



## A COMPARATIVE CLINICAL STUDY TO EVALUATE THE EFFICACY OF *JEERAKAWLEHA* AND *YASTIMADHU CHOORNA* IN THE MANAGEMENT OF *ASRUGDARA*

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<https://doi.org/10.46607/iamj0911112023>

(Published Online: November 2023)

Open Access

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Article Received:09/10/2023 - Peer Reviewed: 25/10/2023 - Accepted for Publication: 10/11/2023.



### ABSTRACT

Women is endowed with energy of procreation for which menarche is the first step. Menstrual cycle commences with this and ends with menopause and having normal menstruation depicts the wellbeing of female. In normal menstruation the duration of menstruation is about 4-5 days, and the amount of blood loss is estimated to be 20-80ml with an average 35 ml. Due to *pradirana*(excessive excretion) of *raja* (menstrual blood), it is named as *pradara/asrugdara*. *Asrugdara* characterized by excessive prolonged menstrual or intermenstrual bleeding due to *Pradirana* (excessive excretion) of *raja* (Menstrual blood), it is named as *Pradara* and or *Asrugdara*. As heavy menstrual bleeding is a debilitating disorder, the woman requires rapid, safe and effective treatment. In *ayurvedic* classic a variety of treatments in the management of *asrugdara* has been described. Out of them, the subject is selected to compare efficacy of *Jeerakavaleha* mentioned by *Yogratnakara*, with effect of *Yastimadhu choorna* mentioned by *Bhavaprakasha* which is already proved in the previous study. *Jeerakavaleha* has *Gerbhashya-shodhaka*, *stambhaka*, *raktapittahara* property.

**Keywords:** *Pradara/asrugdara* , *raja* , *Jeerakawaleha* , *Yastimadhuchoorna*.

## INTRODUCTION

Excessive vaginal bleeding is associated with considerable health consequences and its impact on the social and psychological wellbeing of women. Excessive uterine bleeding is managed with Hormone therapy with associated side effects, and if unsuccessful is followed by surgical intervention. Dilatation and Curettage are best temporary treatment with limited efficacy. About 40-50% Of North American women had a hysterectomy for benign reasons, or Menorrhagia. *Charaka* and *Chakrapanisay* that increased *Rakta*(blood) get mixed with *Raja* (Menstrual blood), thus quantity of *Raja* increased<sup>4</sup>. One of the most common problems faced by women is excessive and prolonged bleeding during menstruation. Various reports suggest that 30-50% of women in the reproductive age group suffer from excessive and irregular uterine bleeding by various causative factors. 28% of the female population consider their menstruation excessive and will plan their social activities around their menstrual cycle, and nearly 10% employed women will need to take off from work because of excessive menstrual loss. Excessive uterine bleeding is managed with Hormone therapy with associated side effects, and if unsuccessful is followed by surgical intervention. Dilatation and Curettage are best temporary treatment with limited efficacy. Due to limitation of medical therapy modern science, becomes the necessity of the time to find out ineffective, harmless therapy to manage the condition. In *Ayurveda* so many drugs described in treatment of *Asrugdara* so subject entitled “A COMPARATIVE CLINICAL STUDY TO EVALUATE THE EFFICACY OF JEERAKAWLEHA AND YASTIMADHU CHOORNAIN THE MANAGEMENT OF ASRUGDARA” have been selected.

### AIM AND OBJECTIVES

**AIM:** To compare the efficacy of *Yastimadhu choorna* and *Jeerakawaleha* in the management of *Asrugdara*.

### OBJECTIVES –

1. To compare the effect of *Jeerakawaleha* with *Yastimadhuchurnain asrugdara*.

2. To review the literature of *asrugdara* ayurvedic aspect as well as modern aspect of DUB.

### Materials and methods-

#### Drug preparation-

On the basis of description of classical texts many preparations are

found. Their methods of preparation are the same, but these differ on the basis of stages of preparation. The preparations are *Phanita*, *rasa kriya*, *leha*, *avaleha* and *Ghana*. These are secondary preparations as for those either decoction or juice is processed further to make this into semisolid or solid consistency. In some of preparations sweet substances like sugar, jiggery, honey, and aromatic materials and also Ghee or oil added to make those more palatable and long shelf life.

