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Case Report

Ayurveda Approaches for Management of Chronic Secondary Amenorrhoea Complexed with Hormonal Replacement Resistance, PCOD, and Thyroid Dysfunction: A Comprehensive Case Analysis

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Abstract



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Ayurvedic protocols offer a holistic approach in managing Female pathologies by targeting the underlying imbalances in the HPO axis. In gynecological practices, hormonal therapy is a common approach for management of secondary amenorrhea associated with Polycystic Ovary Disease (PCOD), thyroid dysfunction, which interfere with endocrinal system and hypothalamic-pituitary-ovarian (HPO) axis. The present case involves secondary amenorrhea, which has persisted for 8-10 years, compounded by resistance to hormonal replacement therapy, thyroid dysfunction and polycystic ovary Disease (PCOD) present from 10-11 years. Initially, the menstrual cycle interval increased to 4-5 months, then over a period natural menstruation ceased and remain responsive to withdrawal bleeding for about 2 years but later patient become irresponsive to withdrawal bleeding even after usage of hormones. The Ayurvedic approach emphasizes individualized treatment plans that address both the symptoms and the root causes of these conditions. The treatment regimen included *Shodhana Chikitsa*, specifically *Basti* and *Nasya*, in conjunction with oral medications. Over the course of one year, the patient experienced gradual improvement. Initially, menstruation resumed naturally after a 6-month interval, followed by 2 months, and eventually at interval of 35-40 days with improved regularity and quality of bleeding. This transition marked a shift from amenorrhea and withdrawal bleeding to irregular and then to regular menstrual cycles by Ayurveda treatment.

Keywords: Amenorrhoea, Ayurveda, *Basti*, *Nasya*, Hormonal therapy, Withdrawal bleeding

INTRODUCTION

Absence of menstruation for duration of 6 months or more in whom normal menstruation has been established is termed as secondary amenorrhoea ¹. The prime cause being the disruption or incoordination of the hypothalmo-pituitary-ovarian axis which is responsible for the coordination between hormones and reproductive organs ².

In ayurveda the entire system involved in the process of stimulation, formation, maintenance and shedding of endometrial cells is referred as *Aartavvaha Strotas* with its root being *Garbhashaya* and *Aartavvahi Dhamniya*. ³

Menstruation is the visible manifestation of cyclic physiologic uterine bleeding due to shedding of endometrium following invisible interplay of hormones mainly through HPO axis ⁴. Ayurveda classics mentioned

that *sookshma kesha* like *sira* are responsible to regenerate the endometrium by providing nourishment over whole month to uterus ⁵.

This case study is about a 29 yrs old female with the primary complaint of secondary amenorrhoea along with history of withdrawal bleeding, Hypothyroidism and PCOD. The treatment primarily aimed at correction of vitiated *Vata dosha*, *dhatu pooshan* which ultimately leads to correction of HPO axis. As a result, the patient gradually shifted from withdrawal bleeding to natural menstruation and further resulted in regulation of cyclic interval.

CASE DISCUSSION

A 29 years old female visited OPD of PTSR Dept. Rishikul Campus, Haridwar with the chief complaint of Secondary Amenorrhoea since 8-10 yrs, She had a

history of withdrawal bleeding since 2 yrs. She further had associated complaint of Hypothyroidism since last 11 yrs and PCOS since 2 yrs. The patient was underweight as well with no congenital anatomical

abnormalities of the reproductive tract system. Also there was no such relevant family history from maternal side.

PERSONAL DETAILS AND GENERAL PHYSICAL EXAMINATION

Chronology of Menstrual History

S.NO.	ONSET OF MENSUS	NATURE OF BLEEDING	DURATION OF BLEEDING	AMOUNT OF BLEEDING	INTERVAL
1.	December 2022	Withdrawal	3 days	3 regular sized pad/ day; partially soaked	40-45 days
2.	January 2023	Withdrawal	3- 5 days	3 regular sized pad/ day; partially soaked	30-40 days

