

A Clinical Evaluation of Panchakarma Therapy in the Management of Polycystic Ovarian Syndrome (PCOS): A Single Case Study

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ABSTRACT

Polycystic Ovarian Syndrome (PCOS) is a multifactorial endocrine and metabolic disorder characterized by anovulation, hyperandrogenism, and polycystic ovarian morphology. The contemporary biomedical approach primarily focuses on symptomatic hormonal regulation, whereas Ayurveda emphasizes correction of the underlying pathology through Dosha balance, Agni restoration, and Srotoshodhana. The present case study evaluates the efficacy of Panchakarma therapy in a patient diagnosed with PCOS at the Stree Roga OPD of SST Ayurved College, Sangamner. The intervention demonstrated significant improvement in menstrual regularity, clinical symptoms, and ultrasonographic findings. The study highlights Panchakarma as a multi-dimensional therapeutic modality acting at metabolic, endocrine, and reproductive levels.

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Introduction

Polycystic Ovarian Syndrome has emerged as one of the most prevalent endocrine disorders among women of reproductive age, largely influenced by sedentary lifestyle, dietary patterns, and stress. It manifests as menstrual irregularities, infertility, obesity, acne, and hirsutism, and is frequently associated with long-term metabolic complications such as insulin resistance and type 2 diabetes mellitus.¹

Modern management strategies, including oral contraceptives and insulin-sensitizing agents, offer symptomatic relief but are often associated with recurrence² and adverse effects. Ayurveda, on the other hand, provides a holistic framework that addresses the root cause of disease. The concepts of Dosha imbalance, impaired Agni, and Srotorodha³ offer a comprehensive understanding of systemic disorders like PCOS. Panchakarma, being the principal detoxification therapy, plays a vital role in eliminating vitiated Doshas and restoring physiological equilibrium.⁴

Understanding PCOS: Modern Perspective

From a biomedical standpoint, PCOS is defined as a heterogeneous endocrine disorder diagnosed based on the presence of Oligomenorrhea, hyperandrogenism, and polycystic ovarian morphology.⁵ The central mechanism involves insulin resistance, which leads to compensatory hyperinsulinemia. This condition stimulates ovarian androgen production, resulting in follicular arrest and cyst formation.¹

Disturbances in the hypothalamic–pituitary–ovarian axis further contribute to an increased luteinizing hormone to follicle-stimulating hormone ratio, impairing ovulation.⁶ Chronic inflammation and oxidative stress also play significant roles, making PCOS a complex metabolic–endocrine disorder.⁷

Understanding PCOS: Ayurvedic Perspective

In Ayurveda, PCOS is understood through conditions such as Artava Kshaya and Pushpaghni Jatharini.⁸ The pathogenesis begins with Agnimandya, leading to the formation of Ama. This Ama causes obstruction in Artavavaha Srotas, impairing the normal function of reproductive tissues.³

Kapha Dosha contributes to structural abnormalities

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such as cyst formation and Meda Dhatu accumulation, while Vata Dosha, particularly Apana Vata, is responsible for functional disturbances like irregular menstruation and anovulation. Thus, PCOS is conceptualized as a disorder involving metabolic impairment, channel obstruction, and reproductive dysfunction.⁹

Case Study

Patient Details:

Age: 23 years
OPD: Stree Roga, SST Ayurved College, Sangamner

Chief Complaints:

Irregular menstruation for 2 years
Weight gain
Acne and hirsutism

Menstrual History:

Cycle interval: 45–60 days
Flow: Scanty
Duration: 2–3 days

Examination Findings:

BMI: 28 kg/m²
Mild hirsutism and acne

Investigations:

Ultrasonography revealed bilateral polycystic ovaries

Diagnosis:

Artava Kshaya with Kapha-Vata Dushti and Meda Vriddhi

Treatment and Intervention

The treatment protocol was planned systematically according to classical Ayurvedic principles, beginning with Agni correction, followed by Dosha elimination and restoration of reproductive function.

| | | | | |
|----------------|------------|--|------------|------------------|
| Pradhana karma | Virechana | Trivrit Lehya | 1 day | Detoxification |
| | Yoga Basti | Anuvasana + Niruha | 8 days | Vata regulation |
| | Uttarbasti | Phala Ghrita | 3 sittings | Uterine action |
| Paschatkarma | Shamana | Kanchanar Guggulu, Rajapravartini Vati | 3 months | Hormonal balance |

Mode of Action

The therapeutic action of Panchakarma in PCOS can be understood as a multi-level intervention targeting both the root cause and clinical manifestations of the disease.³ From an Ayurvedic perspective, Deepana-Pachana enhances Agni, thereby preventing further formation of Ama.⁴ The removal of Ama results in Srotoshodhana, particularly in Artavavaha Srotas, allowing proper nourishment and function of reproductive tissues. Virechana eliminates vitiated Pitta and Kapha Doshas, thereby correcting metabolic disturbances and reducing cyst formation.¹⁰ Basti therapy normalizes Apana Vata, which governs ovulation and menstruation, thus restoring cyclical reproductive function. Uttarbasti acts locally on the uterus and ovaries, improving endometrial receptivity and follicular development.¹¹

From a modern scientific perspective, Panchakarma improves insulin sensitivity, thereby reducing hyperinsulinemia and androgen excess. It enhances hepatic metabolism, leading to improved hormonal regulation. The therapy also modulates the hypothalamic–pituitary–ovarian axis and reduces systemic inflammation. Improved circulation and metabolic efficiency contribute to normalization of ovarian function and restoration of ovulation.

Results

Following three months of treatment, the patient showed significant clinical improvement. Menstrual cycles became regular with normal flow. Acne and hirsutism were reduced, and weight loss was observed. Ultrasonographic findings demonstrated reduction in ovarian cysts, indicating improvement in ovarian morphology.

Table: Clinical Outcome

Table No. 1: Treatment Protocol

| Phase | Intervention | Details | Duration | Purpose |
|-------------|-----------------|--------------------------|----------|--------------------|
| Purvakar ma | Deepana-Pachana | Trikatu, Chitrakadi Vati | 5–7 days | Improve Agni |
| | Snehapana | Medicated Ghrita | 3–5 days | Internal oleation |
| | Swedana | Steam therapy | Daily | Dosha mobilization |

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| Parameter | Before Treatment | After Treatment |
|-----------|------------------|-----------------|
| Cycle | 45–60 days | 30–32 days |
| Flow | Scanty | Normal |
| BMI | 28 | 25 |
| Acne | Moderate | Mild |
| USG | PCOS | Improved |

Discussion

PCOS represents a complex interaction between metabolic and reproductive dysfunction. While modern medicine explains it primarily through insulin resistance and hormonal imbalance, Ayurveda interprets it through Agnimandya, Ama, and Dosha Dushti. Both perspectives ultimately converge on systemic metabolic dysfunction.³

Panchakarma therapy provides a comprehensive approach by addressing these underlying factors. It not only improves metabolic efficiency but also restores hormonal balance and reproductive health. The ability of Panchakarma to act at both systemic and local levels makes it a highly effective therapeutic modality in PCOS management.⁴

Conclusion

The present case study demonstrates that Panchakarma therapy is effective in the management of PCOS by addressing its root pathology. It works through metabolic correction, elimination of Dosha imbalance, and restoration of normal reproductive function. Ayurveda thus offers a holistic and sustainable approach to PCOS management, with significant potential for integration into modern healthcare systems.

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