*Jeerakawaleha* contains.

Paste of jeeraka- 640gm

*Lodhra*- 320gm

*Godugdha*- 2560ml

*Goghrita* – 320ml

Added and cooked over low fire. Once the mixture becomes like an electuary it is removed from the fire and cooled. Now powdered sugar one prastha and powder of *Chaturjatak*, *kana*, *Vishva*, *ajaji*, *musta*, *balaka*, *dadimarasanjana*, *dhanyaka*, *rajani*, *shadavasakam*, *vamsaja* and *tawaksiri* each 24 gm as possible as available all *Prakshep dravyas* added and mixed throughly<sup>92</sup>.



*Prakshep dravyas*



Kwatha preparation



Awaleha nirman

### Standardization of Drug-

Standardization of drug was done from authentic pharmaceutical laboratory.

### Place of study-

Patient who was reported in the dept of *Prasutitantra* and *streeroga* in hospital attached to the college were selected on the basis of diagnostic and inclusive criteria.

### Selection criteria-

Minimum 60 patient diagnosed as *asrugdara* were selected for the study of *streeroga* & *Prasutitantra* dept. and divided into two groups randomly.

#### A. Inclusion criteria-

1. Age- 20-45yrs
2. Diagnosed patient of *asrugdara* without any organic pathology.
3. HB% above 8.

#### B. Exclusion criteria-

1. Patient with uterine and pelvic pathology.
2. Recent H/O Threatened, spontaneous or incomplete abortion.
3. Patient taking anticoagulant therapy if having any coagulant defects.
4. Patient with IUCD in situ or on OC pills.
5. Any suspected malignant condition of genital organs.
6. Severe systemic diseases thyroid toxicities/ anaemia/diabetes etc.

### C. Withdrawal criteria-

Patients with irregular follow-up and not ready for further participation will be discontinued. Patients which are absent for two consecutive cycles or follow up.

Randomly patients were selected as per selection criteria having symptoms of *Asrugdara* into Group A & Group B.

#### Group A- *Yashtimadhu choorna*

The patient of this group treatment was given with *Sampraman* (similar quantity) of *Yashtimadhu choorna* and *sharkara* (powdered sugar) in following dose

Dose-6gm Bid

*Anupan-Tandulodak* (20ml)

*Sevankal- bhojanottar* (after meal)

#### Group B -*Jeerakawaleha*

The patient of this treatment given with *Jeerakawaleha* in the following dose

Dose-10 gm Bid

*Anupan-Dugdha*. (milk)(80 ml)

*Sevankal- bhojanottar* (after meal)

### Duration of study-

Around -18 months

Total duration of treatment- 3 months

**Assessment Criteria-**

Table 01: Adhodara shoola-

Grade 0	Menses not painful
Grade 1	Menses painful but daily activities not hampered
Grade 2	Menses painful and daily activities are slightly hampered
Grade 3	Menses painful daily activities hampered and needs treatment

Table 02: Artava-atipravrutti

Grade 0	1-3 pads/day
Grade 1	3-4 pads/day
Grade 2	5-6 pads/day
Grade 3	More than 6 pads/day

Table 03: Grathitwa

Grade 0	No clots
Grade 1	3-4 clots
Grade 2	5-6 clots
Grade 3	More than 6 clots

Table 04: Sarvangmarda

Grade 0	No pain
Grade 1	Didn't disturbed daily routine, felt only when relaxing
Grade 2	Routines were disturbed due to pain
Grade 3	Pain disturbs daily routine as well as sleep could not be tolerated by medicated aid

**Objective criteria-**

Endometrial thickness.

**Consent of patient-** Written informed consent of the patient included in this study was taken in the language best understood to them.

**Comparison within groups-**

Table 05: Effect on Adhodarashoola-

Ashodara shoola	Mean		W(wilcoxon sign rank)	P-value	% effect	Result
	BT	AT				
Group A	1.467	0.5333	265	0.02	63.63%	Significant
Group B	1.433	0.3667	213	0.01	72.5%	Significant

Since observation is on ordinal scale Wilcox on sign rank test is used to test efficacy in group A and group B. From the above table it is observed that p-value for group A and group B are less than 0.05.hence it is concluded that effect observed in both group A and group B is significant.

