

A STUDY OF EFFICACY OF GUDA VYOSHADI KWATH IN ARTAVKSHAYA

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ABSTRACT

Ayurveda is the science which deals with maintenance of health and cure of disease. It stands on the frame work of *Tridoshas*, *Sapta Dhatus* and *Trimalas*. Apart from the *sapta dhatus*, *upadhatus* also play an important role. In female, *Artava* the *upadhatu* of *rasa dhatu* is responsible for conception. Hence, the healthy status of *Artava* is of prime importance when it comes to reproductive health. Any abnormality in *Artava* and its functions has an impact on menstrual regulation as well as reproduction. So within the inherent constitutional frame work of *doshas* and timely administration of *Aushadha*, *Aahara* and *Vihara* will restore the *Dosha* in balance which in turn keeps *artava* in *samyavastha*. *Artavakshaya* is one of the important diseases pertaining to *artava*. It is characterised by delayed, scanty menstruation associated with lower abdominal pain during menstruation. In classics, based on the pathophysiology of *Lakshana* by considering *Dosha*, *Dushya*, *Agni*, *Srotas* etc. this condition can be considered as *Artava Kshaya*. It is *Agnimandhyajanya Vikara* having *Bahudoshavastha* with *Kapha Vata Dushti* where *Kapha* produces *Avarana* to *Vata Dosha* and obstructs *Artava Vaha Srotas*. So, using *agnay dravyas* *Deepana Pachana* followed with *Shamana Chikitsa* corrects the pathophysiology *Artava Kshaya*. By this the *agni* will be stimulated which helps in digestion of *ama*, formation of *ahara rasa*, which later on forms the *Rasa dhatu* from which the *Artava* is formed. Thus menstrual health can be maintained from the onset of menstruation till the menopause. The basic physiology of the menstrual cycle is a complex mechanism. This involves sequence of phases in coordination with the hypothalamus, anterior pituitary, ovary and endometrium. Normalcy and rhythmic menstruation are prime factors for normal reproduction. The menstrual cycle with all its complexities can be easily perturbed and lead to *Oligomenorrhoea* and *Hypomenorrhoea* the most common conditions seen in the present era.

KEYWORD:- *Ayurveda*, *Artavkshaya*, *Doshadhatu*, *Kaphavat*, *Agneydravyas*, *Shamanchikitsa*.

INTRODUCTION

Ayurveda gives due importance to *Shuddha Artava* and mention that *Artava Dushti* is one of the causative factors for *infertility*.^[1] In *Ayurveda* due importance is given to the health of the women because health of family, society and nation largely depends on the health of its women. *Acharya Manu* has mentioned that women are the origin of progeny.

In *Manusmriti*^[2] it is said that

"प्रजननार्थं स्त्रीयः सृष्ट्याः" (मनुस्मृति)

According to *Amarkosha*^[3] definition of *Stree* is

"स्त्यायते अस्याम् गर्भं इति स्त्रीः" (अमरकोष)

Menstruation, conception and motherhood are the creative aspects of procreation and defines woman. The preparation of motherhood starts with puberty. 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 fertilized gamete, when falls results into menstruation.^[4] In *Ayurveda* it is explained as *Masanumasika Raja Pravrutti* or *Artava Pravrutti*.^[5] During this age she has to face many problems like *Kashtartava*, *Artavakshaya*, *Atyartava*, *Nashtartava*, *Raktapradara* etc.

Artava or menstrual blood is expelled from the uterus through vagina in biological rhythm during a woman's reproductive period i.e. from menarche to menopause.^[6,7]

"ऋतौ भवतीयातव" (अ. सं. शा. १/९, इंदू टीका)^[8]

According to *Ayurveda* word *Artava* denotes two meanings *Antarpushpa* and *Bahirpushpa*, and both are interrelated. *Antarpushpa* can be considered as *Beeja* or ovum and *Bahirpushpa* is *Raja* i.e. menstrual blood which is outward manifestation of proper functions of

Antarpushpa, which is essential for conception. In this study we study the *Bahirpushpa* in detail.

