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A Comparative Clinical Study of JY-P Ghan Vati with Krishna Til Kwath and Shatpushpa Churna in the Management of Artavakshaya w.s.r to Oligomenorrhoea and Hypomenorrhoea

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ABSTRACT

Artavakshaya is described in Sushruta Sutra Sthana during description of "Dosha Dhatu Mala Kshaya Vriddhi" and it is defined as Alpartava both in amount and duration with associated symptom of 'Yathochitakala Adarshnam' and 'Yonivedana'. Aartavakshaya symptoms resemble with Hypomenorrhoea and Oligomenorrhoea based on their signs and symptoms described in the modern medical science. But in Artavakshaya, Acharya Sushruta mentioned Yoni Vedana which may resembles to dysmenorrhoea in modern text. Artavakahaya is the most prevalent associated clinical condition met in day to day gynecological practice especially in adolescent and young age group women. Present study was designed to establish an Ayurvedic management of Oligomenorrhoea & Hypomenorrhoea. The treatment given was JY-P Ghan Vati (Anubhoot Yoga) with Krishna Til Kwath and Shatpushpa (Anethum sowa)Churna after Koshtha-Shuddhi.

Aims & Objectives: -To study the efficacy of JY-P Ghan Vati with Krishna Til Kwath the management of Artavakshaya. To study the efficacy of Shatpushpa (Anethum sowa)Churna in the management of Artavakshaya & to compare effect of both drugs in the management of Artavakshaya. To observe adverse effects of drugs according to complains of patients if any. Material & Methods:-60 clinically diagnosed patients of Artavakshaya (Oligomenorrhoea and Hypomenorrhoea) were randomly selected from OPD/IPD Dept. of Prasuti Tantra & Stree Roga, Rishikul Campus Haridwar and were divided into three groups of 20 patients each. In Group-A JY-P Ghan Vati with Krishna Til Kwath, In Group-B Shatpushpa Churna and in Group-C JY-P Ghan Vati with Krishna Til Kwath and Shatpushpa Churna were given for three consecutive menstrual cycles.

Results: - All the three groups shown statistically significant results in treatment of Artavakshaya but on inter comparison of groups, Group-C (JY-P Ghan Vati with Krishna Til



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Kwath+ Shatapushpa Churna) showed better results than Group-B and Group-A in all subjective parameters, on the basis of percentage relief.

KEYWORDS

Artavakshaya, Oligomenorrhoea, Hypomenorrhoea, Koshtha-Shuddhi, JY-P Ghan Vati, Krishna Til Kwath, Shatapushpa Churna



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INTRODUCTION

Women play an important role in society as a mother, sister and daughter. Without women there is no possibility of conception. To get safe and healthy progeny healthy female genital organs is mandatory.

"एवं योनिषु शुद्धासु गर्भ विन्दन्ति योषितः |

अदुष्टे प्राकृते बीजे जीवोपक्रमणे सित " \parallel (च.चि.३०/१२५) 1

Vagina, uterus, fallopian tube and ovary are included in female internal genital organs. Ovary plays a very important role in female its whole reproductive during Rituchakra (Menstruation) is an important physiological function of women during their reproductive age (15-40yr). Normal menstrual cycle is an indication for healthy women who have healthy reproductive organs. According to Ayurveda, normal Rituchakra (menstruation) is 1 month (Chandramasa-28days)in which Rajahshrava Kala duration 3 to 5 days (differ according to different opinion of Acharya), is not associated with pain or burning sensation, excreted blood is not unctuous, not very scanty or excessive in amount, Ritukala is 12-16 days. The colour resembles (Acharya Charaka) the fruit of jequirity or red lotus flower or Indragopa. (Acharya Sushruta, Bhavmishra and other Acharya) the red juice of lac or rabbits blood.2

In normal *Rituchakra*, *RITUKALA* is mainly influenced by Kapha *Dosha* but ends with *Pitta Dosha* dominent.