Group A is 63.63% and group B is 72.5% effective. Hence group B is more effective Adhodarashoola than group A.

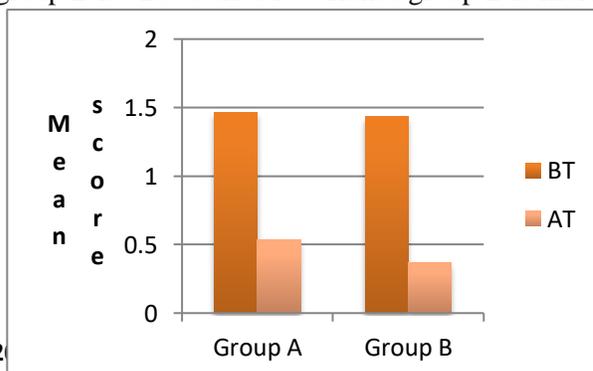


Chart 01

Table 06: Effect on *ArtavaAtipravrutti* -

Artavaati pravrutti	Mean		W(wilcoxon sign rank)	P-value	% effect	Result
	BT	AT				
Group A	1.967	0.5333	325	0.001	72.88%	Very sig
Group B	1.900	0.2000	435	0.04	89.47%	Significant

Since observation is on ordinal scale Wilcoxon sign rank test is used to test efficacy in group A and group B. From the above table it is observed that p-value for group A and group B are less than 0.05.hence it is concluded that effect observed in both group A and group B is significant.

Group A is 72.88% and group B is 89.47% effective. Hence group B is more effective on artavAtipravrutti than group A.

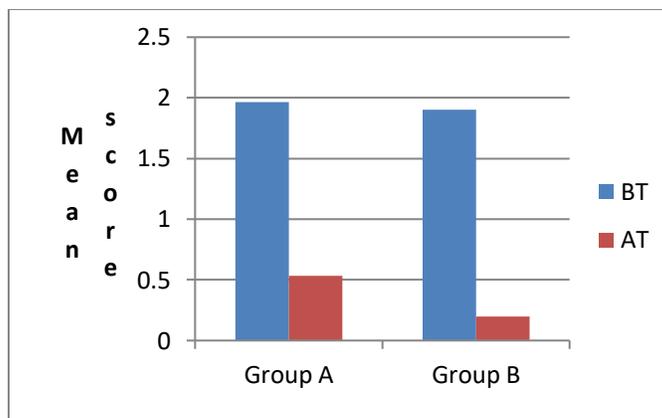


Chart 02

Table 07: Effect on *Grathitwa* -

Grathitwa	Mean		W(wilcoxon sign rank)	P-value	% effect	Result
	BT	AT				
Group A	1.567	0.600	260	0.003	61.70%	Very sig
Group B	1.586	0.206	293	0.28	87.2%	Not sig

Since observation is on ordinal scale Wilcoxon sign rank test is used to test efficacy in group A and group B. From the above table it is observed that p-value for group A is less than 0.05 but group B is more than 0.05.hence it is concluded that effect observed in group A is very significant and group B is not significant.

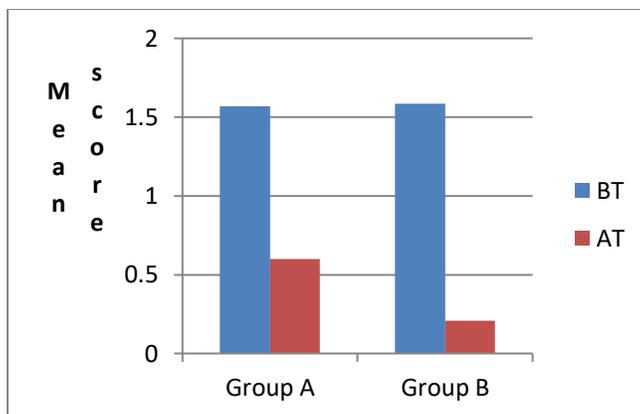


Chart 02

Table 08: Effect on sarvangmarda-

Sarvanga marda	Mean		W(wilcoxon rank)	sign	P-value	% effect	Result
	BT	AT					
Group A	1.533	0.533	229		0.1	65.21%	Not sig
Group B	1.700	0.200	378		0.001	88.23%	Very sig

Since observation is on ordinal scale Wilcoxon sign rank test is used to test efficacy in group A and group B. From the above table it is observed that p-value for group A is more than 0.05 but group B is less than 0.05 hence it is concluded that effect observed in group b is very significant and group A is not significant.

