



Polycystic Ovarian Syndrome - Its Ayurvedic Correlations and Management

Singh S^{1*}, Kavya GM² and Sharma KK³

¹PG Scholar, Department of Panchakarma, Rishikul Campus, Uttarakhand Ayurveda University, India

²Professor and Head, Department of Prasuti Tantra and Stri Roga, Gurukul Campus, Uttarakhand Ayurveda University, India

³Professor and Head, Department of Panchakarma, Rishikul Campus, Haridwar, Uttarakhand Ayurveda University, India

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***Corresponding author:** Shivangi Singh, PG Scholar, Department of Panchakarma, Rishikul Campus, Uttarakhand Ayurveda University, India, Tel: +916397313366; Email: shivi.singh.2331@gmail.com

Abstract

Polycystic ovarian syndrome is a systemic metabolic and endocrine disorder. The main causes of oligo/amenorrhea, hirsutism, obesity, and enlarged ovaries with numerous tiny cysts and thick tunica, which results in anovulation, are hyperinsulinemia and hyperandrogenemia. A few disorders in the Yoni Vyapad, Artava Dushti and Jatiharini group in Ayurveda resemble this entity in some ways, but Pushpaghni Jatiharini as described by Acharya Kashyap has a striking resemblance. According to Ayurveda, PCOS can be managed with Samshodhana Chikitsa and lifestyle modification. It can be prevented by adhering to Dincharya and Ritucharya, using Pathya Aahara, Vihara, and Aushadha, as well as by avoiding Apathya Aahara, Vihara, Prajnaparadha, Mandagni, and overindulging in sweets. And other etiological elements like Kaphavardhaka Aahar, absence of love and others. Therefore, lowering Kapha, adjusting insulin, eliminating obstructions, and using Aushadha, Aahara and Vihara can aid in the prevention and treatment of PCOS.

Keywords: Polycystic Ovarian Syndrome; Yoni Vyapad; Artava Dushti; Jatiharini; Dincharya; Ritucharya

Introduction

Polycystic ovarian syndrome (PCOS) is a hormonal disorder causing enlarged ovaries with small cysts on the outer edge. The disorder can be morphological (polycystic ovaries) or predominantly biochemical (hyperandrogenemia). Hyperandrogenism, a clinical hallmark of PCOS, can cause inhibition of follicular development, microcysts in the ovaries, anovulation, and menstrual changes [1].

Prevalence of PCOS is highly variable ranging from 2.2%

to 26% globally [2]. The rates of polycystic ovarian syndrome have been reportedly high among Indian women compared to their Caucasian counterparts [3], with an estimated prevalence of 9.13% in Indian adolescents [4,5]. Polycystic ovarian syndrome affects at least 20% of young women. However, one out of three have symptoms that match the diagnosis of PCOS i.e. infertility, menstrual irregularity and hirsutism.

PCOS can be described as an oligogenic disorder in which the interaction of a number of genetic and

environmental factors determines the heterogeneous, clinical, and biochemical phenotype. Although the genetic aetiology of PCOS remains unknown, a family history of PCOS is relatively common; however, familial links to PCOS are unclear. Environmental factors implicated in PCOS (e.g., obesity) can be exacerbated by poor dietary choices and physical inactivity; infectious agents and toxins may also play a role [6].

Exact pathophysiology of PCOS is not clearly understood but it can be discussed under the following headings- [7]

- Hypothalamic – pituitary compartment abnormality.
- Androgen excess and Anovulation.

- Obesity and insulin resistance.
- Long – term consequences

Clinical signs of PCOS include elevated luteinizing hormone (LH) and gonadotropin-releasing hormone (GnRH) levels, whereas follicular-stimulating hormone (FSH) levels are muted or unchanged. As a result of the increase in GnRH, stimulation of the ovarian thecal cells, in turn, produces more androgens [8]. Symptoms include Obesity (abdominal-50%), Menstrual Abnormalities (Oligomenorrhoea, Amenorrhoea, DUB) and infertility-70%, Hirsutism and Acne – 70%, Virilism – rare, Acanthosis nigricans - due to insulin resistance [1] (Table 1).

NICHD/NIH Criteria (1990)	ESHRE/ASRM Rotterdam Criteria (2003)	Androgen Excess Society (AES) Criteria (2006)
Hyperandrogenism	Hyperandrogenism	Hyperandrogenism
Oligo- ovulation/anovulation	Oligo-ovulation/anovulation	Oligo-ovulation/anovulation
Exclusion of other related disorders	Polycystic ovaries	Polycystic ovaries
		Exclusion of other related disorders

Table 1: Three tools can be used to diagnose PCOS.

Risk factors are- Diabetes mellitus (15%), Endometrial Carcinoma, Hypertension and cardiovascular disease, obstructive sleep apnoea [7]. Differential Diagnosis- Cushing Syndrome, Androgen producing tumour of the adrenal gland or ovary, congenital adrenal hyperplasia.

