CASE REPORT

A CASE REPORT ON AYURVEDIC MANAGEMENT OF SECONDARY AMENORRHEA DUE TO POLYCYSTIC OVARIAN SYNDROME

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Abstract

Secondary amenorrhea is the absence of menstruation for a period of 6 months or longer in a woman with established normal cycles. Polycystic ovarian syndrome (PCOS) is one of the most common causes of pathological secondary amenorrhea. The diagnosis of polycystic ovarian syndrome is based on the presence of any 2 among the criteria: oligo and/or anovulation, hyperandrogenism, and polycystic ovaries. In Ayurveda, it can be considered Nashtartava. Modern management of PCOS is primarily focused on the use of hormonal preparations like oral contraceptive pills and insulin sensitizers like metformin. In cases resistant to medical therapy, laparoscopic ovarian drilling, and ovarian wedge resection surgeries are employed. The usage of contraceptive pills is associated with adverse effects like spotting or breakthrough bleeding (BTB), nausea, headache, breast tenderness, weight gain, mood changes, low libido, and dermatologic problems.

This is a case report of a 24 year old unmarried woman with delayed menstrual cycles, last menstrual period 6 months back and increased facial hair growth, and mood swings for 6 years. On USG, she was diagnosed with PCOS. For this problem, she took allopathic medication twice. Despite having a few subsequent normal cycles, she developed symptoms including mood swings, headaches, excessive sweating, hair loss, and weight gain. She was forced to stop medications due to these problems which are the adverse effects of hormonal medications. She was admitted in In Patient Department treatment was given based on Nashtartava management. Acharya Susruta explains that Nashtartava occurs in females due to Vata kaphaavarana of artavavahasrothas. Samshodhana (purificatory procedure) and Agneya dravyaupayoga (use of drugs with hot potency) are the line of management mentioned in Ayurveda. Purificatory procedures like Vamana, Virechana, and Vasthi were administered with proper care. She attained menstruation shortly after treatment, followed by two more cycles at an interval of 35-37 days. Her issues like mood swings, headaches, and facial hair growth also subsided. This case demonstrates the role of Ayurveda in the management of Nashtartava without any adverse effects.

Introduction

Menstrual cyclicity is an indication of reproductive health in females. Secondary amenorrhea is the absence of menstruation for 6 months or more in a woman for whom normal menstruation has been established ^{[1].} Considering the ovarian factors that cause secondary amenorrhea, Polycystic ovarian syndrome (PCOS) is a common cause. It is characterized by hyperandrogenism, chronic anovulation, and polycystic ovaries. In general population research shows PCOS is the most prevalent endocrine condition of reproductive-aged people. Although the symptoms of androgen excess vary among ethnicities, PCOS appears to affect all races and nationalities equally ^{[2].}

In secondary amenorrhea prognosis depends to some extent on its duration; this usually means the longer the duration the less likely a spontaneous cure ^[3]. There is currently no ideal medical PCOS therapy that fully reverses underlying hormonal disturbances and treats all clinical features ^[4]. Some of the most common treatments used for chronic management of PCOS include hormonal contraceptives, progestins, and metformin ^[5]. Surgical interventions for PCOS include ovarian drilling, ovarian wedge resection, etc. The usage of hormonal medications is often associated with adverse effects. Some women experience side effects such as spotting or breakthrough bleeding (BTB), nausea, headache, breast tenderness, weight gain, mood changes, low libido, and dermatologic problems^[6].

According to Acharya Sushruta, secondary amenorrhoea can be considered as the absence of Artava (Nashtartava)^[7]. The absence ofartava in females (Nashtartava) is due to Avarana of Doshas ,Vata and Kapha according to Ayurveda. The treatment protocol mainly aims to remove the Srotorodha (obstruction in channels) in Artavavaha srotas by Shodhana to maintain the normal functioning of Doshas.