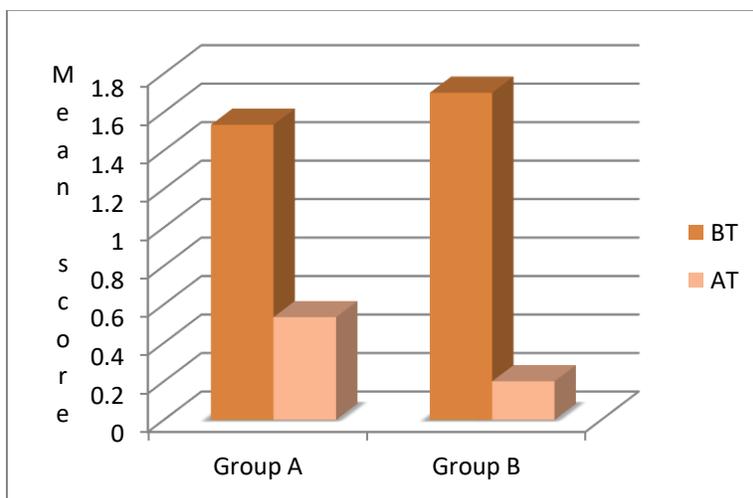


Chart 03

### Objective criteria

#### Endometrial Thickness

Table 09: Paired T-test

Endometrial thickness		Mean	N	SD	SE	t-Value	P-value	Result
Grp A	BT	12.43	30	3.01	0.55	5.18	0.001	significant
	AT	11.31	30	2.54	0.46			
Grp B	BT	12.17	30	2.60	0.47	4.74	0.003	significant
	At	10.31	30	2.01	0.36			

Since observation is quantitative, paired t test is used to test efficacy of group A and group B. From the above table it is observed that p- values for group A and group B are less than 0.05. Hence it is observed that group A and group B are significant.

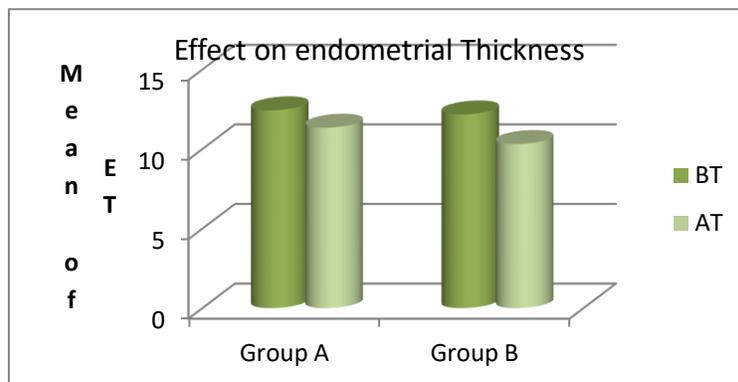


Chart 04: Comparison between two groups(Mann-Whitney U test)

### Subjective parameters-

Table 10

	Group	N	Mean	Sum of rank	Mann-Whitney U	p-value
Adhodara Shola	Group A	30	0.53	1004	361	0.09
	Group B	30	0.36	826		
Artava-Atipravruti	Group A	30	0.53	1065	300	0.01
	Group B	30	0.20	765		
Grathitwa	Group A	30	0.60	1053	312	0.01
	Group B	30	0.20	777		
Sarvang marda	Group A	30	0.55	1065	300	0.01
	Group B	30	0.20	765		

For comparison between Group A and Group B, Mann Whitney U test used. From the above it was observed that p-values for *ashodiarashool* parameter is greater than 0.05.Hence it is concluded that there is

no significant difference between group A and group B. Both groups are equally effective.