In the female, reproductive system has a great importance and any disease in this system will seriously affect her health and it proves to be a great discomfort. The amount of menstrual discharge varies from person to person, *Acharya Charaka* has stated that

"नैवातिबहु नात्याल्पं आर्तव शुद्धं आदिशेत् !" (च. चि ३०/२२५)^[9]

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 amount.

In *Ayurveda* it has been clearly explained that scanty menstruation is not normal.

Artavakshaya has been explained by *Acharya Sushruta* in *Dosha Dhatu Mala Kshaya Vruddhi Vigyaniya Adhyaya*^[10] But *Acharyas* have explained it as *Kshinartava Dushti* or *Alpartava* which is one among the *Ashtartava Dushti* described in our *Samnitas*.^[11]

It is also explained as the symptom of various *Yonivyapadas*.

It can be compared with oligomenorrhea and hypomenorrhea based on their signs and symptoms. Menstrual bleeding occurring more than 35 days apart and which remains constant at that frequency is called oligomenorrhoea^[12] And when the menstrual bleeding is unduly scanty and lasts for less than 2 days it is called hypomenorrhoea.^[13]

"दोषोरावृतमार्गत्वादार्तवं नश्यति स्त्रियाः ।" (सु.स.शा. २/२१)^[14]

Acharya sushrut while explaining about *nashtaartav* says that the vitiation of *vata* & *kapha* doshas obstruct the passage or orifices of channels carrying *Artava* (*Artava vaha srotas*) thus *Artava* is destroyed. Thus, *Artava* is not finished complete lead to *Artava Kshaya*.

आर्तवक्षये यथोचितकालादर्शनमल्पता वा योनीवेदना च । (सु. सू. १५/१६)^[15]

The cardinal features of *Artavakshaya* are reduced quantity of menstrual bleed at appropriate period along with *yonivedana*.

In classics, based on the pathophysiology of *Lakshana* by considering *Dosha*, *Dushya*, *Agni*, *Srotas* etc. this condition can be considered as *Artava Kshaya*. It is *Agnimandhyajanya Vikara* having *Bahudoshavastha* with *Kapha Vata Dushti* where *Kapha* produces *Avarana* with *Vata Dosha* and obstructs *Artava Vaha Srotas*. So, using

agney dravyas Deepana Pachana followed with *Shamana Chikitsa* corrects the pathophysiology *Artava Kshaya*. By this the *agni* will be stimulated which helps in digestion of *ama*, formation of *ahara rasa*, which later on forms the *Rasa dhatu* from which the *Artava* is formed.

In classics there are many *Aushadha Yoga* mentioned for management of *Artavakshaya*. *Ayurveda* suggests both *Shodhana* and *Shamana* therapy by *Agnivardhaka* and *Vat Kapha Samak Dravya* as the line of treatment in *Artavakshaya*.^[16]

तिल क्वाथो गुड व्योषम तिलभार्गीयुतम् पिबेत्। क्वाथम् रक्तभवे गुल्मे नष्टपुष्पेऽय पाययेत् ॥ (र. र. स. २५/८७)^[17]

For this clinical study *Guda Vyoshadi Kwath* mentioned under *Kshudrarogadichikitsanirupanam adhaya* in *Ras Ratna Samucchaya* indicated for the treatment of *Raktagulm* and *Nashtapushpa* has been selected^[17] Stating that the intake of this medicine will induce *Rudhira Srava* (Menstrual bleeding). Considering above factors this study is planned to evaluate efficacy of Internal administration of *Guda Vyoshadi Kwath* in the management of *Artavkshaya*. The used drug is easily available and administration of drug is by oral route which is more convenient to patient, hence it is feasible, also type of study is not done previously. Study is safe. Topic reference is from *Ras Ratna Samucchaya*.

Aim

To study the efficacy of *Guda Vyoshadi Kwath* in *Artavkshaya*.

