



EVALUATION OF THE EFFICACY OF LASUNADI VATI IN THE MANAGEMENT OF ARTAVA KSHAYA

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ABSTRACT

Reproductive health of female is best judged by menstrual cycle. Now a days due to change in life style; there is alterd in menstruation in different forms. Among them oligomenorrhea(delayed menstruation) or hypomenorrhea(scanty menstruation) is very common which later on affect on fertility. This symptom can be correlate with *artava kshaya* in Ayurveda.. In modern , hormonal therapy is only the option to treat it. In Ayurveda we have many dravyas which are agneya in nature are used to treat the *artava kshaya* as agneya dravya increases the artava. In this study *lasunadi vati* was taken to treat the *artava kshaya* which is agneya in nature , *vata kapha shamaka* and *pitta vardhaka* . The study was done on 30 number of patients. The drug was given for three months. After completion of treatment it shows that there is increase in amount of menstrual bleeding and interval of menstrual is regular at an interval of 28 to 30 days.

KEYWORDS : Oligomenorrhea, Hypomenorrhea, Artavakshaya, Menstrual cycle.

INTRODUCTION:

Reproductive phase is the most important phase in female life which starts with puberty. Change in physical and mental wellbeing profoundly affects menstrual cycle. All the gynecological abnormalities are described under the headings of *Yoni vyapad* and *Artava dushti* in Ayurvedic classics. Among all the menstrual disorders *artava kshaya* is common and daily counter disorder in OPD. *Artava kshaya (kshina artava)* is one of the eight types of *Artava dusti* mentioned in Ayurveda¹. *Artava kshaya* is a *Vata pittaja* disorder characterized by *Yathochit Kala Adarshanam* (untimely/irregular menstruation), *Alpata*(scanty menstrual flow) and *Yoni Vedana*(painful menstruation)². This disorder frequently affects the quality of life of in adolescents and in young adult women can be precursor of infertility and other problem, so it required attention. In conventional medicine, delayed, scanty and painful menstruation is described as oligomenorrhoea, hypomenorrhoea and dysmenorrhoea in terms of clinical features of various gynecological disorders.

These symptoms may appear as minor physiological variations to clinical presentation of serious gynecological disorders affecting fertility or general health of the woman. In *Astanga Sangraha*, *Rakta sharkara kriya*, i.e. treatment which improves or increase *Rakta* or *Artava* is mentioned to adopt for *artava kshaya*³ As it is a *VataVridhi* and *Pitta Kshaya* condition, *Vata shamak* treatment along with *Agneya dravya* is recommendable.

In this clinical study, *lasunadi vati* is selected as a trial drug for *artava kshaya*. *Maharshi Kashyap* described the efficacy of *lasuna* in *Kashyap Samhita*, *Kalpasthan*, *Lasuna Kalpa adhyaya*⁴. This study is aimed at systematic compilation, analysis and interpretation of the concepts of *artava kshaya* with the contemporary science, understanding the concepts of oligomenorrhoea, hypomenorrhoea and dysmenorrhoea from an Ayurvedic perspective and to assess the efficacy of the trial drug *lasunadi vati* in the management of *artava kshaya*.

Aims and objectives

- Evaluation of the efficacy of *lasunadi vati* in the management of *artava kshaya*.

MATERIAL AND METHOD:

Source of data:

- 30 numbers of patients suffering from oligomenorrhoea, hypomenorrhoea are selected from Prasuti tantra and

Stree Roga OPD of Govt. Ayurvedic College and Hospital, Guwahati-14.

Criteria for selection of drug:

Lasunadi vati consists of:⁵

1. Lasuna	• <i>Allium sativum Linn.</i>
2. Jiraka	• <i>Cuminum cuminum Linn</i>
3. Saindhava lavana	• <i>Black salt</i>
4. Gandhaka (suddha)	• <i>Sulphur</i>
5. Pippali	• <i>Piper longum Linn.</i>
6. Maricha	• <i>Piper nigrum Linn</i>
7. Sunthi	• <i>Zingiber officinale</i>
8. Ramatha (hingu)	• <i>Ferula northax Bioss</i>
9. Nimbu swaras	• <i>Citrus limon</i>

Most of the ingredients of *lasunadi vati* have agneya properties. *Artava* is agneya in nature. *Acharya Susruta* mentioned that *Artava kshaya* should be treated with agneya dravya For these reasons *Lasunadi vati* is selected for the management of *Artava kshaya*. Among various remedies, *Lasuna* in *pushapadusti* is mentioned in *kashyap samhita*.