Next all parameters of group A and group B, p value is less than 0.05 hence it is concluded that there is significant difference between group A and group B.

### Comparison between two groups-

Table 11: Objective parameter-(unpaired t test)

	N	Mean	SD	SE	t-value	P-value
Group A	30	11.31	2.54	0.46	1.68	0.10
Group B	30	10.31	2.01	0.36		

For comparison between group A and group B, Unpaired t test is used. From the above it is observed that the p value is greater than 0.05. Hence it is concluded that there is no significant difference between group A and group B. Both groups are equally effective.

### Overall Effect of therapy-

Table 12

Result	Group A	% effect	Group B	% effect
Excellent	4	13.33%	24	80%
Markedly Improved	20	66.66%	5	16.66%
Improved	6	20.0%	1	3.33%
unchanged	0	0.00%	0	0.00%

**1. Adhodarshool-** Group A is 63.63% effective and group B 72.5% effective. Hence, group B is more effective than group A. Pain in lower abdomen both the groups get subsided, in comparison difference was not significant after completion of treatment.

*Adhodarashool* is due to vitiated *vata*, *jeeraka* and all *prakashap dravyas* and *ghrita* in *jeerakawaleha* has *ushna*, *snigdha*guna all opposite to *vataguna*. Hence it acts as *vatghna* and ultimately *Adhodarashool* subsides due to *vatashamana*.

**2. Artava-Atipravrutti-** Both Group A are 72.88% effective and group B 89.47% effective. Hence, group B is more effective than group A. In the *Jeerakawlehalodhra* has in higher quantity and having *stambhaka*, *Artavsthapaka*, *raktashuddhikara*, *grahi* properties. Overall *avaleha* have *pittashaman*, *vatashamanaguna* hence *artava-Atipravrutti* subsides more effectively with the use of *jeerakawaleha*.

**3. Grathitwa-** Group A is 61.70% effective and group B is 87.2 effective. Hence, group B is more effective than group A. In this study group b is treated with *jeerakawaleha* which have *garbhashaya shodhaka*, and in that included drugs are *katutiktakashay* property which reduces *sanghtana* of vitiated *rakta* dhatu and group B treated with *Yastimadhu choorna* which has *shleshmaghna* property hence it reduces *granthi-tartavpravrutti*.

**4. Sarvangmarda-**Group A is 65.21% effective and group B 88.23% effective. Hence, group B is more effective than group A. *sarvangmarda* of both the groups subsidized; in comparison difference was significant after completion of treatment. *sarvangmarda* is due to vitiated *vata*.

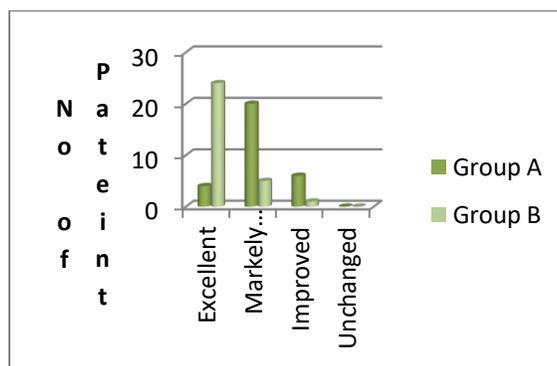
**Discussion regarding to objective parameter-**

In the present study endometrial thickness shows significant effect but comparatively both the groups are equally effective.

**Overall effect of therapy-**

Table 13: Overall Effect

Result	Group A	% effect	Group B	% effect
Excellent	4	13.33%	24	80%
Markedly Improved	20	66.66%	5	16.66%
Improved	6	20.0%	1	3.33%
Unchanged	0	0.00%	0	0.00%



#### Chart 05

Excellent results are seen in Group B that is 46.66%, markedly improved cases are more in Group B that is 41.66%, only improved cases are 11.66% and there aren't any unchanged cases were seen. That means both the groups are effective in treatment of *asrugdara*, but group B is more effective than group A.