"आर्तव शोणित त्वाग्नेयमग्नीषोमीयत्वाद गर्भस्य " $\|(\mathbf{H}.\mathbf{H}.\mathbf{Y})^3\|$

- At the **end of** *Rajahkala* level of *Kapha Dosha* starts increasing known as *Kaphachaya*.
- During *Ritukala*, *Kapha Dosha* level reaches at its peak known as *Kapha Prakopa*.
- Pitta Dosha level starts increasing in later half of Ritukala known as Pittachaya.
- *Vata Dosha* is at its normal level during the **whole phase** known as *Vatashama*.

According to ancient Acharya's Kapha Dosha is essential for regeneration and growth and Vata Dosha causes retardation of growth. *Ritukala* is a period resembling proliferative phase. Thus the physiology of Kapha Prakopa and Vatashama during *Ritukala* is self explanatory for the various changes taking place during this phase. Kapha Dosha always acts through Rasa. Rasa is described as plasma, including the interstitial fluid and lymph. The role of plasma in proliferation of endometrium is self-evident. So role of Kapha through Rasa can easily be understood. It is the mechanism of the whole body which tries to remain in a normal state. Hence, when Kapha Dosha level increases to a certain



extent, automatically *Pitta* comes into play so that *Kapha Dosha* level should not rise to that extent which will cause some sort of disorder, in the menstrual cycle. Following references in support of the above explanation:-

" घृतक्षीरादिनित्यासु मुदितासु कफात्मासु | आर्तवं तिष्ठति चिरं विपरीतास्वतोऽन्यथा "|| (अ.सं.शा.१/६९)

RITUVYATEETKALA is mainly influenced by Pitta Dosha. The level of Pitta Dosha which starts increasing at the end of Ritukala reaches the peak level called as *Pitta Dosha Prakopa*. As the level of Pitta Dosha increases, level of Kapha Dosha goes on decreasing till it comes to the level of *Kaphashama*. During the later **period** of this stage *Vata Dosha* comes into action known as Vatachaya. Pitta Dosha always acts through medium of Rakta. Thus this phase which resembles the secretory phase is influenced by Pitta and Rakta. According to ancient Acharya, Pitta is essential for various types of secretions of body. Hence influence of Pitta & Rakta on Rituvyateetkala itself explainer regarding the glandular and vascular changes in the endometrium.

RAJAHKALA is mainly influenced by *Vata Dosha*. As soon as **menstruation starts**, *Pittaprakopa* starts coming to a stage of *Pittashama*. *Vata Dosha* plays its role throughout the phase. But as *Pitta*

Dosha decreases Kapha Dosha comes into play and a stage of Kaphachaya comes which is responsible start of regeneration of endometrium. Vata Dosha always acts through Dhamanee (arteries). The spasm in the straight stem of arteriole as a causative phenomenon of bleeding is similar to the action of Vata Dosha through Dhamanee.⁴

"मासेनोपचितं रक्तं धमनीभ्यामृतौ पुनः |

ईषतकृष्णं विगन्धं च वायुर्योनिमुखान्तुदेत्'' || (अ.ह्र.शा.१/२२)

Above description shows normal Rituchakra (menstruation) are controlled by Tridosha (V+P+K) Samyavastha. If any one or more *Dosha* vitiated, *Rituchakra* will also get disturbed. Now a day's it is very common in every woman due to today's stressful life style and habitual to regular intake of junk food due to sedentary lifestyle. According Ayurveda to Artavakshaya is one of them is described in Sushruta Sutra Sthana during description of Dosha Dhatu Mala Kshaya Vriddhi and it is defined as *Alpartava* both in amount and duration with associated symptom of 'Yathochitakala Adarshnam' and 'Yonivedana'.5

"आर्तवक्षये यथोचितकालादर्शनअल्पता वा योनिवेदना च| तत्र संशोधनमाग्नेयानां च द्रव्याणां विधिवदुपयोगः"|| (सु.सं.सू.१५/१६)

In our Ayurveda classics like Charaka Samhita, Ashtanga Sangraha, Ashtanga Hridya Aartavakshaya not explained as a



separate disease. But it has been explained as a symptom for many of the Yoni Vyapada (Vatala & Shushka, Arajaska, Lohitakshaya, Sandi, *Bandhya*) and Artavadushti & (Vataja Kshina). ⁶Aartavakshaya symptoms resembles with Oligomenorrhoea (interval >35days with normal menstrual bleeding) and Hypomenorrhoea (< 2days menstrual bleeding with regular interval) based on their signs and symptoms described in the science.⁷ medical But modern Artavakshaya, Acharya Sushruta mentioned Yoni Vedana may resembles to dysmenorrhoea in modern Oligomenorrhoea can only be defined arbitrarily as one in which the cycle lasts longer than 35days. Menstruation may be both infrequent and irregular or may be regularly infrequent.

