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 kapha varana 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 amenorrhea can be considered as the absence of Artava (Nashtartava) [7]. The absence of Artava 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 the buttocks region, and increased weight gain. She 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.

<table>
<thead>
<tr>
<th>Haematology (11/1/23)</th>
<th>Lipid profile (11/1/23)</th>
<th>Hormonal assay (4/1/23)</th>
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<tr>
<td>Hb : 14.5 gm/dl</td>
<td>Cholesterol-214mg/dl</td>
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<tr>
<td>HbA1C : 5.4%</td>
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<tr>
<td>FBS:90 mg/dl</td>
<td>HDL-34 mg/dl</td>
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<td>ESR:23 mm/hr</td>
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<td>TLC:8410cell/cu mm</td>
<td>VLDL-49 mg/dl</td>
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<td></td>
<td>Serumtestosterone:55</td>
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<td></td>
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<td></td>
<td>Prolactin:10.87ng/ml</td>
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<td>TSH:2.78μIU/ml</td>
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<td>DHEA SO4:283μg/dl</td>
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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: 100/80 mm Hg, Heart Rate: 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 SratoShodhana (to clear obstruction in the Srotas), Vata Anulomana, and Kaphahara treatments along with usage of Agneya Dravya (drugs of hot potency)[8].

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<th>O P MANAGEMENT</th>
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<tr>
<td><strong>DATE</strong></td>
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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 Vattha alone or by Kaphaand Vattha 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 kaphhara and agnikrith action may help in amapachana and srotoshodhana. Abhayarishta which hasagnivardhana, shophagna, mehagna properties, and Kumaryasava which has agnideepana, udavarthahara properties will be beneficial for amapachana. Punarnavadi kashaya, mentioned in udararogaprakaranam is having sarvangashopahara, deepana action. Varanadikashaya, having katutikta rasa predominant ushnateekshnadrayasthat havedeepeana, chedana, srotosodhana properties help in reducing sthoulya and inducing arthava.

Kalyanakaghrita contains dravyas which are sara and virechhoka 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 alparajos, bhootagroha 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, arthavajonaka 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 tridoshaghnna and rooksha gunas which may be beneficial in sthoulva.

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 aponavayuvaigunya and agnideepana vaitaranavasti may help in amenorrhea.

Shatapushpachoorna was given after shodhana as rasayana which has pithakara, kaphavatahara, gulmohara, shophagna, yonishodhana and arthavajanana ingredients.

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. Naalpamaraditailam 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.

References

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

Kerala Journal of Ayurveda 2(3): 49–54 (2023)