PATIENT INFORMATION

The patient was a 24 year old unmarried female complaining of absence of menstruation for 6 months. She attained menarche at 13 years and had a normal menstrual cycle with an interval of 28 days up to 18 years of age (normal cycle for 6 years). From 18 years of age, she noticed an irregularity in her menstrual cycle with an interval of 3-4 months and her amount of bleeding was 2 pads for the first two days and only blood clots for next 2 days. She also presented with abnormal hair growth and acne on face, blackish discoloration and itching in buttocks region, and increased weight gain. She consulted an allopathic hospital and hormone tablets were prescribed. After the intake of medicines, the menstrual cycle appeared guite normal for 6 months with an interval of 28 days and a duration of 4-5 days with mild abdominal discomfort. So she continued medication for about 6 months. During that

period, she noticed mood swings, profuse sweating, hair fall, and low back ache. Hence she stopped allopathic medicines and her cycles became irregular with an interval of 4-5 months.

After a few months, she consulted an ayurvedic physician and was advised for USG abdomen which revealed multiple small immature follicles in the periphery of both ovaries. With internal medications, her menstrual cycle occurred at an interval of 28 days and with 4-5 days duration for 3 months. When she discontinued medication her cycles became abnormal again with increased intervals. She again consulted an allopathic hospital and took medications. After wards her complaints of acne, hair growth, and mood swings aggravated. So she consulted OPD and took internal medicines for 1 month and was admitted in the IPD for further management.

Haematology (11/1/23)	Lipidprofile(11/1/23)	Hormonalassay (4/1/23)
	Cholesterol-214mg/dl	
Hb : 14.5 gm/dl	Triglyceride-304mg/dl	Serumtestosterone:55
HbA1C: 5.4%	HDL-34 mg/dl	ng/dl
FBS:90 mg/dl	LDL-131 mg/dl	Prolactin:10.87ng/ml
ESR:23 mm/hr	VLDL-49 mg/dl	TSH:2.78μIU/ml
TLC:8410cell/cu		DHEA SO4:283µg/dl
mm		

She was normotensive, non diabetic, and with normal thyroid functions and lipid profile. She has had Myopia for 6 years . Her aunt had similar menstrual irregularities of delayed cycles.

CLINICAL FINDINGS

The patient presented with amenorrhea for 6 months along with mood swings, facial hair growth, blackish discoloration and itching in the buttocks region, acne on the face, and increased weight gain.

She had her last menstrual cycle in March 2022. The average duration of bleeding was 3-4 days with 1-2 moderately soaked pads /day . She experienced mild lower abdominal pain during the initial 2 days of menstrual bleeding.

DIAGNOSTIC ASSESSMENTS

USG PELVIS(01-11-2022)

Uterus-3.9x2.4x8.4 cm, Endometrium, measured 5 mm.

Right Ovary -37 x 26 x 26mm,Volume 13.3cc, Left Ovary measured 43 x 27 x 20 mm, Volume 12.6 cc,

Impression- Polycystic ovaries with peripheral immature follicles are seen.

GENERAL EXAMINATION

Built: Over weight, Height :146 cm, Weight : 62 kg,

BMI: 29.1 kg/m²

Blood Pressure:100/80mm Hg,HeartRate:78 beats/minute, Pulse Rate:76 beats/minute

PELVIC EXAMINATION

Vulva-normal Labia-normal Cystocele-absent

Rectocele-absent

Urethrocele –absent, No abnormal discharge

Blackish - discoloration of groin present

Breast development-normal, Axial and pubic hair pattern-normal

DIAGNOSIS-Nashtarthava

THERAPEUTIC INTERVENTION

In Ayurveda Samhitas, the treatment principle for *Nashtarthava* includes *SrotoShodhana* (to clear obstruction in the *Srotas*), *Vata Anulomana*, and *Kaphahara* treatments along with usage of *Agneya Dravya* (drugs of hot potency)^{[8].}