CAUSES

1-Constitutional: - It can be familial. 2-Physiological:-In majority of cases infrequent menstruation represents peculiarity of the individual and not out of keeping with health and good fertility. The bleeding can be ovular in type, which means that the ovarian cycle is drawn out or temporarily arrested at some phase. As a rule the luteal phase tends to be fairly constant at 14 days; it is the follicular phase which is either lengthened or slow to Infrequent commence. menstruation

sometimes follows the menarche and precedes the menopause.⁸

- Stress and exercise related.
- Age related: during adolescence and preceding menopause.
- Weight-related: obesity.
- Drugs:-Phenothiazines, Cimetidine,
 Methyldopa⁹
- **3-Hormonal:-**if there is any abnormality, it is essentially one in which the ovary is underactive, and this is reflected in the secondary sex organs. Hypoplasia of the uterus and vagina, and a history of late menarche, is therefore to be expected. The ovarian disturbance is often secondary to hypothalamic, pituitary, thyroid or adrenal dysfunction, so the patient may have other stigmas of endocrine upset such as obesity, squat figure, hirsutism and low fertility.
- **4-Chromosomal:-**An underlying sex chromosome abnormality, such as an xxx arrangement, is occasionally found.

Hypomenorrhoea defined by a uterine bleeding may be slight in amount, short in duration, or both, but the menstrual function varies so widely within normal limits that the definition of abnormally scanty loss is a matter of opinion. Bleeding which lasts 2 days or less is unusual, if not pathological, and is termed hypomenorrhoea. ¹⁰

CAUSES:-1-Constitutional:-in most cases scanty menstruation characterizes the



whole menstrual life of women and is to be regarded as a constitutional trait of no significance. Even when it precedes or follows a phase of full menstrual loss, it rarely has a pathological basis. Bleeding which lasts only a few hours is not incompatible with full fertility, the ovarian and endometrial cycles usually being normal. **2-Uterine:-**scanty loss sometimes means that the bleeding surface is smaller than normal, and is occasionally seen when the endometrial cavity has been reduced too much during myomectomy or other plastic operation on the uterus, by intrauterine adhesions or by chronic endometritis, e.g. tubercular. **3-Hormonal:-**Any imbalance in the production of oestrogen and progesterone hormones gives rise to disturbances. menstrual Estrogen responsible for creating the inner lining of the uterus, low level of these hormones responsible for very thin lining uterus leading to hypomenorrhoea. Hormonal imbalance can also occur with long term use of low -dose oral contraceptives, as a result of progressive endometrial atrophy. 4-Nervous and emotional:-psychological factors may fail to suppress a stable ovarian and uterine cycle completely and sometimes succeed only in reducing the amount of flow. For example, pseudocyesis which is frequently characterized by scanty periods rather than amenorrhorea.¹¹

MATERIALS & METHODS

Sixty patients diagnosed with Artavakashaya (Oligomenorrhoea and Hypomenorrhoea) after detailed clinical history and physical examination, were selected from the O.P.D and I.P.D department of Prasuti Tantra and Stree Roga, Rishikul Campus, Haridwar. The study was conducted randomely divided 3 groups i.e., 20 patients in each group. In every group Deepana Pachana with Trikatu Churna 3-5gm twice a day (according to patients Agni Bala) was done for better metabolism of the patients for 3 days then Koshtha-Shuddhi done by using Trivrita Avaleha 10-15gm with Ushnodaka Anupana once in morning hour for next 3 days before using drug. In Group-A JY-P (Jyotishmati+Yawani+Praval Pishti) Ghan Vati 2 tablet BD (weighing 500mg each) with 40ml Krishna Til Kwath, In Group-B Shatpushpa Churna (6gm BD) and in Group-C JY-P Ghan Vati with Krishna Til Kwath and Shatpushpa Churna were given for three consecutive menstrual cycles. It was a randomized open clinical **trial**. Duration of study was 90 days after (For consecutive registration. three menstrual cycles), 4 follow ups were done, at every one month interval for three cycles with medicine and last follow up of one month without medicine after completion



