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Ayurvedic approach of Polycystic ovary syndrome- a case study

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Abstract

Polycystic Ovary Syndrome (PCOS) is a prevalent endocrine disorder characterized by hyperandrogenism, insulin resistance, and hypothalamic-pituitary-gonadal (HPG) axis dysregulation. This multifaceted pathology results in diverse clinical manifestations, including reproductive and metabolic abnormalities, and is associated with psychosomatic challenges. Ayurvedic medicine, which emphasizes a holistic understanding of disease pathology, interprets PCOS as a santarpanajanya vikara (disorder from over-nourishment) with imbalances in kapha dosha and disturbances in rasa and medo dhatus. An in-depth analysis of the pathogenesis and symptomatology of the patient was conducted through Ayurvedic principles, which revealed predominant kapha and vata imbalances, manifesting as metabolic and reproductive irregularities. Existing Ayurvedic literature on related disorders—prameha (Diabetes mellitus), sthoulya (obesity), and vandhya (infertility)—was reviewed to formulate a comprehensive treatment approach. Symptomatic relief obtained in the patient suggests that the Ayurvedic approach, including langhana and srotoshodhana, can alleviate srotorodha (channel obstruction) and regulate vata.

Keywords: *PCOS, case study*

Introduction

Polycystic Ovary Syndrome (PCOS) is a complex endocrine disorder with a global prevalence of approximately between 5% - 15% (1) among women. Its pathogenesis is primarily characterized by hyperandrogenism, insulin resistance, and dysregulation of the hypothalamic-pituitary-gonadal axis. Variability in these core features contributes to the heterogeneous manifestations of PCOS, which range from reproductive and metabolic abnormalities to psychosomatic challenges. Clinically, PCOS is implicated in approximately 40% of anovulatory infertility cases, with symptoms such as hirsutism and acne often leading to diminished body image and psychological distress. The metabolic sequelae of PCOS pose additional health risks, including increased susceptibility to type 2 diabetes mellitus (DM), cardiovascular disease, and certain cancers, notably of the ovary and breast (2).
In Ayurveda, the approach to disease emphasizes understanding pathogenesis rather than disease naming. A detailed analysis of the pathology and symptoms of PCOS suggests it aligns with a santarpanajanya vikara (3) (over-nourishment disorder), characterized by imbalances in kapha and dysregulation of rasa and medo dhatus. These early imbalances result in agni mandya (digestive impairment) and srotorodha (obstruction of bodily channels), contributing to dhatwagni mandya (4) (metabolic dysfunction at the tissue level) and vata pratilomata (vata disturbance). Disturbances in kapha dosha manifest as symptoms

such as body heaviness, decreased appetite, and weight gain, while vata pratilomata may disrupt hormonal balance and cause arthava apravarthi (5) (menstrual irregularity). Although a single Ayurvedic diagnosis does not fully encompass the complex pathology of PCOS, conditions such as prameha (metabolic syndrome), sthoulya (obesity), and Vandhya (6) (infertility) provide valuable frameworks for developing a targeted treatment protocol.

Case Report

A 26-year-old female patient attended the outpatient department (OPD) of Government Ayurveda College, Pariyaram, Kannur, complaining of prolonged intervals between menstrual cycles. Her last menstrual period occurred six months prior. Additional symptoms included darkening of the skin over her neck and hair loss, resulting in frontal balding.

History and Physical Examination

The patient was diagnosed with Polycystic Ovary Syndrome (PCOS) five years ago. Her menstrual cycles had consistently been delayed by 3–6 months, with scanty menstrual flow. She has been married for four years but has not yet conceived. As her husband works abroad, she wished to regularize her menstrual cycles in preparation for potential assisted reproductive procedures. She is 157 cm tall and weighs 70 kg, with a waist circumference of 99 cm. Her vital signs were within normal limits. A transabdominal ultrasound (USG) of the abdomen and pelvis showed multiple small follicles in both ovaries.

Family History
Both her parents have Diabetes Mellitus. She is their only child.

Environmental and Social History
The patient resides in an urban area and is socially active.

