

A CLINICAL STUDY TO EVALUATE THE EFFICACY OF *HINGWADI TAILA* IN THE MANAGEMENT OF *ARTAVAKSHAYA*

Monika Sharma¹, Vandana Baranwal²

¹PG Scholar, ²Professor

Dept of PTSR, AAMC, Moodbidri, Dakshina Kannada, Karnataka, India

Email: drmonikapnsharma@gmail.com

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ABSTRACT

Menstruation is an essential physiological phenomenon characterizes womanhood, encompassing about 32 to 38 years of her life i.e. the reproductive age. A healthy menstrual cycle is of paramount importance in many ways for the women and for the society because health of the society depends on the health of its women. Nowadays menstrual abnormalities are very common in society, out of 80.7% women suffering from menstrual irregularities, 19.3% are suffering from oligomenorrhoea. *Artavakshaya* is explained by *Acharya Sushruta* which is caused by the *avarana* of *kapha* over *vata* and qualitative *kshaya* of *pitta* characterized by reduced blood flow in amount as well as in duration and increased interval between two menstrual cycles. A clinical trial was carried out on 20 patients diagnosed with *artavakshaya* aged between 16-35 years having complaints of prolonged inter menstrual period, scanty menstruation and pain during menstruation. They were administered with *Hingwadi taila* for 3 months in a dose of 5ml twice a day with cow milk starting from the 5th day of menstruation. Clinical assessment was done on 5th day of each menstrual cycle for three cycles. The study discloses the effect of *hingwadi taila* on interval of menstruation, duration of menstruation, amount of blood flow and pain during menstruation which were highly significant in clinical study.

Keywords: *Artavakshaya*, menstruation, oligomenorrhoea, hypomenorrhoea, *hingwadi taila*

INTRODUCTION

Women's menstrual problems acquire significance, as reproduction depends on the normal functioning of menstrual cycle. Menstruation is an essential physiological phenomenon in women during reproductive age which involves, shedding of endometrium which was prepared to provide a bed for ferti-

lized gamete, when fails results into menstruation¹. In *ayurveda* it is explained as *masanumasika raja pravrutti* or *artava pravrutti*². During this age she has to face many problems like *kastartava*, *artavakshaya*, *atyartava*, *nashtartava*, *raktapradara* etc.

The amount of menstrual discharge varies from person to person. The normal menstruation is that which has interval between two menstrual cycles of one month, duration of menstrual bleeding of five days, not associated with pain or burning sensation. *Artava* should not be very scanty or excessive in amount³.

Artavakshaya is explained by *Acharya Sushruta* and is characterized by *yathochita kala adarshanam, alpartava* and *yonivedana*⁴. It can be compared with oligomenorrhea and hypomenorrhoea based on their signs and symptoms. Menstrual bleeding occurring more than 35 days apart and which remains constant at that frequency is called oligomenorrhoea. And when the menstrual bleeding is unduly scanty and lasts for less than 2 days it is called hypomenorrhoea⁵.

As *Artavakshaya* is precursor of *nastartava* explained by *Sushrutacharya* and he explained that it is caused due to the involvement of *vata* and *kapha*, which leads to *margavarodha* of *artavavaha srotasa* which are also explained as the causes of *vandhyatwa*⁶ and in present era there is high prevalence of this condition in society. Statistics says that out of 80.7% women suffering from irregular menstrual cycle, 19.3% are suffering from oligomenorrhoea⁷ so this topic was undertaken for present study.

For the treatment of *artavakshaya*, *Sushrutacharya* has explained that *shodhana* and *agneya chikitsa* should be done⁸. In our classics various *yogas* have been explained. Among all the *yogas*, *Hingwadi Taila* explained in *Bhaishjya Ratnawali yonivyapad rogadhikara* was selected for clinical study.

Aim:

The aim of the study is to establish an ayurvedic medication as a remedy for *artavakshaya*.

Objectives of study:

- To study *artavakshaya* in detail along with its possible modern correlations
- To evaluate the efficacy of *hingwadi taila* in the management of *artavakshaya*.