PERSONAL HISTORY	VITALS	GENERAL EXAMINATION
Appetite- Reduced Bowel – constipated; incomplete evacuation Micturition – Normal; 3-4 times/ day Sleep- Disturbed	Blood pressure- 120/78 mm Hg Pulse rate- 80 beats/ min Height- 156 cm Weight- 45 kg BMI- 18.5	Build- Normal Pallor – Absent Icterus- Absent Cynosis- Absent Edema- Absent
HAEMATOLOGICAL- [05/10/2023]	THYROID PROFILE- [05/10/2023]	ULTRASOUND LOWER ABDOMEN- [14/07/2022]
Haemoglobin- 10.4 gm/dL TLC- 3730/uL MCV- 72.9 fL MCHC- 29.8 g/dL Haematocrit – 34.8 % Platlet count – 1.17 lakh/cumm	Total T3- 107.00 nmol/L Total T4- 10.60 µg/dl TSH- 9.27 uIU/mL	Bilateral polycystic ovaries Rt ovary- 32 × 33 × 18 mm ; vol- 10 cc Lt ovary- 34 × 34 × 16 mm ; vol- 10 cc Multiple peripherally placed antral follicles and increased stromal echogenicity.

INVESTIGATION

Management Protocol

The treatment involved several visits with the primary aim of correcting the vitiated *Vata dosha* and ensuring proper *Dhatu poshana* (nourishment of tissues) for the proper formation of *Artava upadhatu* (reproductive tissues) from *Rasa Dhatu* (nutritive fluid). This aimed to synchronize the *Artavavaha srotas* (channels related to menstruation), resulting in the proper stimulation, release, and action of female reproductive hormones. This in turn, affects the HPO (Hypothalamic-Pituitary-

Ovarian) axis and improves overall wellbeing, addressing associated illnesses.

The treatment protocol included *Shamana chikitsa* (palliative therapy), which was revised during subsequent visits based on the patient's condition, and *Shodhana chikitsa* (purification therapy) at specific intervals. During the treatment period, a total of 6 *Basti* sessions and 3 *Nasya* sessions were performed, approximately one month apart, alternating between the two treatments. The brief summary of the management protocol is as follows;

TIME PERIOD	MANAGEMENT	OUTCOME		
			Before	After
April- May 1 ST visit	<i>Deepana- Pachana</i> <i>Shamana a Chikitsa -</i> <i>Vatanulomana</i> <i>Shodhana Chikitsa -</i> 1 sitting of <i>Yog Basti</i> including <i>Anuwasana Basti</i> with <i>Dashmool</i> <i>Taila</i> and <i>Asthapan Basti</i> with <i>Shatpushpadi Kwath</i>	Amenorrhoea	Present	Present
		M/H- LMP	-	-
		Duration	-	-
		Interval	-	-
		Nature	-	-
		Amount	-	-
		Appetite	Reduced	Normal
		Bowel	Constipated	Irregular
Sleep	Disturbed	Disturbed(on/off)		
June- July	<i>Deepana- Pachana</i> <i>Shamana Chikitsa-</i> <i>Vatanulomana</i> <i>Balya</i> <i>Rasayana</i>	Amenorrhoea	Present 6 months	Absent
		M/H- LMP	-	5/07/2023
		Duration	-	3 days
		Interval	-	6 months
		Nature	-	Natural
		Amount	-	3 pad/day
		Appetite	Reduced since 7 days	Normal
		Bowel	Irregular	Regular
Sleep	Disturbed (on/off)	Sound		
August- September	<i>Shamana Chikitsa-</i> <i>Vatanulomana</i> <i>Balya</i> <i>Medohara</i> <i>Shodhana Chikitsa-</i> 1 sitting of <i>Matra Basti</i> with <i>Bala</i> <i>Taila</i>	Amenorrhoea	Present 2 months	Absent
		M/H- LMP	5/07/2023	4/09/2023
		Duration	3 days	3 days
		Interval	6 months	2 months
		Nature	Natural	Natural
		Amount	3 pad/day	2 pad/day
		Appetite	Normal	Normal
		Bowel	Constipated	Regular
Sleep	Sound	Sound		
October- November	<i>Shamana Chikitsa-</i> <i>Vatanulomana</i> <i>Balya</i> <i>Rechaka</i> <i>Shodhana Chikitsa-</i> 2 sittings of <i>matra basti</i> with <i>Dashmool Taila</i> <i>Pratimarsha nasya</i> of <i>Mahanarayan taila</i>	Amenorrhoea	Present 1.5 months	Absent
		M/H- LMP	4/09/2023	10/10/2023
		Duration	3 days	4 days
		Interval	2 months	36 days
		Nature	Natural	Natural
		Amount	2 pad/day	2 pad/day
		Appetite	Normal	Normal