Personal History

The patient follows a mixed diet, with a particular preference for sweets, and her daily intake is high in carbohydrates. She reported reduced appetite, regular but hard stools, and no engagement in regular exercise. As a homemaker, she spends most of her day on household tasks and then watching television. She experiences fatigue with minimal physical activity and has no interest in gardening or other hobbies. She sleeps soundly for at least 8–10 hours per night.

Menstrual History

The patient reached menarche at age 12, with menstrual cycles that have consistently been irregular, with intermenstrual intervals of 5–6 months. Her menstrual flow typically lasts 2–3 days and is reduced.

Treatment History

At age 15, the patient consulted a physician and was prescribed medication to induce menstruation, which she continued for 2–3 years. She later consulted a gynecologist, who diagnosed her with PCOS based on

ultrasound findings and laboratory tests, and prescribed medications to induce menstruation. However, she did not adhere consistently to the prescribed treatment.

Rogi Pareeksha (Patient Examination)

The patient was of Kapha-Pitta prakriti (constitution) and exhibited Vishamagni (irregular digestion) and Kroora Koshta (hard bowel). In Vikriti Pareeksha (pathological examination), the primary doshas involved were Kapha (associated with obesity and heaviness) and Vata (showing features of Apana Vaigunya, such as hard stools and irregular or absent menstruation). The affected srotas (body channels) included Rasa (7) (digestive impairment, obesity), Mamsa (increased waist circumference and heaviness), Meda (obesity), Asthi (hair and facial hair abnormalities), and Arthava (delayed menstrual cycles).

Roga Pareeksha

In Roga Pareeksha, the assessment highlights lifestyle and genetic factors contributing to her condition.

Nidana (Causes):

Aharaja (Dietary): Consumption of heavy (guru), oily (snigdha), and sweet (madhura) foods.

Viharaja (Lifestyle): Lack of physical activity (Avyayama).

Beeja Dushti (Genetic predisposition): A family history of diabetes (Prameha in Ayurveda), a Kulaja Vyadhi (8) mainly affecting Medovaha Srotas. This suggests a congenital weakness (Sahaja Vaigunya) may be present in Medovaha Srota.

Samprapthi Ghataka (Pathological Factors):

Dosha: Vata (subtypes: Prana, Vyana, Samana, Apana); Kapha; Pitta (subtypes: Pachaka, Ranjaka)

Dushya: Rasa, Mamsa, Meda, Loma, Arthava

Srota: Rasavaha, Medovaha, Asthivaha, Arthavavaha

Agni (Digestive Fire): Jataragni (Mandagni - weak digestive fire); Dhaatwagni - specifically weak Medo Dhaatwagni (4)

Aama: Present in Koshta and Shakha

Treatment Principle

Srotodushti (Channel impairment): Obstruction (Sanga)

Samprapthi (Pathogenesis): Her inherent weakness in Medovaha Srotas and her lifestyle led to weight gain. Meda's Kapha-related nature caused Kapha Dushti, resulting in Srotorodha (blockage) that ultimately contributed to irregular menstruation.

Laboratory parameters

The lab results showed mildly elevated cholesterol (214 mg/dl) and significantly high triglycerides (304 mg/dl) with low HDL (34 mg/dl), indicating an increased risk of metabolic consequences. LDL was borderline high at 131 mg/dl. Hemoglobin (14.5 gm/dl), HbA1c (5.4%), fasting blood sugar (90 mg/dl), testosterone (55 ng/dl), prolactin (10.87 ng/ml), ESR (23 mm/hr), and TSH (2.78 µIU/ml) were within normal limits.

Treatment protocol

Since the primary doshas involved are Kapha and Vata, and the condition is Santarpana Janya (caused by overnutrition), the treatment primarily focuses on Langhana (lightening therapy). Given that the increase in Vata is due to Avarana (obstruction), moderate Langhana also helps alleviate it.

Phase 1: Deepana and Pachana therapies are used initially to stimulate digestion, improve metabolism, balance hormones, and reduce accumulated Kapha and Ama (toxins).

Phase 2: Once Agni Deepti (enhanced digestive fire) is achieved, treatments focus on Kapha-Medohara (reducing Kapha and excess fat tissue).