Counseling and consent:

All the patients of the study were selected after proper counseling and written consent has been taken from each patient before giving the trial drug.

Selection Criteria:

- Initial selection of cases taken in first visit or at any day of the menstrual cycle.
- Bleeding, spotting less than 2 days
- Infrequent menses at interval longer than 35 days or scanty bleeding with irregular cycle for 2 to 3 cycles.
- PCO pattern ovaries and premature ovarian failure
- Reproductive age of 16 to 45 Irrespective of gravid
- Both married and unmarried women.

Exclusion criteria:

- Patient with systemic disorder like TB, Asthma, congenital abnormalities or allied disease which causes hypomenorrhea or oligomenorrhea.
- Patient with severe anaemia (Hb < 7gm/dl)
- Lactating women

Trial Methodology:

The study was performed in a randomized open trial.

Preparation of drug:

The raw drug is collected from local market and prepared to vati form in the Rashasala of Govt. Ayurvedic College, Guwahati, Assam. *Lasunadi vati* is mentioned in *Vaidya jivana, Kshaya roga Chikitsa, visuchika upachar. Lasunadi vati* is prepared as per ayurvedic formulary of india-vol 1, second revised English edition. Each ingredients was taken in equal parts, Mix together and make churna. *Bhavana* is given with *nimbu swarasa* for 3 days. Then make it in vati form. Each vati contains 500mg.

Mode of administration: Oral administration

Dosage: 1 g in two divided dose after food .

Anupana: Ushnaodaka.

Duration of treatment: 3 months

FOLLOW UP:

The patients will be followed up once after each menstrual cycle and after the completion of the course of the treatment, the next cycle will be followed up for any recurrence or improvement.

ASSESSMENT CRITERIA:

- Duration of flow
- Interval between two cycle
- Amount of blood loss
- Grade of pain
- Laboratorial investigation

PARAMETER FOR ASSESSMENT: (Grading)

I. Delayed menstrual cycle

- Delayed upto 35 days: 0
- Delayed upto 35-50 days: 1
- Delayed upto 50-65 days: 2
- Delayed upto 65-80 days: 3
- Delayed upto 80-95 days: 4
- Delayed upto 95-110 days: 5
- Delayed upto 110-125 days: 6
- Delayed upto 125-140 days: 7
- Delayed upto 140-155 days: 8
- Delayed upto 155-170 days: 9
- Delayed upto > 170 days: 10

II. Scanty menstrual bleeding (pad used per cycle)

- 12-15 pads 0
- 9-12 pads 1
- 6-9 pads 2
- 3-6 pads 3
- 1-3 pads 4
- No Pads 5

III. Duration of menstrual bleeding

- 4-5 days 0
- 3-4 days 1
- 2-3 days 2
- 1-2 days 3
- Only 1 day 4

IV. Yoni Vedana (painful menstruation)

- Present
- Absent

Duration

- No pain during whole cycle 0
- Only few hours or occasionally 1
- Only 1st & 2nd day 2
- During the whole menstrual period 3

Intensity:

- Npain 0
- Menstruation is painful and daily activity is unaffected 1
- Menstruation is painful, daily activity is affected,

- analgesic needed occasionally. 2
- Menstruation is painful and daily activity is affected. Analgesics needed regularly and affective. 3
- Menstruation is severely painful. daily activity affected. Analgesics have poor effects. 4

FINAL ASSESSMENT:

It will be based on clinical improvement of symptoms.

a) Cured-

1. Regularization of menstruation
2. Regularization in amount of flow using 3 to 4 pad per day and as per previous report after treatment of 3 cycles.
3. Absence of pain
4. Improvement in laboratorial investigation i.e in normal level

b) Improved-

- i. Increased in amount of bleeding
- ii. Reduction in length of cycle
- iii. Reduction of pain
- iv. Improvement in laboratorial investigation i.e in normal level

c) No relief- No change of symptoms and laboratorial investigation

d) Aggravated- Symptoms become more severe than before.

