

Role of Pradarahara kashaya ghan granules in the management of *Asrigdara* w.s.r to Dysfunctional Uterine Bleeding (DUB) - A case study

Case Report

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Abstract

Menstruation plays an important role in women's life to get a healthy progeny. The first menstruation (menarche) occurs between 11 and 15 years with a mean of 13 years. The normal duration of menstruation is 4-5 days with at intervals of 21-35 days. Any deviation from this, causes a great impact on the quality of a woman's physical, emotional, social and reproductive life. The word *Asrigdara* is characterised by excessive, prolonged, menstrual or inter-menstrual bleeding in ayurvedic classics. According to sign & symptoms, *Asrigdara* can be closely correlated with dysfunctional uterine bleeding (D.U.B). DUB is reported to occur in 9 to 14 % women between menarche and menopause. It is mostly found in extremes of the age i.e in adolescents and peri-menopausal age group due to dysfunction of Hypothalamic-Pituitary-Ovarian axis but can also be found in reproductive age also. In India, the reported prevalence of AUB is around 17.9% (1). The incidence of DUB varies according to age and parity. For the present study "*Pradarahara Kasaya*" (2) which is a combination of 10 drugs namely *Khadira*, *Chandan*, *Bala*, *Asana*, *Sariva*, *Vasa*, *Japa*, *Musta*, *Shalmali* and *Amalaki* were taken in the form of granules which are easy palatable. Diagnosis is confirmed by the complaints described by the patients. Assessment has been done before and after treatment. In present study, it is observed that Pradarahara kasaya has provided significant relief in all the symptoms of *Asrigdara*.

Key Words: Menstruation, *Asrigdara*, Dysfunctional uterine bleeding, H.P.O Axis.

Introduction

"Yadapatyanam mulam naryah param nrunam" (C. Ch. 30/5-6)

As said by Acharya Charak Stri is the root cause of progeny and diseases of reproductive organs causes impediment in procreation. In this modern competitive world, women have to play multiple roles. They are working women and have responsibilities of family also. So, they are unable to give proper attention to their health. Other factors like change in lifestyle, unhealthy food habits, irregular pattern of sleeping etc. These factors together put a strain on her physical and mental health which is likely to disturb the HPO axis and affect the menstrual rhythm, which further leads to impairment in function of reproduction also.

The word *Asrigdara* means prolonged or excessive bleeding. Due to excessive excretion of Raja it is named as Pradara and since there is excessive excretion of Asrk it is known as *Asrigdara*. In classics many causative factors like Ati lavana, Amala, Katu rasa sevana, Viruddha Ahara and Vihara like Chinta,

Bhaya, Krodha etc. are explained as causative factors of *Asrigdara* (3). *Asrigdara* if not taken care of causes many updravas like *Bhrama* (Mental confusion), *Moorcha* (Giddiness), *Daha* (Burning sensation), *Angamarda* (Bodyache), *Pralapa* (Delirium), *Pandutwa* (Anaemia), *Tandra* (Drowsiness) (4) etc.

In modern science, Dysfunctional uterine bleeding is defined as a state of abnormal uterine bleeding without any clinically detectable organic, systemic and iatrogenic cause (pelvic pathology i.e. tumors, inflammation or pregnancy is excluded). Currently, DUB is defined as a state of abnormal uterine bleeding following anovulation due to dysfunction of Hypothalamo-Pituitary Ovarian Axis (5).

Case Study

A 38-year-old female Muslim patient, came to O.P.D No. 104 of Parul Ayurveda Hospital, Department of Stri Roga Evum Prasuti Tantra on the date of 21/07/2021. She presented herself with the complaints of excessive bleeding p/v during menstruation, prolonged bleeding for 8-10 days with interval of 15-20 days since last 1 year. She had bleeding for 8-10 days, which was heavy with passage of large clots for first 6-7 days (6-7 pads/day), next 2-3 days moderate bleeding (2-3 pads/day) was seen. She was having complaint of severe lower abdomen pain during menses since last 1 year. Associated complaints like generalised weakness, backache, loss of appetite, giddiness, feeling of heat in the body etc. during menses were also present since last 4-5 months. As a result, patient was not able to do her

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normal activities. With these complaints, patient approached PAH on 21/07/2021 for ayurvedic management.