of trial. Total study period was 120 days. The study was done in accordance with good practice guidelines of WHO. Ethical clearance from the Institutional Ethical Committee was obtained and trail was also registered under Clinical Trial Registry of India-(CTRI/2019/03/017920).

> PREPARATION OF THE DRUG

Required raw drugs (*Jyotishmati Patra*, *Yawani Bija*, *Prawal Pishti & Shatpushpa Bija*) were collected Rishikul *Watika_&* Rajrajeshwari nursery Roorkee road & identified by *Dravyaguna* Department of Rishikul Campus, Haridwar. The JY-P *Ghan Vati* and *Shatpushpa Churna* were prepared in the Hans Pharmacy Sidcul, Haridwar.

INVESTIGATIONS:-1-Routine

investigations:-Haematological study: Hb%, TLC, DLC, ESR, RBS, Urine test
(Routine and microscopic), Serological: VDRL, HIV 1&2, HbsAg, Anti HCV 2Hormonal profile: - (If necessary)
Thyroid profile (T3, T4, TSH), Sr.
Prolactin, on 2nd/3rd day of menses:-Serum
LH, Serum FSH, Serum Testosterone,
Serum Estradiol, Serum progesterone
(after 14th day of menses)

3-UPT (for married patient).

4-Sonography: -USG (lower abdomen) for endometrial thickness and any organ of pelvic pathology, Transvaginal Sonography

(TVS) for endometrial hyperplasia (in married women)

SUBJECTIVE PARAMETERS (Table

1-5) (**Special Note:-**Grade-0 to 3 shows normal to severe condition of parameters)

Table 1 Interval of menstruation

Inter menstrual period days	Grade	Score
21-35 days	Nil	0
36-45 days	Mild	1
46-55 days	Moderate	2
>55days	Severe	3

Table 2 Duration of bleeding

Duration	Grade	Score
4-5 days	Nil	0
3 days	Mild	1
1-2day	Moderate	2
1day Spotting	Severe	3

Special note:-according to menstrual pictogram one regular sanitary pad (size i.e. 220x 75x20mm-According to Consumer Voice June 2013) fully soaked denote 5ml of menstrual blood.

Table 3 Quantity of menstrual blood

Number	of	of Grade	
pad/day			
3-4pad/day		Nil	0
2pad/day		Mild	1
1pad/day		Moderate	2
No	pad	Severe	3
(Spotting)	_		

Table 4 Pain associated with menstruation

Pain	Grade	Score
No pain	Nil	0
Bearable pain (pain not affected daily activities)	Mild	1
Requirement of oral analgesics (pain affected daily activities)	Moderate	2
No relief after analgesics (pain inhibited daily activities)	Severe	3



Table 5 Endometrial thickness

Endometrial	Grade	Score		
thickness				
8-9mm	Nil	0		
6-7mm	Mild	1		
5mm	Moderate	2		
≤4mm	Severe	3		

It was observed that 60 patients included in the study the maximum incidence (66.6%) was found in the age group of 21-30 years while least incidence was seen in the age group of 36-45 years (Table 6)

OBSERVATION AND RESULTS

Table 6 Age wise Distribution of 60 Patients of Artavakshaya

Age in	GROUP-A		GROUP-B		GROUP-C	!	Total no. of	%
years	No. of Patients	%	No. of Patients	%	No. of Patients	%	Patients (N=60)	
15-20	3	15	2	10	5	25	10	16.6
21-25	10	50	5	25	7	35	22	36.6
26-30	3	15	8	40	7	35	18	30
31-35	3	15	4	20	1	5	8	13.3
36-45	1	5	1	5	0	0	2	3.3

