

AYURVEDA AND PCOS: ANCIENT WISDOM FOR MODERN CHALLENGES**Mansi Joshi^{1*} and Prabha Kumari²**

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ABSTRACT

Polycystic Ovarian Syndrome (PCOS) is a heterogeneous endocrine disorder and one of the most prevalent and rapidly increasing health concerns among women of reproductive age group. It is characterized by a combination of hyperandrogenism (clinical or biochemical), oligomenorrhea or anovulation, and polycystic ovaries. PCOS is frequently associated with insulin resistance and obesity, making it a systemic endocrine and metabolic disorder. Women with PCOS have a history of irregular menstrual cycles, acne, hirsutism, obesity, and acanthosis nigricans. In Ayurveda, while an exact equivalent of PCOS is not described, it bears similarities to conditions like *Yoni Vyapad*, *Puspghani Jataharini*, *Nashtartava*, *Artava Kshaya* and *Aartavadushti*. Although the exact etiology of PCOS is unclear, it is associated with hormonal imbalances, insulin resistance leading to hyperinsulinemia, and genetic predisposition. Sedentary lifestyle, unhealthy diet, lack of physical activity, and stress further aggravates the condition. Ayurveda

provides a holistic approach in managing PCOS by integrating *Dincharya*, lifestyle modifications, and Ayurvedic principles like *Samshodhana*, and the use of *Aaganeya* and *Artavajanan Dravyas*. This article aims to explore the Ayurvedic perspective of PCOS, offering a holistic approach to understanding and managing this condition by addressing the root causes and restoring balance to the body.

KEYWORDS: PCOS, Ayurveda, *Yoni Vyapad*, *Dincharya*, *Aartavadushti*.

INTRODUCTION

Polycystic Ovary Syndrome (PCOS) is a complex disorder affecting the endocrine, metabolic, reproductive, and dermatological systems in women, making it the leading cause of anovulatory infertility. Its poorly understood etiopathogenesis significantly contributes to the challenges associated with this prevalent health issue. PCOS is the most prevalent health concern among women of reproductive age. The prevalence of Polycystic Ovary Syndrome (PCOS) is approximately 6–10% among women of reproductive age group.^[1]

The condition was first described by Stein and Leventhal in 1935, who identified an association between enlarged ovaries, amenorrhea, infertility, hirsutism, and obesity. Consequently, it is also referred to as "Stein-Leventhal syndrome." The term "polycystic ovary syndrome" is derived from the common ultrasound finding of multiple ovarian cysts. These cysts represent immature follicles arrested at an early antral stage due to disrupted ovarian function. They are often distributed either centrally or along the ovarian periphery, forming a "string of pearls" appearance on ultrasound.^[2] PCOS is characterized by the presence of enlarged ovaries with multiple small cysts (2-9 mm) and a hyper vascularized, androgen-secreting stroma, which contributes to androgen excess, obesity, and menstrual irregularities.

Although PCOS is not mentioned in Ayurveda, it may be correlated with *Artava Kshaya*, *Yoni Vyapad* (*Arajska*, *Lohitakshaya*), *Artava Dushti* (specifically *Vata-Kaphaja Artava Dushti* (*VKAD*) or *Granthibhuta Artava Dushti*), associated with *Rasa Dhatu Dushti*.

AIMS AND OBJECTIVES

To explore and understand the pathology of polycystic ovarian syndrome (PCOS) from an Ayurvedic perspective.

MATERIALS AND METHODS

Ayurvedic Samhita, Ayurvedic Textbooks.

Causes

In today's society, changes in lifestyle have led to modifications in diet (*ahara*) and daily activities (*viharas*), contributing to a range of lifestyle-related diseases, including obesity, depression, chronic back pain, diabetes, and hypertension. Factors such as skipping meals and choosing junk food due to work-related stress, deadlines, and pressure, as well as a sedentary

lifestyle, insufficient exercise, overeating, poor food quality, and daytime sleep, all play significant roles in this shift. These factors lead to *Kapha Prakopa* while mental conditions such as sadness, stress, and excessive thoughts lead to *Vata Prakopa*. Eating before the previous meal is digested further aggravates *Vata*. The imbalance in doshas disrupts *Agni*, which in turn affects the proper metabolism of *Dhatus*, *Malas*, and *Srotas*.