Method of selection of patient

- It is a study of 50 patients suffering from *Artava Kshaya*.
- In selected 50 patients *Guda Vyoshadi Kwath* is administered orally.
- The Parameters of signs and symptoms is scored on the basis of standard method of statistical analysis.

Diagnostic criteria

- If interval between two cycles exceed more than 35 days and amount is also less.
- If duration of menstrual flow is 2 days or less.
- The quantity of menses is less than 1 pad per day.
- Pain during menstruation

Inclusive criteria

- Patients fulfilling cardinal symptoms of *Artavakshaya*.
- *Yathochitakala Adarshanam of Artava* - Menstrual cycle > 35 days
- *Alpartavam* -Duration of bleeding < = 2 days
- *Yoni vedana* -Lower abdominal pain during menstruation
- Patient in between the age group 20 to 35 years.
- Patient is included irrespective of religion, socioeconomic status, marital status etc.

- Hypothyroidism and PCOS with scanty menses.

Exclusive criteria

- Patient having congenital Uterine Anomaly.
- Patients taking oral contraceptive pills and having IUCD's.
- Patients suffering uterian Malignancy, Endometriosis.
- Patient with Autoimmune disorders such as Cancer, AIDS.
- Patient with *Pitta Prakruti*.

Withdrawal criteria

- If any adverse effect of trial drug arises in patient.
- Not willing or if no more interested in participation.
- Any new disease diagnosed during the course of treatment.

Assessment criteria

- To assess the enhancement in symptoms by the given treatment, progression on the basis of symptoms seen have been stated here.
- According to the change in gradation of symptom the effect of given drug under clinical trial will be noted.
- The main criteria for clinical assessment are based on findings of changes in symptoms with their descent in gradation.

According to change in the manifestation will be graded as follows

Normal- Grade 0

Mild- Grade 1

Moderate - Grade 2

Severe - Grade 3

1. Duration of flow
2. Interval between 2 cycles
3. Amount of blood loss
4. Grade of pain (*yoniv edana*)

Scoring method

A) Duration of flow

Grade 0-4-7 days

Grade 1-3 days

Grade 2-2 days

Grade 3-1 day

B) Interval between two cycles

Grade 0-24 to 34 days

Grade 1-35 to 39 days

Grade 2-40 to 45 days

Grade 3- Above 45 days

C) Amount of blood loss- (Pads per day)

Grade 0-3 or more then 3 pads used

Grade 1-2 pads used

Grade 2-1 pads used

Grade 3-< 1 pad used

Grade 4- spotting (bleeding without pads)

D) Yoni Vedana (Pain during menstruation)

Grade 0-No pain

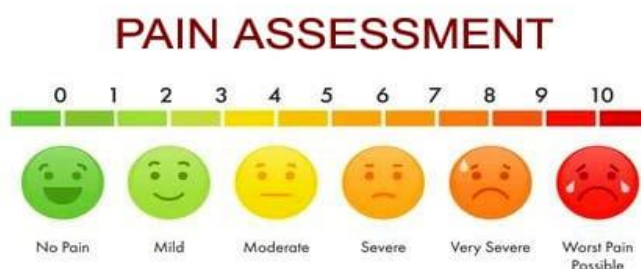
Grade 1- Mild pain

Grade 2- Moderate pain

Grade 3 - Severe pain

Pain / *Yonivedana* [Assessed by VAS (Visual Analogue Scale) and Verbal Descriptive Scale (VDS) during menstruation cycle]

Severity of pain	Grade
No pain -0	0
Mild pain (1-3)	1
Moderate pain (4-8)	2
Severe pain (9-10)	3



VAS SCALE

MATERIAL AND METHOD

1. Literature- Available in all ayurved samhitas and modern text book.
2. Study Centre – Ashtang Ayurved Hospital, Pune – 30.
3. Number of Patients- 50 Patients

4. Type of study -An Open Label Single Arm Clinical Trial Purposive Sampling Technique

Drug Administration

The selected patient will be administered *Guda Vyoshadi Kwath*

Dose: 40 ml BD after meal

Dosage form: *Kwath*

Route of administration: Oral / *Abhyantar*

Time of administration: Twice a day

Duration of therapy: Starting from 5th day of menstruation up to next menstruation for 3 Menstrual Consecutive cycle.