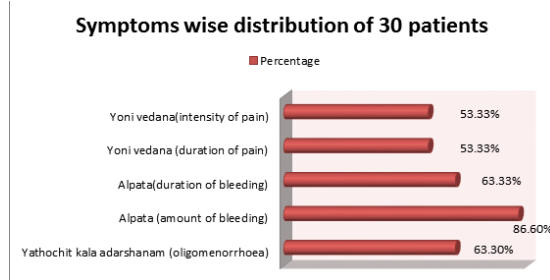
STATISTICAL ANALYSIS:

The obtained information was analysed statistically in terms of mean score (x), Standard Deviation (S.D.), Population Variance. Paired t test was carried out at the level of 0.05, 0.01, 0.001 of P levels. The results were interpreted as - P<0.05, <0.01 Significant. P<0.001 highly significant. P>0.05 Insignificant .

OBSERVATION AND RESULTS:

Table01: symptom wise distribution of 30 no of patients:

Symptom	No. of patients	Percentage
Yathochit kala adarshanam (oligomenorrhoea)	19	63.3%
Alpata (amount of bleeding)	26	86.6%
Alpata in relation to rajasravakala(duration of bleeding)	19	63.33%
Yoni vedana (duration of pain)	16	53.33%
Yoni vedana(intensity of pain)	16	53.33%



STATISTICAL REVIEW:

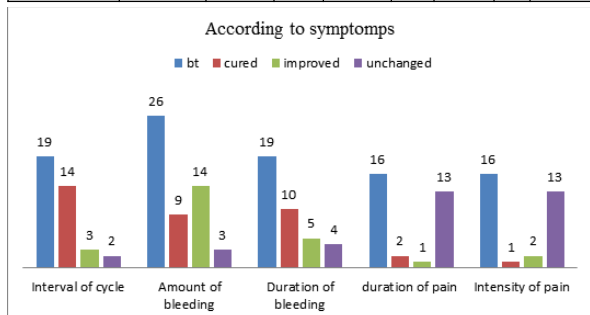
Table02: Final assessment of the trial drug on all symptoms of artava kshaya after 3 months:

Assessment criteria	\bar{X}_{BT}	\bar{X}_{AF}	SD (BT)	SD (AF)	Variance (BT)	Variance (AT)	t_{29}	P	Remarks
Duration of cycle	1.4	0.2	1.4	0.48	1.97	0.23	4.69	<0.001	H.S

Amount of bleeding	2.6	1.06	1.56	1.31	2.45	1.71	5.67	<0.001	H.S
Duration of flow	1.6	0.6	1.45	1.03	2.11	1.07	4.55	<0.001	H.S
Duration of pain	0.66	0.56	0.71	0.72	0.50	0.52	1.79	>0.05	N.S
Intensity of pain	0.60	0.50	0.62	0.62	0.38	0.39	1.79	>0.05	N.S

Table03: Number of patients cured, improved and unchanged from chief complains and associated problems.

Symptoms	Before treatment		After treatment					
	No. of patients	Percentage	Cured		Improved		Unchanged	
			N	%	n	%	N	%
Interval of cycle	19	63.3%	14	73.68%	3	15.78%	2	10.52%
Amount of bleeding	26	86.6%	9	34.61%	14	53.84%	3	11.5%
Duration of bleeding	19	63.33%	10	52.6%	5	26.3%	4	21.0%
duration of pain	16	53.33%	2	12.5%	1	6.25%	13	81.25%
Intensity of pain	16	53.33%	1	6.25%	2	12.5%	13	81.25%
Loss of appetite	18	60%	12	66.67%	2	11.11%	4	22.23%
Weight gain	10	33.33%	5	50%	-	-	5	50%
Bloating abdomen	7	23.33%	7	100%	-	-	-	-
Acne	10	33.33%	2	20%	3	30%	5	50%
Hirsutism	5	16.67%	0	0%	1	20%	4	80%
constipation	15	50%	10	66.67%	2	13.33%	3	20%
Heaviness in body	5	16.67%	5	100%	0	-	-	-
PCOD pattern on USG	20	66.67%	5	25%	10	50%	5	25%



Result:

Regarding effect of drug on oligomenorrhea and hypomenorrhea, statistically highly significant (P<0.001). It shows statistically not significant on painful menstruation (P>0.05).