		OPN	MANAGEMENT	
DATE	C	OMPLAINTS	MEDICINE	REMARKS
7/11/22	Irregular Mood swings	nstruation since 6 months cycles since 6 years , weight gain, facial hair growth in buttocks region	Kalyanakamkashaya ^[9] -90 ml twice daily before food Guduchyadipaanam ^[10] -muhurmuhu Abhayarishta ^[11] +kumaryasava ^[12] -25 ml twice daily before food Tab. Aswagandha 0-0-1 Aragwadadhikashaya ^[13] Avagaha of buttocks	aily Itching in buttock: region reduced
		IP M	ANAGEMENT	•
DATE	COMPLAINTS	MEDICINE	KRIYAKRAMA	REMARKS
7/12/22	Absence of menstruation since 6 months Irregular cycles since 6 years Mood swings, weight gain, facial hair growth Itching and blackish discoloration in buttocks region	Kalyanakaghrita ^[9] -1 tsp twice daily before food Punarnavadi ^[14] + Varanadi ^[15] kashaya-90 m twice daily before food Triphala+Eladi+Haridracho rna ^[16] facial application ond a day in lukewarm water	o l	
9/12/22		Internal medicines repeate	Udwartanam with Varachoornamx7 days Yoga consultation from Swasthavritha department Advised pelvic floor exercise Sooryanamaskara, Konasana, Pranayama	
11/12/22	Rashes on upper chest, right thigh and pubic region associated with itching	Internal medicines repeate Nalpamaraditailam extern application on rashes[17]		Itching reduced
16/12/22			Snehapanam with Kalyanakaghrita+ Saptasaramghritam ^[18] x5days(starting dose -25 ml and ending dose- 60 ml)	
22/12/22			Abhyanga with Dhanwantarataila+Ushmasweda-1day Utkleshana done with milk and urad dal vada	
23/12/22			Vamana with vacha-5gm,yashti-20 gm,madanaphala-10 gm+ madhu +saindhava 4 vega and 2 upavegas	
24/12/22	Gastric irritation		Peyadi kramax3 days	

25/12/22	Gastric irritation persists	Shaddharanamgulika ^[19] -1-0-1 Dasamulajeerakarishta- 25 ml twice a day after food		
26/12/22		Vaiswanarachoorna ^[20] -5g twice a day with hot water Shaddharanam gulika 1-0-1 Pippalyasavam ^[21] +Dasamularishtam-25 ml twice a day after food Tab.Liv-52 2-0-2		
27/12/22			Vicharana snehapana-Saptasaraghrita [18]-5 gm with 1 gm nagara choornam- twice aday x 5 days	
1/1/23			Virechanam with Avipathy choorna- 15gm	
2/1/23			Peyadi kramax2 days	
4/1/23 & 5/1/23			Patient had fatigue and needed rest	
6/1/23			Vaitharanavasthi (Saindhava-7.5gm,guda15 gm, amleekakalka 30 gm, Pippalyadianuvasana taila- 50ml,Dhanyamla-100 ml) x 5 days	
11/1/23		Guduchyadi kashaya-90 ml twice daily before food Abhayarishta + Kumaryasava + (3 cloves of garlic soaked in arishta) 30ml twice daily after food 1 tsp Shatapushpachoorna with ghrita twice daily before food Tab.Liv 52	Discharged	Blackish discoloration in buttocks relieved Mood swings completely relieved Reduction in weight 2.2kg and facial hair growth

Results

The menstrual cycles of the patient became regular. The patient attained menstruation on 14-1-2023, followed by two cycles on 25-2-23 and 13-3-23 with duration of 4-5 days and amount of bleeding 1-2 pads/day. The associated complaints of mood swings, headache, itching and discoloration in the buttocks region were reduced after the course of treatment. The patient also had reduction in weight(2.2kg) and facial hair growth

Discussion

Acharya Susrutha has described Nashtarthava as blockage of Arthavavahasrothas which can be caused by either Kapha or Vatha alone or by Kaphaand Vatha combined. This may be correlated to amenorrhea brought on by PCOS. Samsodhanam, use of Agneya dravyas, use of Swayonivardhakadravyas, and Nidana parivarjanamie. avoidance of etiological factors are the main treatment principles.