		Bowel Sleep	Regular Sound	Regular Sound
December- January	Shamana chikitsa- <i>Vatanulomana</i> <i>Balya</i> <i>Rasayana</i> Shodhana Chikitsa- 1 sitting of <i>Nasya</i> with <i>Jyotishmati Taila</i> for 7 days	Amenorrhoea M/H- LMP Duration Interval Nature Amount Appetite Bowel Sleep	Present 30/11/2023 4 days 1 month 20 days Natural 2 pad/day Reduced Regular Disturbed	Absent 25/01/2024 5 days 1 month 25 days Natural 2 pad/day Normal Regular Sound
February- March	<i>Deepana- Pachana</i> Shodhana Chikitsa- 1 sitting of <i>Nasya</i> with <i>Mahanarayan taila</i> for 7 days 1 sitting of <i>Matra Basti</i> with <i>Dashmool Taila</i> Shamana a chikitsa- <i>Vatanulomana</i> <i>Balya</i> <i>Rasayana</i>	Amenorrhoea M/H- LMP Duration Interval Nature Amount Appetite Bowel Sleep	Present 25/01/2024 5 days 1 month 25 days Natural 2 pad/day Reduced Regular Sound	Present - - - - - Normal Regular Sound
April- May	Shamana Chikitsa- <i>Vatanulomana</i> <i>Balya</i> <i>Rasayana</i> Shodhana Chikitsa- 1 sitting of <i>Nasya</i> with <i>Mahanarayan taila</i> for 7 days	Amenorrhoea M/H- LMP Duration Interval Nature Amount Appetite Bowel Sleep	Present 01/04/2024 3 days 2 month 6 days Natural 2 pad/day Normal Regular Sound	Absent 07/05/2024 3 days 1 month 6 days Natural 2 pad/day Normal Regular Sound
June- July	Shamana a chikitsa- <i>Vatanulomana</i> <i>Balya</i> Shodhana Chikitsa- 1 sitting of <i>Matra Basti</i> with <i>Dashmool Taila</i>	Amenorrhoea M/H- LMP Duration Interval Nature Amount Appetite Bowel Sleep	Present 07/05/2024 3 days 1 month 6 days Natural 2 pad/day Normal Regular Sound	Absent 11/06/2024 3 days 33 days Natural 2 pad/day Normal Regular Sound

RESULT

PARAMETER	BEFORE TREATMENT	AFTER TREATMENT
AMENORRHOEA	PRESENT	ABSENT
M/H - INTERVAL DURATION NATURE AMOUNT	1 YEAR 3-5 DAYS WITHDRAWAL 3 PAD/ DAY	35- 40 DAYS 3-5 DAYS NATURAL 3-4 PAD/DAY
USG FINDINGS	PCOD PRESENT Rt ovary- 32 × 33 × 18 mm; vol- 10 cc Lt ovary- 34 × 34 × 16 mm; vol- 10 cc Multiple peripherally placed antral follicles	PCOD ABSENT Rt ovary- 20 × 36 mm Lt ovary- 26 × 42 mm
THYROID PROFILE	HYPOTHYROIDISM Total T3- 107.00 nmol/L Total T4- 10.60 µg/dl TSH- 9.27 uIU/mL Thyroxine - 75 mcg	HYPOTHYROIDISM Total T3- 130 nmol/L Total T4- 9.81 µg/dl TSH- 5.049 uIU/mL
APPETITE	REDUCED	NORMAL
BOWEL	CONSTIPATED; INCOMPLETE EVACUATION	REGULAR
SLEEP	DISTURBED	SOUND
WEIGHT	45 KGS	47 KG

The patient came up with the chief complaint of amenorrhoea and withdrawal bleeding but now after the treatment initially menstruation occurred without withdrawal and later on the interval of cycle was regularised. Also the associated complaints of reduced appetite, incomplete evacuation of bowel and disturbed sleep were completely resolved. Changes were observed in the size of ovaries with resolution of cyst and dose alteration for hypothyroidism was done. Thus patient showed significant results after the Ayurvedic management protocol.

DISCUSSION

The present case of 29 years old unmarried female is unique due to its complexity and rare combination. Secondary Amenorrhoea coupled with history of withdrawal bleeding suggests hormonal imbalance affecting her menstrual cycle. Further Hypothyroidism is a condition where thyroid gland does not produce enough hormone which in turn disrupt menstrual regularity, and exacerbate PCOS symptom presenting as irregular menses. Further the unique interplay of these conditions in an unmarried woman adds layer of diagnostic and therapeutic challenge. It requires a comprehensive approach targeting the entire *Artavvaha Strotas* i.e. endocrine and functional reproductive tract.