OBSERVATION AND RESULT

1. Demographic analysis

A. Age

Table shows classification of patient according to age group.

Sr. No	Age	N	%
1	20 TO 25 YEARS	27	54%
2	26 TO 31 YEARS	13	26%
3	32 TO 35 YEARS	10	20%
Total		50	100%

Above table shows that, there were total 27(54%) patient in age group between 20 to 25 years.

There were total 13(26%) patient in age group between 26 to 31 years.

There were total 10(20%) patient in age group between 32 to 35 years.

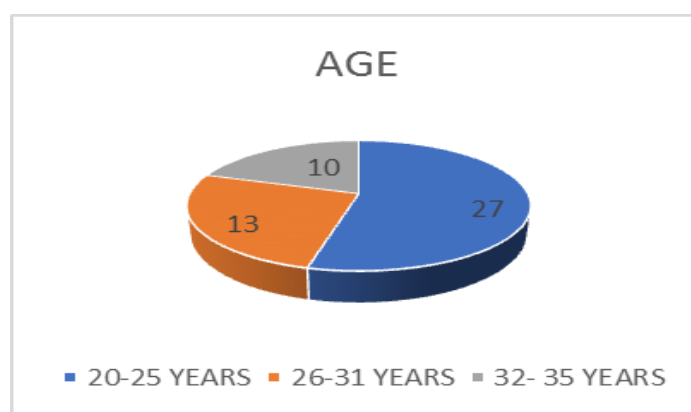


Figure shows classification of patient according to age group

B. *Prakruti*

Table shows classification of patient according to *Prakruti*.

Sr. No	<i>Prakruti</i>	N	%
1	VP	15	30%
2	VK	28	56%
3	KP	7	14%
Total		50	100%

Above table shows that, there were total 15 (30%) patient are *Vatapittaj*.

There were total 28 (56%) patients are *Vatakaphaj*.
There were total 7 (14%) patients are *Kaphapittaj*.

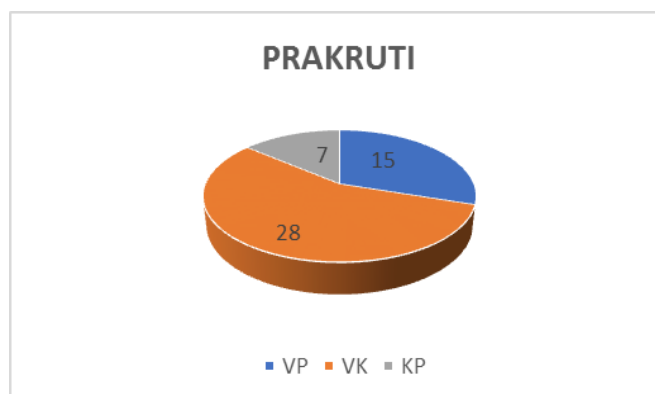


Figure shows classification of patient according to *Prakruti*.

C. Occupation

Table shows classification of patients according to Occupation.

Sr. No	Occupation	N	%
1	Students	15	30%
2	Housewife	17	34%
3	Service	18	36%
Total		50	100%

Above table shows that, there were total 15 (30%) patients are Student.

There were total 17 (34%) patients are Housewife.

There were total 18 (36%) patients are Service women.