Guduchyadikashaya by its kaphahara and agnikrith action may help in amapachana and srotoshodhana. Abhayarishta which has agnivardhana, shophagna, mehagna properties, and Kumaryasava which has agnideepana, udavarthahara properties will be beneficial for amapachana.

Punarnavadikashaya, mentioned in *udararogaprakaranam* is having *sarvangashophahara*, *deepana* action. **Varanadikashaya**, having *katutikta rasa* predominant *ushnateekshnadravyas*that have*deepana*, *chedana*, *srotosodhana* properties help in reducing *sthoulya*and inducing *arthava*.

Kalyanakaghrita contains dravyas which are *sara* and *virechaka* like *danti, haritaki, amlaki* and *deepanadravyas* like *ela, and sariva*. Hence it may help in *srotoshodhana, agnideepana,* and *amapachana*.

The patient also had psychological complaints like mood swings, stress, and headache for which *Kalyanakamkashayam* and ghrita, **tab.** *Ashwagandha* were given as medications. *Kalyanakaghrita* is a time-

tested proven yoga for psychiatric issues in Ayurveda. It is specially indicated for *alparajas*, *bhootagraha* and *unmada*. Hence it may be beneficial in amenorrhea and may help in relieving mood swings and stress issues in this case.

Saptasaraghrita consists of dravyas which are anulomana, arthavajanaka in nature like punarnava, vilwa and kulatha, ushna veerya drugs like shunti, sahachara, and eranda may help in vatanulomana and promoting srotoshodhana

Udwartana is a procedure which is *kaphahara* and helpful in reducing *medas*. It may also provide *rookshana* required prior to *snehapana*. **Vara choornam** is having *tridoshaghna* and *rooksha gunas* which may be beneficial in *sthoulya*.

Vamana karma is considered to best therapy for removing aggravated kapha dosha. It has kaphahara ,srotoshodhana actions which is beneficial in PCOS as there is predominance of kaphavata doshas. Virechana may help in relieving the srotosanga and bringing vatanulomana which is essential in treatment of PCOS. Vaitaranavasti with ingredients saindhava, guda, amlika, taila, gomutra and godugdha help in creating vatanulomana by addressing vata at pakwashaya. By correcting apanavayuvaigunya and agnideepana vaitaranavasti may help in amenorrhea.

Shatapushpachoorna was given after *shodhana* as *rasayana* which has *pithakara*, *kaphavatahara*, *gulmahara*, *shophagna*, *yonishodhana* and *arthavajanana* properties.

The patient also had complaints of itching and blackish discoloration of the skin in the buttocks region. The treatments adopted were *Aragwadadikashayaavagaha* which is Kaphahara, kandughna, dushtavranavisodhana, *Triphala Kashaya kshalana* which is vranahara and ropana in action. *Nalpamaraditailam* with special indication of visarpa and kushta was also used.

Conclusion

Secondary amenorrhea due to PCOS can be correlated with *Nashtartava* in Ayurveda. Hormonal medications and insulin sensitizers are the only therapeutic treatment options available in modern medicine which has many adverse effects like mood swings, headache, weight gain, and dermatological problems. Ayurvedic management can provide excellent results in secondary amenorrhea management with minimum adverse effects. By following proper Ayurveda treatment protocols, menstruation can be induced and regularity of menstruation can be established. Outpatient level management may be sufficient for amenorrhea of short duration, for maintaining cyclicity in chronic cases of secondary amenorrhea, IP treatment that mainly includes *Shodhana* (cleansing therapies) will be beneficial.

PATIENT PERSPECTIVE

The patient shared her perspective in her local (Malayalam) language. Her complaints of mood swings, headache, itching and discoloration in the buttocks region were relieved after the course of treatment. She attained menstruation on 14-1-23, three days after discharge from the hospital followed by two cycles on 25-2-23 and 13-3-23 respectively.

INFORMED CONSENT

Informed consent was taken from the patient for the management and for reporting the case.

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