30%	1	10%	2	20%	1	10%
3	Grade – 2	0	0	0	0	0	0	0	0
4	Grade – 3	0	0	0	0	0	0	0	0

Objective Parameters**Vaginal pH****Table 8** Showing the distribution of the patients by degree of vaginal pH before and after treatment.

S. No.	Degree of Yoni Sheetatwa	Group A				Group B			
		BT	%	AT	%	BT	%	AT	%
1	3 – 4	0	0	1	10%	0	0	2	20%
2	4 – 5	1	10%	5	50%	1	10%	6	60%
3	5 – 6	2	20%	3	30%	2	20%	1	10%
4	6 – 7	6	60%	1	10%	4	40%	1	10%
5	7 – 8	1	10%	0	0	3	30%	0	0

Vaginal Smear**Table 9** Showing the distribution of the patients by degree of Vaginal Smear before and after treatment.

S. No.	Degree of Yoni Sheetatwa	Group A				Group B			
		BT	%	AT	%	BT	%	AT	%
1	Grade – 0	1	10%	5	50%	0	0	7	70%
2	Grade – 1	2	20%	4	40%	6	60%	0	0
3	Grade – 2	7	70%	1	10%	4	40%	3	30%

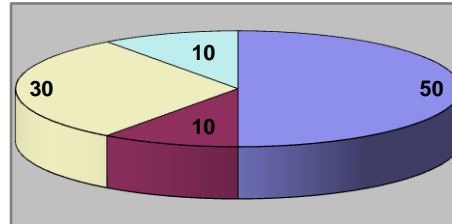
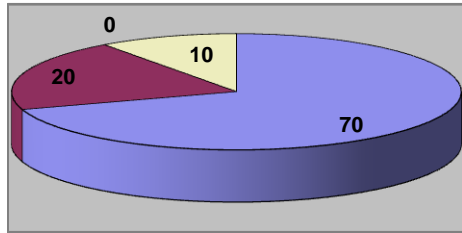
Table 10 Showing the analysis of data in percentage

Well Responded [Relieved by all symptoms(Srava, Vedana and Kandu)]	50%
Moderately Responded [Relieved by any of the two among three symptoms]	10%
Poor response [Relieved by any one among three symptoms]	30%
Not Responded [Not relieved by any of the symptoms]	None

Statistical Analysis

Pie Diagram 1 and 2 showing the comparative statistical analysis of Madhukadi choorna and Shweta

Bhasma



DISCUSSION

Probable mode of action of Madhukadi yoga:

Madhukadi yoga is a reference from Rasatantra sarasangraha, Pradarachikitsa adhyaya. It consists Choorna of Haridra and Yashtimadhu along with Vanga Bhasma.

Yashti is kaphahara and *vranaropaka*¹⁵. It is anti-exudative in nature.

Haridra is kaphahara and kanduhara. It is tikta and katu rasa pradhana being ruksha and laghu guna¹⁶

As a matter of fact Vanga Bhasma has been on clinical trial several times for the treatment of sweta pradara. It is Laghu, Ruksha, Tikta, Ushna and Kaphahara. It is Krimighna and is indicated in *pradara roga*^{17, 18}

Arka possessing *ushna guna* is *kaphanisaraka*¹⁹

Probable mode of action of kukkutanda twak bhasma:

Swetanda bhasma is effective in various streerogas. From the dosha view point it is effective in the kaphaprakopa and vatavikara. This CALCIUM based formulation is classically mentioned for the chikitsa of pradara. It acts on the Arthavaha srotas of females & is shleshmahara in guna²⁰.

Madhu as anupana is astringent in anurasa, ruksha in gunas and does vrana ropana. It alleviates all doshasa²¹.

CONCLUSION

Shweta pradara can be correlated with leucorrhoea. This is characterized by a discharge from the genital tract. It is often associated with the genital tract by some organisms, metabolic and hormonal disturbances which are responsible for the disease.

- It is caused by the vitiation of kapha dosha.
- The trial drugs utility is based on the fact that it directly acts on Kapha dosha & the female reproductive system. Undoubtedly from this fact the drug efficacy over the disease could be inferred.

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