Past History

Medical history: No History of Diabetes mellitus, Hypertension, Thyroid dysfunction

Surgical history: Tubal Ligation done 3 years back

Drug history: History of taking Tab Ovral-G for 8 months back for 3 cycles but symptoms recurred after discontinuation of the treatment.

Family history: Not significant

Personal history

Occupation: Housewife, **Food habit:** Irregular, **Diet:** Mixed, oily and spicy food (red chilly), Extra salt intake in food, Non-veg daily, **Appetite:** good, **Bowel:** Irregular, **Micturition:** 4-5 times/day & 1 time/night, **Sleep:** 2 hours/day & 6-7 hours/night, **Habits:** Tea intake 3-4 times/day, **Exercise:** nil.

Menstrual history

Menarche: 13 years, **LMP:** 11/07/2021, **Previous LMP:** 24/06/2021

Table 1: Menstrual history

Parameters	Current Menstrual history	Past menstrual history (1 Year back)
1. Regularity	Irregular	Regular
2. Quantity	6-7 pads/day	2-3 pads/day
3. Consistency	Large clots +++	Watery flow
4. Smell	Foul smell +++	No foul smell
5. Duration	8-10 days	4-5 days
6. Interval	15-20 days	28-30 days
7. Pain	Painful +++	Mild pain +
8. Colour	Blackish	Reddish

Obstetric history

- Parity - 3, Abortion - 0, Live - 3, Death - 0
- All Full-Term Normal Delivery at home

Contraceptive history

Laparoscopic Tubectomy done 3 years back.

On examination

- General condition – pallor ++
- Pulse rate – 86 bpm
- B.P – 110/70 mm Hg
- R.R – 18/min
- H.R – 86 bpm
- Height – 158 cm, Weight – 58 kg, BMI – 23.2

Systemic examination

- Respiratory system: B/L chest clear, Air Entry Bilaterally Equal
- Cardiovascular system: S1 S2 clear, heard
- CNS: Patient is conscious and well oriented. All superficial reflexes are intact.
- GIT: Soft abdomen, bowel sound heard, no pain & tenderness, TL scar present

Per speculum examination

- Mild blood mixed mucoid discharge +
- Foul smell - absent
- Cervix healthy

Per vaginal examination

- Uterus anteverted, anteflexed, normal size
- Freely mobile
- B/L Fornices non-tender

Investigations (Done on 21/07/2021)

- Before treatment- CBC- Hb: 8.2 g/dl, TLC Count: 7600/cmm, Platelet count: 223000/cmm. USG (Pelvis): Uterus 7*2.3*3.6 cm normal in size, CET-6 mm, Right ovary - 3*3 cm, Left ovary – 2.7*3 cm, No any significant abnormality detected.
- After treatment: Hb – 10.5 g/dl

Table 2: Ashtavidha Pariksha

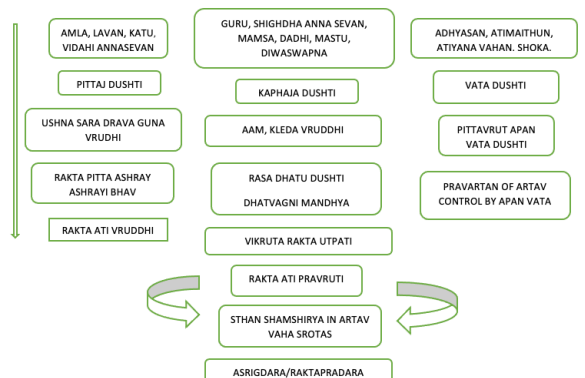
1	Nadi	Vata-pitta
2	Mala	Saama, Samhat
3	Mutra	Prakrita
4	Jivha	Uplipta
5	Shabda	Spashta
6	Sparsha	Anushna sheeta
7	Druk	Pandur
8	Akruti	Madhyam

Table 3: Dashavidha Pariksha

1	Prakriti	Pitta kapha
2	Vikriti	Pitta
3	Sara	Madhyama
4	Samhanana	Madhyama
5	Pramana	Madhyama
6	Satmya	Sarvarasa
7	Satva	Avara
8	Vaya	Madhyam
9	Vyayamshakti	Pravara
10	Aharashakti	Madhyam

Samprapti

Due to ati sevana of nidanas vatadi doshas get vitiated as well as causes the pitta prakopa (dravaguna of pitta increases) and increases the pramana (quantity) of rakta (ashraya-ashrayi bhava). The vitiated rakta reaches the garbhashyagata rajovaha siras and apana vayu expels the increased blood in the form of excessive bleeding known as *Asrigdara* (6).