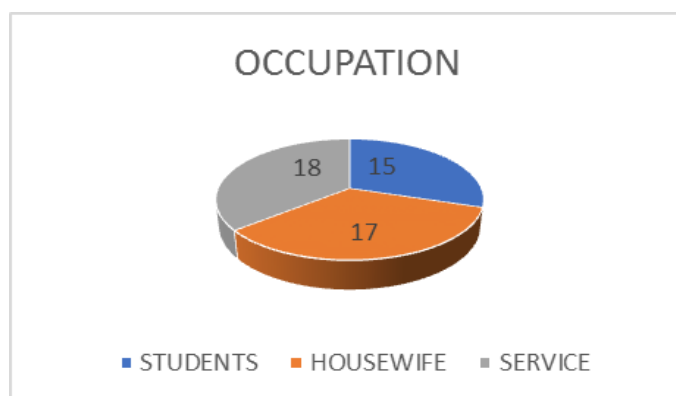


Figure shows classification of patients according to Occupation.

D. Marital Status

Table shows classification of patient according to Marital Status.

Sr. No	Marital Status	N	%
1	Unmarried	24	48%
2	Married	26	52%
Total		50	100%

Above table shows that, there were total 24 (48%) patients are Unmarried.

There were total 26 (52%) patients are married.

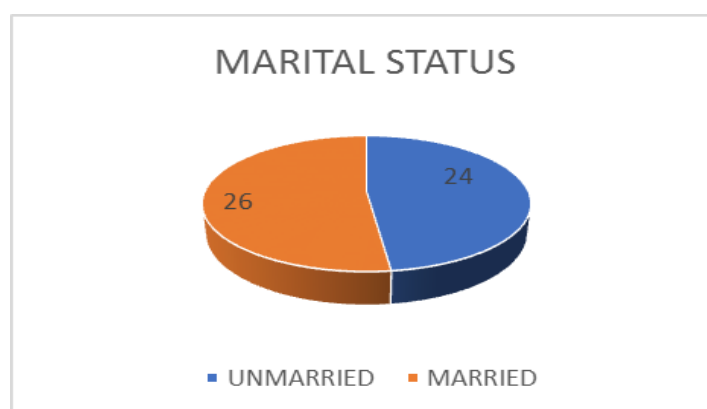


Figure shows classification of patient according to Marital Status.

E. O/H

Table shows classification according to Obstetric History.

Sr. No	O/H	N	%
1	Nullipara	33	66%
2	Primipara	6	12%
3	Multipara	11	22%
Total		50	100%

Above table shows that, there were total 33 (66%) are Nullipara.

There were total 6 (12%) are Primipara.
There were total 11 (22%) are Multipara.

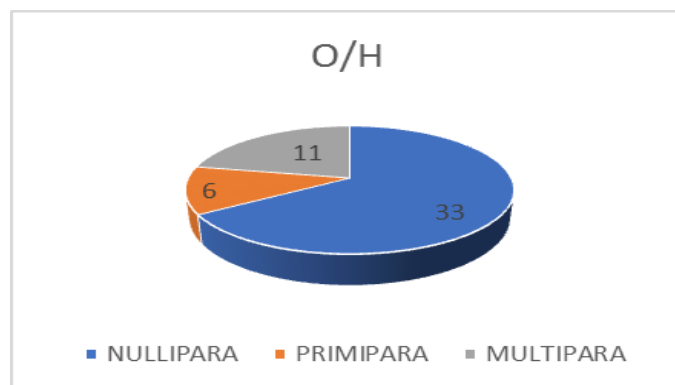


Figure shows classification according to Obstetric History.

2. Gradationwise frequency distribution of patients

1. Duration of Menstrual blood

Table shows frequency distribution of Duration of menstrual blood

Grade	Duration of menstrual blood			
	Frequency		%	
	BT	AT	BT	AT
0	26	44	52%	88%
1	14	6	28%	12%
2	4	0	8%	0%
3	6	0	12%	0%
Total	50	50	100%	100%