Aetiopathogenesis of PCOS

The exact cause of PCOS remains unclear, with debates over whether it is a primary ovarian disorder or secondary to hypothalamic-pituitary dysfunction. Key contributing factors include:

1. Dysregulation of the Hypothalamo-Pituitary-Ovarian Axis

Abnormal gonadotropin-releasing hormone (GnRH) activity leads to increased luteinizing hormone (LH) secretion and decreased follicle-stimulating hormone (FSH), disrupting follicle maturation and causing an elevated LH: FSH ratio.

2. Insulin Resistance and Hyperinsulinemia

Dysfunction in insulin receptors leads to insulin resistance, causing hyperinsulinemia. This reduces sex hormone-binding globulin (SHBG), increases free testosterone levels, and stimulates androgen production, worsening PCOS symptoms.

3. Adrenal and Ovarian hyperandrogenemia

Elevated androgens result from increased ovarian and adrenal activity, often due to insulin resistance, LH hypersecretion, and decreased SHBG.

4. Disordered folliculogenesis

Follicular growth arrests at the antral phase due to relative FSH deficiency, abnormal LH stimulation, and excessive anti-Müllerian hormone (AMH), leading to the accumulation of immature follicles.

5. Obesity

Obesity exacerbates insulin resistance and hormonal imbalances, contributing to PCOS pathophysiology.

6. Stress

Stress disrupts homeostasis and influences the hypothalamic-pituitary-ovarian axis, contributing to hormonal imbalances, insulin resistance, and menstrual irregularities.

7. Environmental factors

Sedentary lifestyles, excessive junk food consumption, and exposure to harmful chemicals or additives worsen insulin resistance and hormonal imbalances, further contributing to PCOS.

Signs and Symptoms of pcos^[3]

PCOS commonly presents with menstrual irregularities, ranging from oligomenorrhea to amenorrhea. Women with PCOS often report infrequent menstrual cycles, typically around three to six cycles per year. This irregularity increases the risk of endometrial hyperplasia and endometrial cancer. Severe acne, particularly in teenagers, is a common manifestation of PCOS. Approximately 50% of PCOS patients are obese, increasing their risk of developing diabetes mellitus and cardiovascular diseases later in life. Insulin Resistance and Hyperinsulinemia are key biochemical features of PCOS, leading to various metabolic complications.

According to Ayurveda, *Jatharagni* plays a vital role in digestion and the production of *Ahara Rasa*, which nourishes all *Dhatus*. Each dhatu has its own *Dhatwagni*, which regulates tissue-level metabolism. Consumption of junk and fatty foods aggravates *Vata* and *Kapha Dosha*, leading to *Agnimandya*. This hampers the function of *Pachakagni*, resulting in the improper formation of *Ahara Rasa*, which fails to nourish the further dhatus adequately.

Samprapti ghataka

Doshas - Kapha, Vata & Pitta

Dushya- Rasa, Rakta

Upadhatu- Artava

Agni-Jataragni, Dhatavagni

Srotas - Rasa-Medo-Artava

Sroto Dusti - Granthi & Sanga }

Samprapti

Sedentary lifestyle & Kaphaprakopaka Ahara Vihara → Agnimandhya → Amotpattii → Srotorodha → Dhatvagnimandhya → Apachita Rasadhatu → Uttorottara Dhatu Apachana → Medodusthi and Alpartava (PCOS) like Lakshanas are seen.

Diagnostic criteria for pcos^[4]**Rotterdam Criteria for PCOS**

The diagnosis is confirmed if at least two out of three of the following are present:

1. **Oligo/anovulation** (Infrequent or absent ovulation).
2. **Hyperandrogenism** (Clinical signs like hirsutism, acne, or biochemical evidence of elevated androgens).
3. **Polycystic Ovaries** (As identified by ultrasound: either 12 or more follicles in each ovary or increased ovarian volume >10 cm³).

Investigations

- History including family history
- Physical examination
- Hormonal Essay- LH: FSH, E2, Testosterone, SHBG, Prolactin, TSH, T3, T4 & Fasting Insulin level.
- Total Cholesterol.
- USG for the ovarian features of polycystic ovaries.