Samprapti ghataka

- Dosha: Pitta-Kapha
- Dushya: Rasa, Rakta
- Srotas: Rasavaha, Artavavaha
- Marga: Abhyantar
- Mahabhuta: Pruthwi, Jala, Agni
- Udbhavasthana: Pakvashaya
- Vyaktasthana: Garbhashaya

Assessment criteria (7):

Subjective Parameters

Table 4: Assessment of cardinal symptoms in the study

S.No.	Characters	Variables	Score
1	Amount of bleeding per menstrual cycle	< 3 pads/day (average)	0
		3-4 pads/day (moderately excessive)	1
		5-7 pads/day (excessive)	2
		> 7 pads/day (very excessive)	3
2	Duration of menstrual bleeding	Bleeding for < 5 days (normal)	0
		6-7 days (moderately prolonged)	1
		8-9 days (prolonged)	2
		>9 days (very much prolonged)	3
3	Inter-menstrual bleeding	25-30 days (normal)	0
		20-24 days (short)	1
		15-19 days (very short)	2
		< 15 days (highly abnormal)	3
4	Pain during menstruation	No pain	0
		Mild pain	1
		Moderate Pain	2
		Severe Pain	3
5	Consistency	Thin	0
		Mucoid	1
		Mucoid with clots	2
		Clots (large size)	3

Table 5: Assessment of associated symptoms in the study

S.No	Variables	Character	Score
1	Angamarda	Absent	0
		Present	1
2	Daurbalya	Absent	0
		Present	1
3	Bhrama	Absent	0
		Present	1
4	Aruchi	Absent	0
		Present	1
5	Daha	Absent	0
		Present	1
6	Trusha	Absent	0
		Present	1

Drug review

In the present study a combination of ten drugs has been taken which were mostly having Raktastambhak, Garbhashayasankochaka, Balya, and Raktshodhaka properties. All the drugs were taken in equal quantity and kwath was prepared by adding sixteen times of water and then kwath was filtered when it gets reduced to half. The liquid obtained was again boiled until all the water contents evaporates and semi-solidified form (Ghan) was obtained. Small boluses were prepared from this ghan and placed on the tray and left to dry in hot air oven. After complete drying, fine powder was prepared from these boluses. Sugar syrup was prepared and boiled until appearance of Avaleha siddha lakshanas. Finally, the powder was added with thorough stirring to get a homogeneous blend. The blended mass was passed through #10 sieve to obtain granules. The dried granules were placed in airtight container.

Table 6: Properties of drugs (8)

S. NO.	DRUGS	BOTANICAL NAME	RASA	GUNA	VIRYA	VIPAK A	DOSHAKAR MA	PART USED
1	Khadira	<i>Acacia catechu</i> Willd	Tikta, Kashaya	Laghu, Ruksha	Sheeta	Katu	Kapha Pitta Shamak	Bark
2	Sita (Chandan)	<i>Santalum album</i> L.	Tikta, Madhura	Laghu, Ruksha	Sheeta	Katu	Kapha Pitta shamak	Bark
3	Bala	<i>Sida cordifolia</i> Linn.	Madhura	Laghu, Snigdha, Pichila	Sheeta	Madhura	Tridosha Shamak	Roots
4	Asana (Beejaka)	<i>Pterocarpus marsupium</i> Roxb.	Kashaya, Tikta	Laghu, Ruksha	Sheeta	Katu	Kapha Pitta Shamak	Heartwood
5	Sariva	<i>Hemidesmus indicus</i> R.Br	Madhura Tikta	Guru, Snigdha	Sheeta	Madhura	Tridosha Shamak	Root
6	Vrsa (vasa)	<i>Adhatoda vasica</i> Nees.	Tikta, Kashaya	Laghu, Ruksha	Sheeta	Katu	Kapha Pitta Shamak	Leaves
7	Japa	<i>Hibiscus rosa-sinensis</i> L.	Kashaya, Tikta	Laghu, Ruksha	Sheeta	Katu	Kapha Pitta shamak	Flowers
8	Ambhoda (Musta)	<i>Cyperus rotundus</i> Linn.	Tikta, Katu, Kashaya	Laghu, Ruksha	Sheeta	Katu	Kapha Pitta Shamaka	Tuber
9	Mochaka (Shalmali)	<i>Salmaia malabarica</i> Schott. and Endl.	Kashaya	Laghu, Snigdha	Sheeta	Madhura	Pitta Shamak	Stem bark
10	Amalaki	<i>Emblia officinalis</i> Gaertn.	Panch ras	Guru, Ruksha, Sheet	Sheeta	Madhura	Tridosha Shamak	Fruits