MATERIALS AND METHODS:

Selection of patients:

20 patients of age group of 16-35 years, fulfilling diagnostic criteria, who attended the OPD of Prasooti Tantra and Stree Roga Department, Alva's Ayurveda Medical College Hospital, Moodbidri.

Selection of drug

Hingwadi taila explained in *Bhaishjya Ratnawali* consist of *hingu, kasisa, saindhava, shunthi, patraka, chitraka, sahasara, samudrafena, ksharattray, haridra, daruharidra* as *kalka dravya* and *sarshapa taila* as *sneha dravya*. *Taila paka* was done in Rasa Shastra Laboratory of Alva's Ayurveda Medical College, Moodbidri

Method of data collection:

20 Patients suffering from *Artavakshaya* were selected based on diagnostic and inclusion criteria and administered with *Hingwadi taila* (Orally) 5ml BD before food with *godugdha* as *anupana* starting from the 5th day of menstrual cycle for three consecutive menstrual cycles

Assessment: was done on 5th day of each cycle.

Follow-up: for 1 cycle after intervention period.

Statistical test - Paired 't' test.

Diagnostic criteria:

Diagnosis was based upon the presence of any one or more of the following criteria.

- A. *Yathochitakala Adarshanam* of *Artava*- Menstrual cycle > 35 days
- B. *Alpartavam* –
 - a) Duration of bleeding < 2 days
 - b) Decrease in quantity of bleeding
- C. *Yoni Vedana* - Pain during menstruation

Inclusion criteria

- a) Patients fulfilling cardinal symptoms of *Artavakshaya*.
- b) Patients between the age group of 16-35 years

Exclusion criteria

- Pregnant & lactating women.
- Women on OCPs, IUCD.
- Congenital anomalies of uterus or ovaries.
- Women having systemic diseases which interfere with the present study.
- Women with any pelvic pathology or malignancy.

Investigations

Hemoglobin g% was done on the first day of clinical trial and at the end of the treatment.

Assessment criteria:

Two parameters- subjective and objective were used in initial and consecutive follow up time for assessment of progress. The subjective parameters were Duration of menstrual phase, Amount of bleeding (no. of pads/day), Duration of Inter menstrual period and *Yoni vedana* (lower abdominal pain). Objective parameter was Haemoglobin percentage

Table 1: Grading of assessment criteria

Sr. no.	Assessment criteria	Grade 0	Grade 1	Grade 2	Grade 3
1.	Interval between two menstrual cycle	26 -35 days	36 - 45 days	46 – 55 days	>55 days
2.	Duration of bleeding	4 to 7 days	3 days	2 days	1 day
3.	Amount of blood loss	>2 pads per day	2 pads per day	1 pad per day	Only spotting
4.	Pain	No pain	Mild	Moderate	Severe

RESULT AND OBSERVATION-

It was observed that out of 20 patients maximum number of patients (50%) were from the age group

of 16 to 25 years, unmarried 85%, middle economical class were more affected from *artavakshaya*.

Table 1: Result

Symptoms	MEAN SCORE			%	SD	SE	t	P
	BT	AT	BT-AT					
Interval Between Menstrual Cycles	1.75	0.2	1.55	88.57%	0.410	0.0918	10.100	<0.001
Duration of menstruation	1.75	0.55	1.2	68.57%	0.510	0.114	10.26	<0.001
Amount Of Bleeding	1.7	0.2	1.5	88.23%	0.410	0.0918	11.05	<0.001
Pain	1.1	0.05	1.05	95.45%	0.224	0.0500	6.84	<0.001

Statistically and clinically significant effect of the treatment was observed.

Table 2: Overall effect of therapy:-

Sr. No.	Effect of therapy	No. of subjects	Percentage
1.	Marked improvement	11	55%
2.	Moderate improvement	7	35%
3.	Mild Improvement	2	10%
4.	No improvement	0	0%

Out of total 20 patients, 11 patients had marked improvement, 7 patients had moderate improvement and 2 patients had mild improvement.