Because the primary cause of PCOS is unknown, treatment is directed at the symptoms. Weight reduction for obese patients with PCOS is beneficial in many ways. Drugs include Metformin, OCP (progesterone), Antiandrogens (Spironolactone), Ovulation inducing drugs (Clomiphene citrate and Letrozole). Surgery include Laparoscopic ovarian drilling (LOD).

The ancient science of Ayurveda has a cure for numerous illnesses, including polycystic ovarian syndrome. As suggested by the name, it is a group of numerous ailments, hence a single disease cannot be correlated with this entity.

PCOS in Ayurveda

Artava Kshaya (Su. Sa. Sutra Sthana 15/12) [9]

- **Symptoms**
 - Primary or secondary amenorrhoea (Yathochita Kala Adarshanam)
 - Scanty menses / hypomenorrhoea (Alpata)
 - Dysmenorrhoea (Yoni Vedana)

Artava Dushti [10] (Table 2)

Artava Dushti (Su. Sa. Sharira Sthana 2/4)	Symptoms
Vataja	Oligomenorrhoea with dysmenorrhoea caused by nutritional deficiency.
Kaphaja	Chronic endometritis or cervicitis with oligomenorrhoea.
Ksheena	Hypoestrogenic oligomenorrhoea caused by nutritional deficiency.
Granthibhuta	Cystic appearance, features of both Kapha and Vata.
	Malignant disorders of reproductive system.

Table 2: Applications of Artava Dushti by symptoms.

Shandi Yoni Vyapad (S.S.Ut. 38/18-20)[11]• **Symptoms**

- Primary amenorrhoea (Anartava).
- No breast development (Astana).
- Capable of coitus but vaginal canal is rough.

Bandhya Yoni Vyapad (S.S.Ut. 38/10-11)[12]

- Breast developed (only differentiating point with Shandi).
- Has amenorrhoea (Nastratava considered as destruction of Artava of female foetus)

Vikuta Jataharini (Ka.S.K. 6/34-35)[13]

- Oligomenorrhoea and scanty menses or excessive menses.
- General weakness (metabolic manifestation).

Pushpaghni Jataharini (Ka S.K.6/32-33).

- Woman menstruate in time but it is useless (Vritha pushpam i.e anovulatory cycle).
- Has corpulent and hairy cheeks – hirsutism; may be due to hyperandrogenism. Thus, Pushpaghni Jataharini seems to be nearer to polycystic ovary syndrome.

Discussion

One of the oldest sources of medical knowledge is Ayurveda. Numerous references to the signs and symptoms of PCOS can be found in Ayurvedic literature. Whereas PCOS is not explained as a single disease entity but described under the heading Artavadushti, Artavakshaya, Shandi and Bandhya Yonivyapada, Jataharini. It was observed that different Ahara, Vihara, Agantuja, Mansik Nidana, Prakruti(nature) and Sthana(site) influences the Samprapti of PCOS. Menstrual and ovulatory characteristics of the condition have been taken into account. As a result, it is related to PCOS symptoms. Acharya Charaka also discusses the concept of Anukta Vyadhi. According to this principle, if a disease's name is not stated in an Ayurvedic literature, its signs and symptoms can be used as a basis for correlation, and the condition can be treated based on its symptomatology.

The Ayurvedic perspective to digest food properly, Jatharagni is necessary. It creates Aahar Rasa, which nourishes all of the Dhatus. All Dhatus have its own Agni called Dhatwa Agni which work at tissue level. When we consume junk food and fatty foods, it vitiates Vata and Kapha Dosha which leads to Agnimandya and Pachkaagni/Pitta unable to function effectively and unable to care of its metabolism. As a result,

the resulting Aahar Rasa will not properly nourish Dhatus. Rasa Dhatu is the first Dhatu, and Raja is its Updhatu; in this context, we will refer to Raja as Artava (menstrual flow), therefore if Ras Dhatu is not correctly nourished, it would result in Artava Kshaya/ Nashta Artava, which is the most typical symptom in PCOS patients [14]. The second and third dhatu is Rakta & Mamsa Dhatu as we see the symptoms like acne, complexion, lazy, generalized weakness, acanthosis nigricans, all are the symptoms of PCOS. If meda dhatu is affected it will lead to improper fat deposition which further leads to obesity, again a symptom of PCOS. Then Asthidhatu, Kesh is Updhatu of asthidhatu as symptoms seen in PCOS are Hirsutism, greying of hairs, alopecia so if asthidhatu is not nourished properly again symptoms of PCOS. Majja dhatu helps in nourishment of brain tissues / cells, dushti of majja dhatu responsible for depression, mood swings, & hormonal disturbances again all are the symptoms of PCOS. Last but not the least dhatu i.e., shukra dhatu if it is not nourished properly which leads to anovulation.