UTILITY OF DEEPANA- PACHANA

Deepana-Pachana dravyas improve the metabolism and purify the *Aama* (toxins) by *Aama Pachana* resulting in optimal functioning of the *Dhatuagni*, *Jataragni*, *Bhootagni* and hence optimal formation of *dhatu*.

UTILITY OF DHATU POSHANA

Menstrual cycle consists of 2 cycles namely endometrial cycle and the ovarian cycle. Endometrial cycle deals

with regeneration, proliferation, secretion and shedding of endometrium which is related with the *Artava/ Raja* that is shedded every month. The ovarian cycle involves development and maturation of follicle, ovulation and formation of corpus leutum. It can be referred as *Beeja* in Ayurveda which is the *saptam dhatu Shukra* responsible for 'Garbha' i.e. conception⁶. Thus, for a healthy menstrual cycle both the cycles – the endometrial and the ovarian cycle must be coordinated which involves the nourishment of *Artava* as well as the *Sukra dhatu*. The concept of nutrition in Ayurveda is explained as *Khale- Kapota Nyaya*⁷, *Kedari Kulya Nyaya*⁸ where each *dhatu* provide nutrition to its next *dhatu*. Thus *Rasayana*, *Vajikarana*, *Balaya dravyas* enhances and supports the formation of *Rasa and Shukra dhatu*.

Aartava can be considered as *Dhatu* when it governs both the functions of *Dharana* and *Poshana* as evident during pregnancy. In this stage the endometrium gets converted into decidua which participate in the formation of placenta which provide nutritional support to the growing foetus while in absence of fertilisation the secretory changes of endometrium cannot be continued resulting in shedding of endometrium referred as *Bhaya Artava*. In this stage it performs the function of support hence considered as *Updhatu*. Thus, the *Rasyana Dravyas* aims at correction of the depleting *Ras Dhatu* and *Artava Updhatu*.

UTILITY OF SHAMANA CHIKITSA

Ayurveda focuses on relieving symptoms and restoring balance in the body. *Shamana chikitsa* is tailored to individual needs, considering their specific *dosha* imbalances and overall health status. It is revised after a time period according to symptoms.

UTILITY OF SHODHANA CHIKITSA

Nasya Karma

Another important factor governing the menstrual cycle is channelized HPO axis any disruption at any level causes physiological disturbance of the cycle thus treatment motility aimed at correction of coordination is required which is achieved by *Nasya Karma* and coordination of *Vata Dosha*. As evident from classics "*Nasa Hi Shirso Dwarama*"⁹ thus for a medicine to act on the nervous system the shortest and the most preferred route is via nose. The nasal mucosa is rich in nerve endings and blood supply thus medicine stimulates these nerve endings and triggers sensory signals to brain resulting in activation of specific centre in brain namely hypothalamus and pituitary gland.

Basti Karma

Since the physiological mechanism of circulation of the reproductive hormones is carried out by *Vata Dosha*. The various subtute namely *Prana Vata* governs the movements of the upper body, *Samana Vata* stimulates *jatharagni* and hence formation of *dhatu* and *updhatu*. *Apana vata* controls all the secretory activities of the lower body. Any disruption in the circulating *Vata Dosha* leads to physiological incoordination leading to amenorrhoea. Thus, correction of *Vata Dosha* involves *Vatanulomana* which is achieved via *Shamana* and *Shodhana Chikitsa* namely *Basti Karma*.

Basti is referred as '*Ardha Chikitsa*' in classics¹⁰. *Pakwashya* being the prime site of *Vata Dosha* is hence the most preferred route for *Vatanulomana* thus *Basti* becomes the treatment of choice as it involves administration of medicated oils or herbal decoction via anal route into the intestine. Also, intestine lies in close proximity to the pelvic organ thus possess local therapeutic effects.

In the present case, the treatment necessitates the careful channelization of the *Artavavaha Strotas*, which is intrinsically linked to the entire systemic network of the body. Given the complexity of these interconnected systems, a comprehensive and holistic approach is essential. This approach involves addressing all relevant systemic connections to ensure the effectiveness of the treatment. While this may extend the duration of the treatment process, it is expected to yield promising and sustainable results, ultimately contributing to the overall well-being of the patient.

CONCLUSION

By the present single case study, we can evaluate that administration of *Shamana Chikitsa* along with local therapies helped in *Amapachana*, *Agni Deepana*, *Dhatu Poshana* And *Vatanulomana* resulting in regularization of menstrual cycle and improved overall well-being of

the patient. Further clinical studies are needed to validate these findings and refine treatment protocols.

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