Differential diagnosis of pcos

- Thyroid dysfunction
- Congenital Adrenal Hyperplasia (21-hydroxylase deficiency)
- Cushing's Syndrome
- Hyperprolactinemia
- Pituitary or Adrenal Disorders

Treatment

The Ayurvedic approach to managing Polycystic Ovary Syndrome (PCOS) focuses on addressing the root cause of the condition through personalized treatments, lifestyle modifications, and dietary adjustments. In Ayurveda, the treatment of PCOS revolves around balancing the *Doshas* (Vata, Pitta, Kapha), addressing *Dhatu* and *Upadhatu* imbalances and adopting holistic interventions involving *Aahara*, *Vihar*, herbal medications and *Panchakarma* therapies.

Ayurveda identifies PCOS as a manifestation of *Tridosha* imbalance

1. Vata dosha: Causes irregular menstruation, Pain and Dryness.

2. Pitta dosha: Leads to acne, hirsutism, hormonal imbalances, cardiovascular Risks and Even carcinomas in severe cases.
3. Kapha dosha: Results in weight gain, cyst formation, Lethargy and Depressive symptoms.

Ayurvedic management

1. Nidaan parivarjan (Avoidance of causative factors)

Avoiding foods and habits that aggravate *Doshas*. Adopting a wholesome diet and disciplined lifestyle to prevent exacerbation of symptoms.

2. Aama chikitsa^[5]

Deepana and Pachana medications, such as Chitrakadi Vati, should be administered. Snehana, Swedana, and then Sodhana should be performed, depending upon the bala of the patient.

3. Aahara (Diet)

Emphasis on a diet specific to the individual's *Prakriti* and *Dosha* imbalance. A low glycemic index (GI) diet is highly recommended to manage insulin resistance. Avoiding junk food is important in managing PCOS.

4. Vihara (Lifestyle modifications)

Incorporation of yoga, *Pranayama*, and relaxation techniques to reduce stress and improve ovarian blood flow.

5. Herbal medications

- **Shatavari:** Regulates menstrual cycles and improves blood flow.^[6]
- **Ashwagandha:** Reduces stress and hormonal imbalances.^[7]
- **Ashoka:** Hormonal balance, acne reduction, and hirsutism management.^[8]
- **Manjishta:** Help purify blood, reduce inflammation, balance the kapha & pitta dosha.^[9]

6. Panchakarma therapies

Panchakarma Therapies like *Vamana* and *Virechana* clear metabolic waste (*Ama*), boost metabolism, and balance *Agni* (Digestive fire). According to Acharya Sushruta, *Kshaya Samshodhana* should be performed in cases of Artava (Menstrual issues), followed by the use of *Aagneya Dravya*. However, Acharya Dalhana advises that only *Vamana Karma* should be used for purification, as *Virechana Karma* reduces Pitta, which in turn lowers the *Agni*, leading to Artava Kshaya.^[10] On the other hand, *Vamana Karma* helps remove *Saumaya*

(Kapha), which boosts the body's Agni, thus improving *Artava*. Acharya Chakrapani mentions that both *Vamana* and *Virechana* are beneficial, as *Vamana* clears the upper channels, while *Virechana* purges the lower channels. In obese women with PCOS, *Vamana* aids in boosting metabolism, reducing weight, and improving androgen balance, glucose levels, and ovulation, thereby enhancing fertility and increasing the chances of conception.^[11]

Uttara Basti, *Anuvasana Basti*, *Asthapana Basti* etc using medicated oils and kwatha is specifically beneficial for gynecological health.

7. Herbal formulations

Classical Ayurvedic remedies like *Kanchnaar Guggulu*, *Chandraprabha Vati*, *Arogyavardhini Vati*, *Shatavari ghrit*, *Varunadikshaya*, *Pushpdhanwa Ras* and *Yograj Guggulu*.

DISCUSSION

Ayurvedic literature emphasizes four key elements for conception, each of which plays a crucial role in ensuring successful pregnancy outcomes. These elements are:

1. *Rutu* - The right time for conception, which refers to the ovulation period.
2. *Kshetra* - The field, referring to the entire reproductive tract.
3. *Ambu* - A balanced and nourishing diet.
4. *Beeja*- Ovum, menstrual blood, hormones.

Among these, *Artava* holds the most significance, as the normal functioning of the other three components depends on the healthy functioning of *Artava*. *Artava* is divided into two forms in Ayurveda: *Antaha Pushpa*, which represents hormones and the ovum, and *Bahya Pushpa*, which refers to menstrual blood. The health and functioning of *Antaha Pushpa* can be predicted through the characteristics of *Bahya Pushpa* and the *Rutuchakra* (the menstrual cycle). When *Antaha Pushpa* (hormones) is functioning properly, *Bahya Pushpa* (menstrual blood) should exhibit features of *Shudha Artava* (pure menstrual blood), provided there are no anatomical abnormalities in the reproductive tract.