Administration of granules:

Dose – 12 gms in two divided doses.

Anupana – Madhu

Route of administration – Oral

Time of administration – Morning and evening, before food (Pragbhakta)

Pathya

Aahara – wheat, Mung & masoor daal, Goat & cow's milk, Ghee, Amalaki, Banana, Grapes, Munakka, Sugarcane juice, Sugar, Mishri, etc

Vihara – Bathing with cold water, sit in cool breeze, external application of chandan, sit in moonlight etc

Apathya

Aahara - Excessive salty, Sour, Guru (heavy), Katu (hot), Vidahi (producing burning sensation) & Snigdha (unctuous) substances, Curd, Payasa (rice cooked with milk and sweetened), Sukta (vinegar), Wine etc

Vihara – Indigestion, excessive coitus, excessive riding, excessive walking, grief, emaciation, weight lifting, trauma, day sleeping etc.

Study duration - 90 days

Medicine was started from first day of the visit continuously for 2 months.

Follow up

Every 15th day upto 2 cycles and final follow up without medicine on 5th day of next menses.

Observation

The patient came with the complaints of excessive and intermenstrual bleeding with passage of large clots before treatment. After continuous treatment for 2 months all the symptoms regressed gradually as shown in the table below.

Table 7: Symptoms before and after treatment

Symptoms	Score before t/t	Score on 1 st cycle with medicine	Score on 2 nd cycle with medicine	Score on 3 rd cycle without medicine
L.M.P	10/07/2021	05/08/2021	03/09/2021	04/10/2021
1. Amount of bleeding	2	1	0	0
2. Duration	3	1	0	0
3. Intermenstrual bleeding	2	0	0	0
4. Pain	3	2	1	0
5. Consistency	3	2	0	0
Total score	13	6	1	0
Total no. of pads in entire cycle	41-54 pads	14-17 pads	9-12 pads	9-12 pads
Associated complaints	Gen. weakness+++	+	-	-
	Loss of appetite ++	-	-	-
	Bodyache+++	+	-	-
	Feeling of heat in the body+++	+	-	-

Discussion

In modern medicine, there are various medical and surgical methods for the management of *Asrigdara* (D.U.B). All these treatments have their own limitations and side effects. The disorders which respond to hormonal treatment also tend to undergo spontaneous remission after their withdrawal. So, there is a great need to find out an effective and safe therapy to manage this condition. Some important properties of *Pradarahara kashaya* contents that help in breaking the pathogenesis of *Asrigdara* (D.U.B) are -

- **Khadira:** This drug is having Anti-haemorrhagic, anti-inflammatory, antioxidant and hepato-protective properties. Khadira helps healing the wounds and ulcers in vaginal mucosa. Tannins present in the drug is having anti-haemorrhagic property (9).
- **Chandan & Bala:** Both the drugs possess analgesic, anti-inflammatory, hepatoprotective, anti-oxidant, antispasmodic activity. Alpha-santalol present in *Santalum album* (10) and Ephedrine and pseudoephedrine present in *Sida cordifolia* (11) have a proven action on neurological symptoms like anxiety, stress and depression. So, they can work on

disturbed HPO axis and can regulate the menstrual pattern also.