#### Probable mode of action of drug-

*Jeeraka* and all *prakashepdravyas* in *jeerakawaleha* are *ushna*, *tikshna* and *ghrita* having *vatashamana* property. *Jeerakawaleha* is effective and easy to administer *kalpa*. This drug has *apradaranashana* property. All *prakshepa dravyas* have a *lekhana*, *deepana* and *pachana* property which helps *prakrutara sarak-tanirmiti* and Main contents of *Jeerakawaleha* are *Jeerak* and *Lodhra* have *Artavsangrahan*, *stambhaka*, *balya*, *shonitsthapan*, *garbhashay shodhaka* properties.

Secondly *Yasthimadhu* also has *Balya*, *Shonitsthapan* means *Raktashodhaka*, *raktastambhaka* and also used in *Raktapittadi vikaras*<sup>14</sup>. *Yasthimadhu choorna* in *asrugdara* is already proved in previous study.

*Jeerakawaleha* has a *Raktapittashamaka*, *vatashamaka* property; due to this property *Samprapti Bhanga* of *asrugdara* occurred and effective control and cure of *asrugdara* achieved.

*Jeeraka* is a *garbhashayavishuddhikruta*, which cleanses and detoxifies uterus to improve stretch and immunity. Cumin contains thymol, that helps promote the production of saliva, bile and another enzyme responsible for food digestion. The aromatic compound Cuminaldehyde helps to induce secretion of digestive juices just by aroma. Cumin is an anti-convective agent and is a rich source of iron. Cumin contains riboflavin, vit b6 and niacin useful in improving the cognitive functions of brain, which ultimately normalize H-P-O axis.

*Lodhra* acts as *shonitsthapan*, it also acts as anti-inflammatory action by ethanolic extract of bark. *Lodhra* has *raktapittahara*, *asrugdara*, *shothahara*, and *virechaka* properties.

*Jeerakawaleha* acts as *Deepana*, *Pachana*, *Raktashodhaka*, *Rakta stambhaka*, *Balya* and *Shothhara*, *Raktapittahara*, it also regulates the normal function of

*Apana vata*. In the pathogenesis of *Raktapradar Pitta* and *Vatta* (*Apana*) doshas, *Rasa* and *Rakta dhatus* and *Agnimandya* are main responsible factors. Hence its karma can be well understood in the disease *Asrugdara*.

*Yasthimadhu* on *asrugdara* is already a proven drug which is in *shonitsthapanagana* and having *Pit-tashamanaguna* and according to modern having antiestrogenic activity which reduces unopposed estrogen.

#### CONCLUSION

- ❖ Statistical analysis of the data obtained leads to the conclusion that *jeerakawaleha* and *yasthimadhu choorna* in the different groups are effective in the *sampraptivighatana* of *asrugdara*.
- ❖ *Jeerakawaleha* is a compound drug and *yasthimadhu choorna* is a single drug considering this studied data *Jeerakawaleha* is more effective than single drug.
- ❖ There is no significant difference in proportion to reducing ET by both therapies but statistically *jeerakawaleha* is more effective than *yasthimadhu choorna*.
- ❖ Four patients were withdrawn from study so that were replaced by patients fulfilling criteria.

#### Further scope of study-

- During this research study, 3 patients came with Excessive PV bleeding with Nausea with loose motion, but general condition was good after taking proper history there was excess consumption of *Pittaprapakopaka hetu sevanas* and was properly indicated for *virechana*.
- Then investigation was done reports where normal next plan was made for *virechana*. After completion of *virechana jeerakawaleha* was given to those patients and they get complete relief from symptom in 2<sup>nd</sup> follow up.

So, after giving classical *virechana*, *jeerakawaleha* will give best results is the further scope of study.

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**Source of Support: Nil**

**Conflict of Interest: None Declared**

How to cite this URL: *Dipali Sawale & Veena Jawale: A comparative clinical study to evaluate the efficacy of jeerakawleha and yastimadhu choorna in the management of asrugdara*. International Ayurvedic Medical Journal {online} 2023 {cited November2023} Available from: [http://www.iamj.in/posts/images/upload/2707\\_2716.pdf](http://www.iamj.in/posts/images/upload/2707_2716.pdf)