Phase 3: The final phase included *Vata Anulomana* (regulating Vata flow) to support overall dosha balance and improve bodily functions, specifically aiding *Arthava Pravarthi* (menstrual flow).

OP-based treatment was given for two months and the drugs of choice were as shown in Table:1

Table:1 Treatment protocol for 2 months

SL NO.	MEDICINE	DOSAGE & TIME OF ADMINISTRATION
Deepana Pachana		
1	Gandharvahastadi kasaya	75ml 6am and 6pm
2	Trikatu churna	10gm twice daily with kasaya
Kapha – medo hara		
1	Varanadi kasaya	75ml 6am and 6pm
2	Kanchanara guggulu	1 – 0 – 1
3	Brisk walk	½ hr each morning and evening
Vatanulomana		
1	Chiruvilwadi kasaya	75ml 6am and 6pm
2	Dhanwantaram tab	2 – 0 – 2

3	Brisk walk	½ hr each morning and evening

Along with internal medication and exercise, the patient was advised to modify her diet to include foods low in fat and carbohydrates and high in fiber.

Changes in symptoms before and after two months of OP treatment and lifestyle modification.

At baseline

Weight – 70 kg

Waist circumference – 99 cm

BMI - 28.4, falls into the overweight category

Menstrual cycle – irregular, LMP – 6 months back

Skin – acanthosis present, not extensive

After OP treatment for 2 months

Weight Reduction: She lost 4 kg over two months, which reduced her BMI helping with metabolic function.

Waist Circumference: With weight reduction, a decrease of 5 cm in waist circumference was achieved. This reduction lessened central obesity and associated metabolic risks.

Acanthosis Nigricans: Some lightening in the affected skin was observed. Acanthosis often improves gradually; weight loss and metabolic balance can reduce its severity over time as insulin sensitivity improves.

Menstrual cycles: Addressing *Vata Anulomana* and reducing *Kapha* through *Langhana* appears to have helped regulate hormones and encouraged the return of menstrual cycles, as she experienced her period two months after starting treatment. However, the bleeding was scanty, suggesting that a longer treatment period may be needed to restore hormonal balance and fully improve menstrual flow.

Discussion:

This study explores the Ayurvedic conceptualization of Polycystic Ovary Syndrome (PCOS), though PCOS is not directly described in Ayurvedic texts, it is considered a santarppanotha vyadhi primarily affecting rasavaha and medovaha srotas. An Ayurvedic intervention centered on langhana treatment (reductive therapy) seeks to pacify these imbalances while alleviating insulin resistance, aligning with modern perspectives on metabolic health.

The pathology of arthavavaha srotodushti in PCOS may be understood as secondary to rasadushti, given that arthava is regarded as an upadhatu of rasa. Additionally, vata pratilomata contributes to arthava apravarthi (amenorrhea), warranting therapeutic measures directed towards Apatarppana and Anulomana therapy.

Langhana therapy, with its inherent srotoshodhana (channel-purifying) qualities, was implemented to remove obstructive factors in srotas (body channels). The rise in vata within PCOS was attributed to srotorodha (obstruction within channels), which langhana addresses by relieving this obstruction. After langhana, further efforts targeted the normalization of vata, the predominant dosha implicated in yoni vyapad (gynecological disorders) including Vandhya (infertility).

Results

Treatment outcomes showed substantial improvements in clinical parameters. The patient experienced reductions in weight, BMI, and waist circumference, alongside improvements in agni bala (digestive strength) and normalization of menstrual cycles. Normalizing vata not only supported agni (digestive fire) and koshta (gut function) but also promoted regular functionality of arthavavaha srotas essential for reproductive health. These findings suggest that Ayurvedic principles, particularly those addressing vata anulomana (vata regulation) and srotoshodhana, offer complementary approaches to managing PCOS.

Conclusion

The implemented Ayurvedic treatment regimen demonstrates efficacy in addressing metabolic and reproductive symptoms of PCOS, highlighting the potential for integrative care that aligns traditional Ayurvedic and modern biomedical understandings. Further research is warranted to explore these interventions in broader populations.

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