DISCUSSION

Artavakshaya is one of the menstrual disorders which indicate scanty menstrual flow associated with pain in variable duration where vitiation of *vata*

and *kapha* are predominant. As we all know that *artava* is formed from *rasa dhatu* within a month after proper metabolization of *rasa dhatu* by its *dhatwagni* and *bhutagni*. The *kshaya* of *rasa dhatu*

cause *artavakshaya* and *rakta kshaya* will develop simultaneously. As stated above *artava* and *rakta* are interlinked due to same *utpatti srota* i.e. *rasa dhatu* and same nature i.e. *agneya*. Therefore *artavakshaya* may also develop due to *rakta kshaya* also. *Maharshi Sushruta* has mentioned that *artava* is *agneya* and in *artavakshaya*, there is reduction of *agneya guna* of body i.e. *pitta kshaya* will take place and *vriddhi* of *vata* and *kapha* will be there.

As in our classics *artavakshaya* has not explained as a separate disease, but it has been explained as a symptom for many of the *yoni vyapad* and *artavadushti*.

Acharya Sushruta explained *artavakshaya* in *dosha dhatu mala kshaya vriddhi vigyanam* in *sutrasthana*.

➤ **Samprapti-**

- Due to *dosha dustikara ahara* and *vihara*, vitiation of *dosha* takes place along with *Agni mandya*. Due to which proper digestion of *ahara* not take place leads to production of *dushita ahara rasa* and *ama*. It will further produce *dushita rasa dhatu*. Subsequently there is vitiation of *samana vayu*, *pachaka pitta* and *kledaka kapha* due to *jatharagni mandya*.
- *Vikruta kapha* obstruct the *marga* of *apana vayu* and hence *karmahani* of *vata* take place resulting in reduced flow of *artava*. In this condition, the *vrudha kapha (avaraka)* symptoms become predominant and there is decreased activity of *vata (avruta)* which are expressed. Hence there is *kapha* aggravation and diminution *pitta dosha* in quality, which further leads to *jatharagni mandya* and finally *kshaya* of *rasa* and *rakta dhatu* take place leading to *artavakshaya*.
- *Artava vaha srotasa* are obstructed by the *vikruta apana vayu* and *kapha* leads to *artavakshaya*.

➤ **Chikitsa sidhanta-**

- The line of management should be to correct the pathology i.e. *samprapti vighatanameva chikitsa* should be adopted. The correction should be in such a way as to remove the *margavarodha* from the *artava vaha srotasa* by breaking the *avarana*

and *agnideepana* which in turn resulting into proper function of *rasa* and *rakta dhatu*, and leads to *artava vriddhi*.

- In classics both *shodhana* and *shaman chikitsa* has been mentioned for *artavakshaya*. *Acharya Dalhana* has explained that for *shodhana karma*, *vamana* should be done as it will remove only *saumya dhatu* and increase the *pitta* which will lead to *artava vriddhi*. For *shamana chikitsa*, *agneya dravyas* should be used which will improve the *agni* as well as *pitta* and in turn increase the *artava* and helps in *vatanulomana*.
- Thus *vata*, *pitta* and *kapha dosha* should be brought to normalcy to perform their respective function during *rituchakra* thereby establish the normal *artavapravrutti*. Hence in this context *agneya dravyas* are very relevant.
- Use of *agneya dravyas* not only relieves the *kapha* which does *avarana* to *apana vayu* but also increase the quantity of *artava*. As *agneya dravya* have *ushna virya*, it maintains the normal *ruksha* and *sheeta guna* of *vayu*, *snigdha* and *picchila guna* of *kapha*.
- There are many *agneya* drugs mentioned in *ayurveda* which are having *artavajanana* property *Hingwadi Taila* is one among them which was the trial drug in this study.

DISCUSSION ON THE DRUG REVIEW- Hingwadi Taila:

The trial drug *Hingwadi Taila* contains *hingu*, *kasisa*, *saindhava*, *shunthi*, *patraka*, *chitraka*, *kumara sara*, *samudraphena*, *tankana*, *yavakshara*, *sarjikshara*, *haridra* and *daruharidra* as *kalka dravya* and *sarshapa taila* as *sneha dravya* if given to the patients suffering from *artavakshaya* is said to give ultimate effect on *artava vaha srotasa*. Most of the contents of the drug are said to be *agneya dravyas* and have *artava janaka* and *garbhashaya sankochaka* properties. Hence it will directly act on *artavakshaya*.