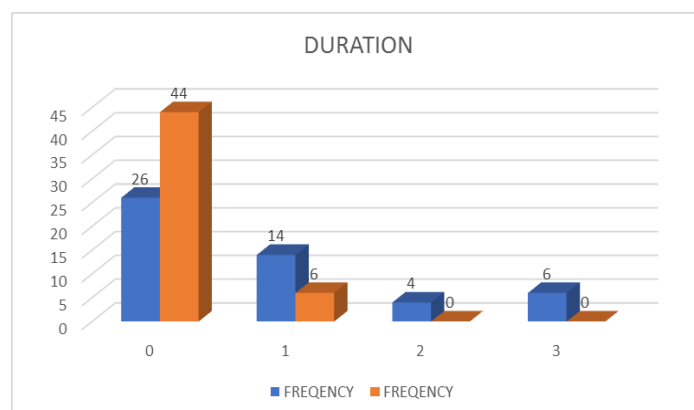


Figure shows frequency distribution of menstrual blood.

Before treatment - There are 26 (52%) patients of Grade -0 with 4-7 days, there are 14 (28%) patients of Grade-1 with 3 days, there are 4 (8%) patients of Grade -2 with 2 days, there are 6 (12%) patients of Grade -3 with 1 days.

After treatment - There are 44(88%) patients of Grade-0 with 4-7 days, there are 6(12%) patients of Grade-1 with 3 days, there are no patients of Grade-2 with 2 days and Grade -3 with 1 days.

2. Interval between two cycles

Table shows frequency distribution of Interval Between two Cycles.

Grade	Interval between two cycles			
	Frequency		%	
	BT	AT	BT	AT
0	6	14	12%	28%
1	8	36	16%	72%
2	2	0	4%	0%
3	34	0	68%	0%
Total	50	50	100%	100%

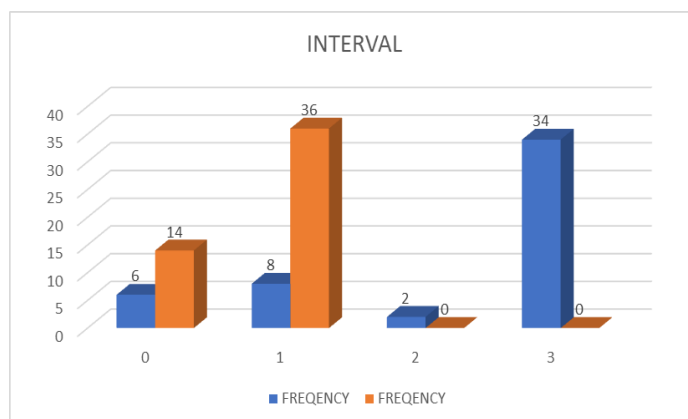


Figure shows frequency distribution of interval between two cycles.

Before treatment - There are 6(12%) patients of Grade - 0 with 24-34 days, there are 8(16%) patients of Grade -1 with 35-39 days, there are 2(4%) patients of Grade -2 with 40-45 days, there are 34(68%) patients of Grade-3 with Above 45 days.

After treatment - There are 14(28%) patients of Grade - 0 with 24-35 days, there are 36(72%) patients of Grade - 1 with 35-39 days, there are no patients of Grade -2 with 40-45 days and Grade -3 with above 45 days.

3. Quantity of menstrual flow

Table shows frequency distribution of Quantity of menstrual flow

Grade	Quantity of menstrual flow			
	Frequency		%	
	BT	AT	BT	AT
0	9	27	18%	54%
1	16	22	32%	44%
2	10	1	20%	2%
3	10	0	20%	0%
4	5	0	10%	0%
TOTAL	50	50	100%	100%

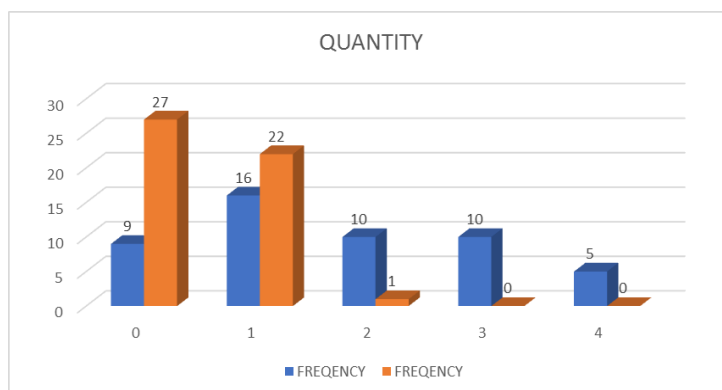


Figure shows frequency distribution of quantity of menstrual flow.