Discussion:

1. Discussion on the observation of demographic profile:

In the trial it was found that maximum patients 55.33% are from age group of 15-25 years, which supports the prevalence of the disease during early reproductive life. The occurrence is very common in unmarried women. Higher incidence of

patients in students may indicate stressful working habit with lack of proper health care. Maximum patients having *artava kshaya* are non vegetarian. Among them 70% of patients had a habit of regular intake of junk foods. This may indicate a strong connection between the dietary habit and occurrence of the disease. It shows that incidence is higher in urban women than rural women. It may be an effect of life style and food habit.

2. Discussion on the probable mood of action:

- In **Ayurvedic view**, the drug acts by its *Rasa, Guna, Veerya and Vipak*.
- Almost all the *dravyas of lasunadi vati* contains *guru, snigdha, teekshna guna, ushna virya, katu vipaka*, so *vatakapha samaka* and enhances the *pitta* properties in the body.
- These drugs possess six *rasas* and act as *deepana, pachana, rasayana, ruchikara, vata anuloma* quality which helps in *amapachana, agnideepana* results in mainly *rasa dhatu vridhi* which leads to increase the *upadhatu of rasa i.e, artava*. By *vata anuloma* quality it reduces the *yoni vedana*.
- Pittakara* properties of these *dravyas* increasing the *agneyatva* of the body helps in the production of *artava*.
- That means *lasunadi vati* is *vatakapha shamaka, pitta vardhaka* and *atava janana*.
- In **modern view**, the drug acts by its phytoestrogenic, anti inflammatory, anti spasmodic properties.
- Due to phytoestrogen it produces sufficient amount of estrogen which make endometrium thick and leads to sufficient amount of bleeding during menstruation.
- Due its lipolytic activity, in fatty girl peripheral conversion of androgen to estrogen becomes appropriate which helps in thickness of endometrium.
- It has hypoglycemic effects which help in prevention of insulin resistance thus effect in PCOD patients.
- Due to its digestive and carminative effect it helps to correct the nutritional deficiency helps in proper menstruation.
- Due to its antispasmodic effect it may reduce the painful menstruation.

Propable mood of action of ushnodaka:

- Deepana* property of warm water causes expansion of *srotas* carrying digestive juices, thus increasing their flow, resulting in proper digestion.
- Boiling water changes its nature, making it lighter and changes its potency from cold to warm. By boiling the drinking water for 5 minutes the properties of the element of fire are incorporated, which magnifies the properties of the water. This sharpness allows it to cleanse the channels and penetrate deeper levels of the physiology to hydrate the tissues, and thus it becomes easier for the body to flush out toxins and impurities.

3) Discussion on the results:

- In case of oligomenorrhea 73.68% patients were cured, hypomenorrhea in relation to amount of bleeding 34.61% patients were cured, hypomenorrhea in relation to duration of bleeding 52.6% patients were cured, dysmenorrhea in relation to duration and intensity of pain only 11.7% and 6.25% were cured respectively.
- It shows good result in oligomenorrhea than hypomenorrhea than dysmenorrhea.
- It shows that in constitutional, nutritional and stress related oligomenorrhea and hypomenorrhea, less effective.
- In these cases corrections of errors in diet, working condition, home environment and the use of leisure is recommender.
- More over yogic approach and proper counselling is very essential.

- Present study reveals that there were significant improvement in all cardinal features of artava kshaya i.e. oligomenorrhoea and hypomenorrhoea

4) Discussion on the associated problems:

It shows very good result on loss of appetite and heaviness on body. It is observed that the patients who took regular drugs along with physical exercise and intermittent fasting, they losted their weight and thus helped in regular menstruation on over weight patients. Most of the patients who were suffered from polycystic ovarian syndrome; their ovarian volume was reduced gradually. In most of the patients acne were gradually reduced and it was noticed the glow on their face. Along with drugs it was advised to follow proper dietary habit and life style modification. Also advised to do proper yogasana which reduces the stress along with helps in proper blood circulation in pelvic area and thus helps in many menstrual disorder.

Adverse effects

- No any severe adverse effects or toxicity of the drug was noticed in patients during or after the trial.
- 2 patients having thin build having complain of giddiness due of blood pressure. Further study is needed on it.

CONCLUSION:

- Further study on larger sample with assessment of biochemical and experimental parameter are needed for more precise conclusion of the drug in order to establish its efficacy in *artava kshaya*
- The Trial drug "*Lasunadi vati*" with a short span of research with limited facilities have given an impression that the research drug is very effective in *artava kshaya*. Hence, the long-term benefits of the drug should be evaluated.

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