Artavajanaka dravya are the substances which enhance the amount of menstrual blood and also regularise the menstrual cycle. *Artava* is said to be

agneya, hence the drugs need to be attributed with *tikshna, ushna, vidahi gunas* to be called as *artavajanaka dravyas*.

Use of *agneya dravyas* relieves the *kapha* which has done the *avarana* of the *apana vayu* by blocking the *artava vaha srotasa* and thereby removes the *margavarodha* and also increase the quantity of *artava*. These *dravyas* increases the amount of menstrual flow by improving the vascular supply or by increasing the thickness of endometrium.

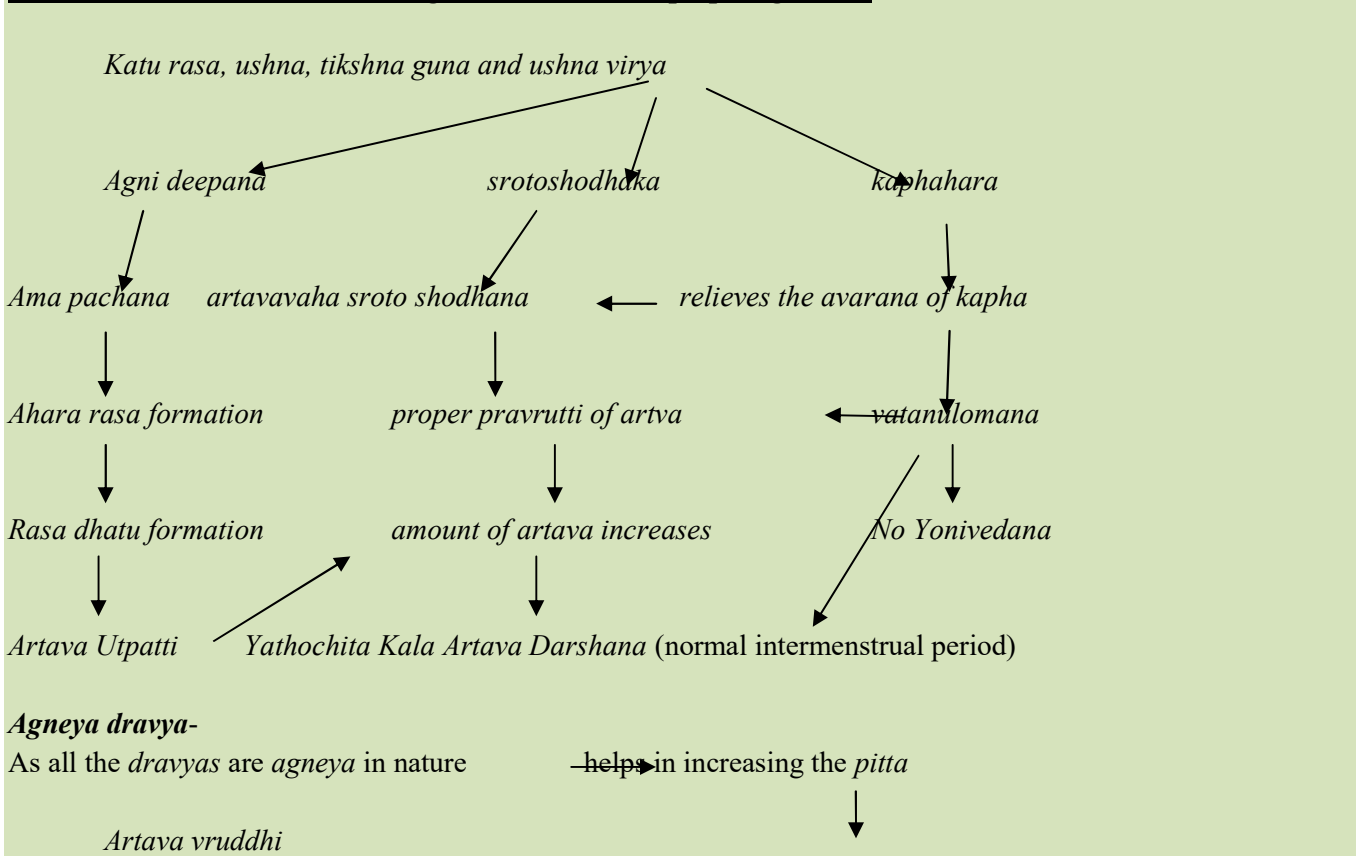
Probable mode of action of drug:

Most of the ingredients in *Hingwadi Taila* are having *katu rasa, ushna, tikshna guna* and *ushna virya* and *katu vipaka, kaphavata shamana* property and

artavajanana, shulaprashamana, deepana and *pachana* properties.

It is *kapha vata shamaka* and *pittavardhaka* hence helps in relieving the *avarana* of *apana vayu* and because of *agneya guna* it will increase the *artava*. These *guna* will help in *agnideepana, aamapachana* which will improve the *agni* and *amapachana* take place resulting into formation of healthy *ahara rasa* and *rasa dhatu* which in turn improve the quality and quantity of *artava*. Due to its *vatanulomana* property it will help in *anulomana* of *apana vayu* and proper expulsion of *artava* without any pain as *hingu* is also *shulaprashamana dravya*. It act directly on the uterus and considered as *garbhashaya shodhaka* and also *artavajanana*.

FIGURE 1- Mode of action of hingwadi taila and samprapti vighatana



- As almost all the *dravyas* of *hingwadi taila* are *agneya* in nature and have *agnideepana* property, proper *pachana* of *ahara* take place leads to

formation of proper *ahara rasa* and then *suddha rasa dhatu* therefore normal *utpatti* and *pravritti* of *artava* occurred due to the use of this *yoga*.

Most of the drugs had *kapha vata hara* and *pitta vardhaka* properties helped in relieving the *kapha avarana* of *apana vayu* and further *prakruta gati* of *apana vayu* which helped in normal *pravrutti* of *artava* without any pain.

Mode of action According to modern

- Most of the drugs have Antispasmodic property helps in relieving the pain
- Drugs are having Anti inflammatory action helps in reducing the pain.
- Drugs are having carminative action helps in relieving the pain.
- Drugs are having antibacterial, antiviral and antifungal properties which reduces the infection and help in proper cyclic phenomenon in menstrual cycle.
- Drugs are having immune-modulator and anti-carcinogenic properties.
- Antioxidant property of the drugs helped in maintaining the proper estrogen production, ovulation and help in maintaining the luteal phase resulting in normal level of progesterone hence helps in regularizing the HPO axis.
- Antioxidants also increase the anabolic activity in body hence increase the thickness of endometrium results in increasing the amount of blood loss.
- Drugs like *kasisa* have haematogenic property helped in improvement of haemoglobin. And studies have shown that along with improvement in haemoglobin *kasisa* helped in increasing the amount of bleeding in women.
- Drugs are having anticoagulant property and studies showed that after taking oral anticoagulants the women were having longer duration of flow and amount of bleeding also increased.
- Drugs like *patraka*, *hingu* etc. have anti hyperglycemic properties and study showed that uses of anti diabetic drugs helps in ovulation which results in corpus luteum formation and maintains the normal HPO balance and hence help in regularising the menstrual cycle.

- Most of the drugs have minerals, vitamins, carbohydrates, proteins which helped in improving the general health of the patients along with the improvement in haemoglobin and therefore maintain the normal hormonal balance in the body which are responsible for normal menstruation.

CONCLUSION

- a) The main principle of management of *artavakshaya* is *agnivardhaka*, *vatakaphashamaka* and *vatanulomaka chikitsa*. In classics, both *shodhana* and *shaman chikitsa* are described. *Shamana chikitsa* is done by using the *agneya dravya* which improve the *artavautpatti* by “*samanena samanasya vruddhi*”.
- b) After intervention it was observed that *hingwadi taila* is effective in the management of *artavakshaya*.
- c) The effect of *Hingwadi Taila* on the interval between two menstrual cycles was 88%, duration of menstruation was 68%, amount of blood flow was 88% and pain during menstruation was 95%.
- d) Hence effect of the drug was statistically significant in *artavakshaya*

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