Before treatment - There are 9 (18%) patients of Grade -0 with 3 or more than 3 pads used, there are 16(32%) patients of Grade -1 with 2 pads used, there are 10(20%) patients of Grade -2 with 1 pad used and Grade -3 with < 1 pad used, there are 5(10%) patients of Grade -4 with Spotting.

patients of Grade -3 with < 1 pad used and Grade -4 with Spotting.

After treatment - There are 27(54%) patients of Grade - 0 with 3 or more than 3 pads used, there are 22(44%) patients of Grade -1 with 2 pads used, there are 1(2%) patients of Grade -2 with 1 pads used, there are no

4. Pain during menses

Table shows frequency distribution of Pain During menses.

Pain during menses				
Grade	Frequency		%	
	BT	AT	BT	AT
0	1	19	2%	38%
1	20	31	40%	62%
2	22	0	44%	0%
3	7	0	14%	0%
Total	50	50	100%	100%

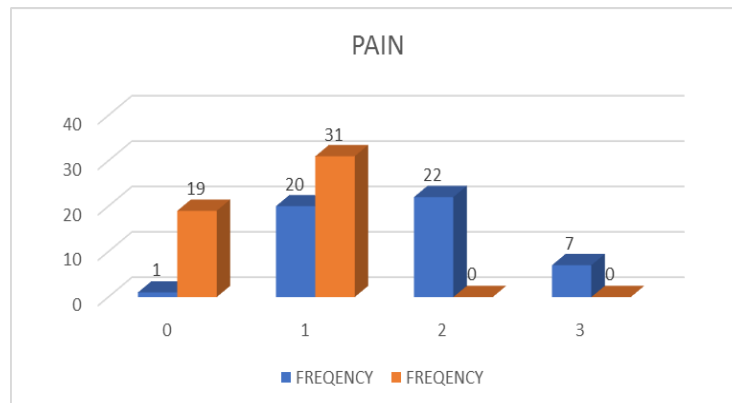


Figure shows frequency distribution of Pain during menses

Before treatment - There are 1(2%) patients of Grade -0 with No pain, there are 20(40%) patients of Grade -1 with Mild Pain, there are 22(44%) patients of Grade -2 with Moderate pain, there are 7(14%) patients of Grade -3 with severe pain.

After treatment - There are 19(38%) patients of Grade -0 with No pain, there are 31(62%) patients of Grade -1 with Mild pain, there are no patients of Grade -2 with moderate pain and Grade -3 with Severe pain.

DISCUSSION

The study was carried out in 50 patients. Discussion regarding observation and effect of therapy is presented as follows –

Age

It was observed that maximum number 54% of patients belonging to age group 20-25 years followed by 26% of patients in age group 26-31 years. There are 20% patients in age group 32-35 years. This shows that When ovulatory menstrual cycle established around 20-25 years of age *Artavkshaya* is more common in this age group.

Prakruti

It was observed that maximum number 56% patients are of *Vata Kaphaj Prakruti* followed by 30% patients are of *Vata Pittaj Prakruti* and 14% patients are of *Kapha Pittaj Prakruti*.

This shows that *Vata dosha* is dominant *dosha* in body to bring normal menstruation but it is also an important cause of obstruction in menstrual blood flow too. *Avaran* of *Kapha dosha* causes pathology in this study i.e.

Artavkshaya. Hence, maximum *Vata-kaphaj prakruti* patients are suffered.