Maximum patients were unmarried (63.3%)-(Table: 7).Besides age & marital status highest incidence were found in students (46.6%), household work women (35%) who were graduate (30%) and postgraduate (35%) educational status (Table: 8 and Table: 9)

Table7 Distribution of 60 Patients According to Marital Status

Marital	GROUP-A No. of % Patients		GROUP-H	GROUP-B		C	Total no. of	%
Status			No. of % Patients		No. of % Patients		Patients(N=60))
Unmarried	16	80	7	35	13	65	38	63.3
Married	4	20	13	65	7	35	24	40

Table 8 Distribution of 60 Patients According to Occupation

Occupation	GROUP-A		GROUP-E	3	GROUP-C		Total no. of	%
	No. of Patients	%	No. of Patients	%	No. of Patients	%	Patients (N=60)	
Household work	9	45	6	30	6	30	21	35
	0	45	7	35	12	60	28	46.6
Student	9	43	/	33	12	00	20	40.0

Table9 Distribution of 60 Patients based on Educational Status

Education	GROUP-A		GROUP-H	3	GROUP-0		Total	%
	No. of Patients	%	No. of Patients	%	No. of Patients	%	— no. of Patients (N=60)	
Uneducated	2	10	1	5	0	0	3	5
Primary school	0	0	4	20	4	20	8	13.3
High school	1	5	1	5	1	5	3	5



Intermediate	3	15	2	10	2	10	7	11.6
Graduate	6	30	5	25	7	35	18	30
Postgraduate	8	40	7	35	6	30	21	35

Statistical analysis:-The information collected on the basis of observations was analyzed using appropriate statistical test to evaluate the significances at different levels i.e. at 0.05, 0.01 and 0.001 levels. The obtained results were interpreted as:-p-value >0.05:-Not significant, p-

value<0.05:-Significant, p-value<0.01:-Very significant, p-value<0.001:-Highly significant

Intra group test: - by Wilcoxon Signed Rank Test.

Inter-group comparison test: - by Krushal Wallis Test (Non parametric ANOVA)

Table10 Intra-Group (A, B &C) Results based on Subjective Criteria:-

	SUBJECTIVE	N	Group-A	1	Group-B		Group-0	
S.N.	PARAMETERS		P-	Result	P-Value	Result	P-	Result
			Value				Value	
1.	Yathochitakala Adarshanama	14	< 0.001	HS	< 0.001	HS	< 0.001	HS
	(Interval of menstruation)							

2.	Yathochitakala Adarshanama (Duration of menstruation)	12	<0.01	VS	< 0.001	HS	< 0.001	HS
3.	Alpata (Quantity of menstrual blood)	14	< 0.01	VS	< 0.001	HS	< 0.001	HS
4.	Yoni Vedana (Pain associated with menstruation)	14	< 0.01	VS	< 0.001	HS	< 0.01	VS
5.	ET(Endometrial thickness)	8	>0.05	NS	>0.05	NS	>0.05	NS

Table11 Inter- Group Comparison Results based on Subjective Criteria:-

	SUBJECTIVE PARAMETER	Group	No.	Kruskal	P-Value	
S.N.		_	of Pt.	Wallis H		Result
1.	Yathochitakala Adarshanama (Interval	Group-A	14	1.654	>0.05	
	of menstruation)	Group-B	12	_		Not significant
		Group-C	14	_		
		Total	40	_		
2.	Yathochitakala Adarshanam (Duration	Group-A	12	0.6951	>0.05	
	of menstruation)	Group-B	15	-		Not
		Group-C	16	_		significant
		Total	43	_		
3.	Alpata (Quantity of menstrual blood)	Group-A	14	2.984	>0.05	
		Group-B	14	_		Not
		Group-C	18	_		significant
		Total	46	-		
4.	Yoni Vedana (Pain associated with	Group-A	14	2.669	>0.05	
	menstruation)	Group-B	14	-"		Not
		Group-C	13	_		Significant
		Total	41	-		
5.	ET (Endometrial thickness)	Group A	8	4.5052	>0.05	