PCOS is viewed through the lens of Ayurvedic principles, particularly by studying its etiology and pathophysiology, alongside its symptoms. When observing the signs and symptoms of PCOS, they correspond to an imbalance in the three doshas—*Vata*, *Pitta*, and *Kapha*—with a predominant vitiation of *Kapha* and *Vata*. This imbalance leads to a *Tridoshaja Vikara*, contributing to the symptoms of PCOS, which is a complex endocrine

disorder. This condition is associated with obesity, hirsutism, and recurrent anovulation, making it one of the leading causes of infertility and irregular periods.

While PCOS is not directly tied to a single disease entity in Ayurveda, its symptoms resemble various conditions, such as *Pushpaghni Jatiharini*, *Shandi Yoni Vyapad*, *Charak's Bandhya*, *Sushruta's Bandhya Yonivyapad*. These names reflect different aspects of female reproductive health and disorders in Ayurvedic texts.

The prevention and management of PCOS can be effectively achieved through adherence to *Dincharya*, *Ritucharya* and a balanced approach to *Pathya Aahar*, *Vihar* and *Aushadha*. Such a holistic approach can minimize the risk of developing PCOS and contribute to better reproductive health.

CONCLUSION

Polycystic Ovary Syndrome (PCOS) is a complex condition often linked to obesity, particularly upper body obesity, caused by sedentary lifestyles, poor diets, and stress. Obesity disrupts hormonal balance, leading to irregular menstrual flow. Currently, there is no definitive medical cure for PCOS that fully addresses the hormonal imbalances or treats all the symptoms associated with it. While allopathic treatments like oral contraceptives and insulin-sensitizing drugs manage symptoms, they often have side effects and limitations. Surgical options, though effective, are costly. Ayurvedic management of PCOS offers a significant advantage in terms of cost-effectiveness and the absence of side effects. The focus of Ayurveda is on treating the root cause of the condition through holistic approaches, which includes weight reduction, lifestyle modification, and dietary improvements. For obese women, reducing weight and correcting lifestyle habits are crucial components of PCOS treatment. This holistic, cost-effective approach offers a safer and more accessible alternative for managing and potentially reversing PCOS symptoms.

REFERENCES

1. Malhotra N, Jeffcoate's Principles of gynecology, Ninth international edition, Jaypee Publications, 2009.
2. Lee TT, Rausch ME Polycystic ovarian syndrome: role of imaging in diagnosis. Radiographics, 2012; 32: 1643-1657.
3. Aili S Role of yogasana in prevention of Polycystic Ovarian syndrome Journal of Ayurveda and integrated medical sciences, 2004; 91: 2.

4. Hayek S Polycystic Ovarian Syndrome: An updated Overview, *Front physiol*, 2016; 7: 124.
5. Bhavaprakasa of Bhavamisra, commentary by Dr.B.Sitaram, *Chaukhambha Orientalia*, Varanasi, 2006; I: 287.
6. Sharma S, Role of Ayurveda on PCOS (Polycystic Ovary Syndrome): A Critical Review, 2021; 3: 2.
7. Sharma S, Role of Ayurveda on PCOS (Polycystic Ovary Syndrome): A Critical Review, 2021; 3: 2.
8. Sharma S, Role of Ayurveda on PCOS (Polycystic Ovary Syndrome): A Critical Review, 2021; 3: 2.
9. Dayani SSA. Clinical efficacy of Ayurveda treatment regimen on Subfertility with Polycystic Ovarian Syndrome (PCOS). *Ayu*, 2010; 31(1): 24–27.
10. Sushruta, Kaviraj Ambikadattashastri, *Sushruta Samhita with Ayurved tattva Sandipanahindi commentary, sutrasthana*, Varanasi, Chaukumba publications, reprint edition, 2014; 78: 15-16.
11. Bhingardive KB, Sarvade DD, Bhatted S. Clinical efficacy of Vamana Karma with Ikshwaaku Beeja Yoga followed by Shatapushpadi Ghanavati in the management of Artava Kshaya. *s. r to polycystic ovarian syndrome. Ayu*, 2017; 127–132.