Occupation

It was observed that Maximum 36% patients are Service women followed by 34% patients are Housewife followed by 30% patients are Student. This shows that due to faulty lifestyle and stress, also suppression of urge causes *tridosha dushti* that leads to *Artavkshaya* in Service Women.

Marital status

It was observed that Maximum 52% patients are Married followed by 48 % patients are Unmarried. This may be due to married women having increasing concerns about regular menstruation due to either lack of education or availability of resources for a planned conception.

Obstetric history

It was observed that Maximum 66% patients are Nullipara followed by 22% patients are Multipara followed by 12 % patients are Primipara.

The condition gradually decreases with child birth. Hence, maximum Nullipara patients are Suffered.

Discussion on Result

Assessment of symptoms was done by standard method and result obtained as follows-

1. Duration of menstrual blood

After treatment it is observed that 44 (52%) patients got complete relief from Duration of menstrual blood of Grade -0.

The changes were found to be statistically significant. *Guda Vyoshadi kwath* has *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*.

2. Interval between two cycles

After treatment, it is observed that 36(72%) patient having decrease the interval between two cycles (35-39) days i.e. Grade -1.

The changes were found to be statistically significant. Drugs have minerals, vitamins, carbohydrates, proteins which helped in improving the general health of the patients along with helping in the good metabolism and therefore maintain the normal hormonal balance in the body which are responsible for normal menstruation.

3. Quantity of menstrual flow

After treatment, it is observed that 27 (54%) patients having increase the quantity of menstrual flow i.e. Grade -0.

The changes were found to be statistically significant. As drug is having antioxidant property which helps in maintaining the proper oestrogen production, ovulation and help in maintaining the luteal phase. Antioxidants also increase the anabolic activity in body hence. increase the thickness of endometrium results in increasing the amount of blood loss.

4. Pain during menses

After treatment, it is observed that 31 (62%) patients got decrease the pain during menses i.e. Grade-1.

The changes were found to be statistically significant. As *Vedna* is the cardinal symptom of *Vatadushti*. Also drugs possess antispasmodic, carminative and anti-inflammatory property which helps in relieving the pain during menstruation.

CONCLUSION

After scrutinizing the study regarding efficacy of *Guda Vyoshadi Kwath* in *Artavkshaya*, following conclusion can be drawn:

- *Artavakshaya* is explained as a symptom in our *Samhitas* also it is considered as the precursor of *Nashtartava* according to *Ayurveda*.
- According to contemporary science also oligomenorrhoea and hypomenorrhoea are the precursor of Amenorrhoea and has potential to cause infertility.
- As *Artavakshaya* has potential to cause infertility. Considering its clinical importance, it can be considered an independent disease in modern era.
- Observation studies shows stress to be one of the causative factors behind decreased menstruation, this can be explained by stress factor causing hampering of HPO axis due to change in normal pulsatile phenomena of GnRH hormone.

- *Artavakshaya* is characterised by *Yathochita Kala Adarshanam*, *Alpata* and *Yonivedana*. It is caused by the *Avarana* of *Kapha* on *Apana Vayu* obstructing the *Artava Vaha Srotasa*.
- 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*"
- *Artavajanya Drugs* and *Drugs* having Phytoestrogen, rich in antioxidant can give better results it treating *Artavakshaya*.
- After intervention of *Guda Vyoshadi Kwath* have significant effect on all parameters.
- The drugs was statistically significant in *Artavakshaya* and statistically significant difference is seen in the symptoms of *Artavkshays* after given *Guda Vyoshadi Kwath*.
- Thus null hypothesis (H_0) is rejected and alternate hypothesis (H_1) is accepted i.e. there is significant effect of *Guda Vyoshadi Kwath* in *Artavakshaya*.

Highly significant result were found in

- A. Age group- 20-25 years
- B. Married women
- C. Service Women
- D. *Vata-kaphaj prakruti*
- E. Nulliparous women

It can be concluded that, from result *Guda Vyoshadi Kwath* is effective in *Artavkshaya*.

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