- **Asana:** Methanol extract of *Pterocarpus marsupium* showed potential effect of reverting the reproductive cycle towards normal in PCOS rats. So, it may help in correcting the disruptive ovarian function in D.U.B. Sections of ovaries from PCOS rat treated with *Pterocarpus marsupium* methanol extract 200mg/kg and 400mg/kg b.w showing the presence of normal developing follicles and normal corpus luteum with intact granulosa layer (12).
- **Sariva:** Ethanol extract of *Hemidesmus indicus* root is used in estrogen deficiency induced osteoporosis and to prevent or treat female hormonal disturbance related disorders and assuaging symptoms of menopausal conditions in ovariectomised rats (13).
- **Vasa:** Vasa is having uterotonic and wound healing property. Vasicine present in *Adhatoda vasica* has shown uterotonic activity in different species including human beings and the effect was influenced by the degree of priming of the uterus by estrogens. In both pregnant and non-pregnant human uteri vasicine initiate rhythmic contractions of myometrial strips and trial suggests its effect comparable to oxytocin

and methergin. It is used in various bleeding disorders, due to its styptic action (14).

- Japa: Hibiscus rosa sinensis is having Reproductive, antioxidant, anti-inflammatory, antidepressant, anti-haemolytic, hepatoprotective activity (15). The benzene extract of Hibiscus rosa sinensis flowers showed estrogenic activity in immature mice by early opening of the vagina, premature cornification of the vaginal epithelium and an increase in uterine weight (16).
- Musta: The tuber part of C. rotundus is one of the oldest known medicinal plants used for the treatment of dysmenorrhoeal and menstrual irregularities (17). Tuber extract of C. rotundus showed antiestrogenic effect on reducing thickness of the endometrial lining and caused no proliferation on endometrial epithelial cells (18).
- Shalmali: It is used in many bleeding problems such as menorrhagia, metrorrhagia, excessive menstrual bleeding of various aetiology, haemorrhoids, haemoptysis of pulmonary tuberculosis etc (19).
- Amala: Researchers observed the haematological effects of Amalaki on both experimental animals and humans. Haque and Sinha (2015) experimented that aqueous extracts of Emblica officinalis fruit administration significantly increases red blood cell, haemoglobin concentration and WBC count in wister albino rats (20). The *n*-butanol present in Amalaki has a proven effect on the female reproductive system by assessing its estrogenic and gonadotropic activities (follicle-stimulating hormone-like [FSH] activity & luteinizing hormone-like [LH] activity) (21).

Antioxidant and free radical scavenging activity of constituent drugs helps in sroto shodhana and garbhasaya shodhana, thereby reducing inflammation and uterine congestion. The anti-inflammatory action of drugs incorporated in Pradarahara Kashaya helps in reducing the prostaglandin levels, thus reducing the menstrual blood loss, dysmenorrhoea and pelvic congestion which are the main factors in the pathogenesis of the disease. The drugs having hepatoprotective property act on liver to correct the metabolism and hormonal imbalance.

The drugs used in *Pradarahara kasaya* are having Kashaya & Tikta rasa, Laghu & Rukshna guna, Sheeta virya. Tikta rasa is having *Rochana, Deepana, Pachana* properties that helps in *Dhatwagni mandya* and performs dosha pachana. *Rakta Prasadana* property of tikta rasa help in excessive bleeding (22). Kashaya ras act as *Raktasangrahan, Rakta stambhan* (23). Madhura ras is having *Trishna Nigrahana, Dahashamana* properties (24) that helps in associated symptoms like Daha, Trishna and Bhrama. Laghu guna also is agni sandipan and sroto shodhan. Sheeta virya helps in pittashaman & raktastambhan. *Sharkara* used to prepare granules are mentioned in the *Shonitasthapan Gana* of charak samhita (25). Madhu used as prakshepa is having properties like *Vranaropan, Balya, Srotovisodhana, Sandhana*, etc (26). Hence, Pradarahara kasaya balances all the three doshas and

helps in terminating the pathogenesis of *Asrigdara* and also in providing symptomatic relief.

Conclusion

On the basis of above references, it can be postulated that Pradarahara kasaya modulates the menstrual pattern by working on hypothalamo-pituitary ovarian axis. Thus, can help in correcting the ovulation defect which is the underlying cause of DUB in 80% of the women. Sariva and Japa help to control the excessive bleeding by providing hormonal support. Antiestrogenic effect of musta helps in endometrial hyperplasia, which is leading cause of DUB in perimenopausal women. Uterotonic effect of vasa helps in arresting bleeding. Thus, we can say that Pradarahara kasaya in the form of granules acts at various levels to control the symptoms and reverse the pathogenesis of *Asrigdara*.

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