Group B	6	Not
Group C	3	Significant
Total	17	-

Table12 Group wise collective relief in subjective parameters:	Tab	le12	Group	wise	collective	relief in	subjective	parameters:-
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RELIEF %			
GROUP-A	GROUP-B	GROUP-C	
48.38%	<u>59.25%</u>	50%	
<u>62.96%</u>	59.37%	51.42%	
38.70%	<u>60%</u>	47.36%	
38.09%	44%	54.54%	
69.23%	50%	83.33%	
	GROUP-A 48.38% 62.96% 38.70% 38.09%	GROUP-A GROUP-B 48.38% 59.25% 62.96% 59.37% 38.70% 60% 38.09% 44%	

Table13: Total effect of medication:-

TOTAL EFECT	NUMBI		
	GROUP-A	GROUP-B	GROUP-C
Unchanged (0% relief in symptoms)	04 (20%)	05 (25%)	02 (10%)
Very mild improvement (0.1-25% relief in symptoms)	03 (15%)	01 (5%)	02 (10%)
Mild improvement (25.1% - 50% relief in symptoms)	03 (15%)	03 (15%)	05 (25%)
Moderate improvement (50.1% - 75% relief in symptoms)	07 (35%)	08 (40%)	05 (25%)
Marked improvement (75.1% - 100% relief in symptoms)	03 (15%)	03 (15%)	06 (30%)
TOTAL	20 (100%)	20 (100%)	20 (100%)

DISCUSSIONS

Age: - Present study reveals that maximum i.e. 66.6% of patient belongs to 21-30 years of age group. On correlating *Artavakshaya* with age, according to our classics in this age normal status of *Doshas* must be *Pittolavana-Kapha Madhyama-Vayu Heena*. But it was found that maximum patients in this study had *Kapholavana-Vata Madhyama-Piita Heena* status of *Doshas*, which may be due to this age groups women live with erratic life style, unhealthy dietetic habits, career related stress and strain, which is responsible for

vitiation in normal status of *Doshas* and it interferers in normal menstrual cycle to produce *Artavakshaya* symptoms.

Marital status:-The study showed that maximum registered patient's i.e, 63.3% were unmarried group, this may be due to their concern toward the future career and fertility issues after marriage. disturbance in the menstrual cycle may made have been them anxious. **Occupation:-** In the present study majority of patients (46.6%) were students this might be because literate people are more aware about their problem and hence approach



early to the hospital. Students live with mentally depression & stress; this also affects the normal physiology of H-P-O axis. Educational Status: - As per Table-9, majority of patient's i.e.35% post graduate & 35% was graduate. This might be a reflection of erratic life style, diet and leading to stress Artavakshaya. Socioeconomic status:-Maximum patients in this study i.e, 61.6% were lower middle class followed by 28.3% upper middle class, 10% were lower class and 0% was upper class. As India is a developing country, so the people of lower middle class and upper middle class have to live in a competitive era. This causes both physical and mental stress and gives rise to disease like Artavakshaya.

In all the three groups the effect of treatment was highly significant (pvalue<0.001) in maximum symptoms of Artavakshaya. On inter comparison of groups, Group-C (JY-P Ghan Vati with Krishna Til Kwath + Shatapushpa Churna) showed better results than Group-B and Group-A in all subjective parameters, on the basis of percentage relief. All medication works by their Rasa, Guna, Vipaka & Visheshkarma i.e, Virya, Artavajanana. They improves digestion (Jathragni), clears the channel (Srotoavarodha), create Tridosha (V+P+K)

equilibrium in normal *Rituchakra* (menstrual cycle) and gave relief in *Artavakshaya*.

CONCLUSIONS

In this conceptual study it could be concluded that the of main cause Artavakshaya is Tridosha vitiation. Main etiological factor clinically found in Oligomenorrhoea & Hypomenorrhoea in present study was today's life style & mental stress. JY-P Ghan Vati with Krishna Til Kwath and Shatapushpa **Churna** separately and with **combination of both** shows statistically significant result in almost all subjective parameters of the study. Although inter groups comparison of all the three groups shows not significant results means all the three groups have almost equal results,

But on the basis of percentage relief Group-C (**JY-P** *Ghan Vati* with *Krishna Til Kwath* +*Shatpushpa Churna*) was found to have better results in treating *Artavakshaya* than Group-B and Group-A.

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