Ayurvedic Management**Artava Kshaya**

- It should be treated by the use of Samshodhana and Agneya substances.
- Dalahana says that for Samshodhana, only Vamana should be used, not the Virechana but Chakrapani says that Vamana and Virechana both should be used.
- Agneya substances i.e., Tila, Masha, Sura and Shukta should be used.
- According to Acharya Kashyapa, Anuvasana Basti is beneficial.
- According to Acharya Sushruta, treatment prescribed for Nashtartava can be used (Fish, Kulattha, sour substances, Lashuna, Shatapushpa, Shatawari, Phalaghrita, Shatavaryadi Anuvasana Basti etc.)
- According to Yogratnakara, Shitakalyanaka Ghrita is beneficial.

Artava Dushti**Vataja**

- Snigdha, Ushna, Amla and Lavana Dravya should be used.
- Ghrita medicated with Bharangi, Madhuka and Bhadradaru should be used.
- Nirhu Basti is beneficial like nectar.

Kaphaja

- Katu, Ruksha and Kashaya Dravya should be used.
- Decoction of Kutaja, Katuka and Ashwagandha should be used.
- Vamana should be induced with the decoction of Madanaphala.

Ksheena

- Treatment prescribed for Artava Kshaya should be used.
- Drugs capable of increasing the Rakta should be used.

Granthibhuta

- Decoction of Patha, Triushna and Vrikshaka should be used.

Shandi Yoni Vyapada

- All the measures capable of suppressing the Vata should be used.
- Laghuphalaghrita Pana should be used.

Modern science authors state as their conclusion to their discussion of PCOS: Early detection and intervention, such as weight management, dietary changes, and lifestyle changes may stop the emergence of more PCOS complications.

Ayurveda Starts with the Quote

“Swasthasya Swasthya Rakshanam Aaturasya Vikar Prashmanam Cha” (Ch.Su. 30)

PCOS seems to be a disorder involving Vata, Pitta, Kapha, Medas, Ambuvahasrotas, Artava Dhatu. Thus, these must all be in the course of treatment.

Aahar and Vihar

Normal health requires a balanced diet. Due to dietary anomaly vitiating Doshas, which results in a variety of gynecological conditions could ensue infertility. It also results in Dhatu loss. Which causes hormones to change irregular menstruation periods. Unusual diet hinders the nutrition of the fertilized egg and zygote implantation.

Cruciferous vegetables like Kale, broccoli, cabbage, collard and mustard greens reduce six androgens circulating in the body and insulin sensitivity improves as well as reduction in hyperinsulinemia and improved menstrual cycle and fertility.

Some aerobic exercise and yoga techniques like Anuloma-Viloma, Kapalbhata, Surya Namaskar and Mandukasan detoxify the body leads to increasing endorphins and decreasing stress and cellular inflammation.

Samshamana Chikitsa

It can be utilized to enhance Artava's quality, and these medications also have Vata and Kapha Shamaka effects. Agneya Dravya raises the quality and quantity of Artava and prevents the effects of atypical menstrual cycles by enhancing

the digestive system's performance. Tila and Kulatha, among others, are advised to raise Artava's Pramana.

Aushadhi's like

- Shatavari is essential for regulating the length of the menstrual cycle and restoring regular blood flow and cycle [15].
- Ashwagandha, it lessens stress, which is a common contributor to amenorrhea [15].
- By promoting the growth of the follicles, Shatpushpa helps to regularise cycles and raise ovulation chances [15].
- Ashoka is used to treat menstruation irregularities, hormone imbalance, and skin conditions like acne and hirsutism [15].
- Manjishta balances the kapha and pitta doshas and is a blood purifier [16].
- Guduchi has anti-inflammatory, stress-relieving, and blood sugar- regulating properties [16].
- Latakaranj treats PCOS symptoms such as irregular, infrequent, or absent menstrual cycles as well as other menstrual irregularities [17].
- Classical formulations like
 - Kanchnaar Guggulu
 - Vridhivadhika Vati
 - Arogyavardhini vati
 - Shatavari ghritt
 - Varunadikshaya
 - Pushpdhanwa Ras
 - Yograj guggulu
 - Chandraprabha Vati
 - Pugapaka
 - Jivantyadi Anuvasana Yamaka
 - Mustadi Yapana Basti
 - Sahacharadi Yapana Basti

Samshodhan Chikitsa

Panchakarma therapy offers a crystal-clear solution to the current era's growing PCOS issue. The uterus, ovaries, fallopian tubes, and vagina gain strength during Panchakarma therapy. It maintains the hormonal balance and makes it simple for getting pregnant (Table 3).

According to Acharya Sushruta it should be treated by the use of Samshodhana and Agneya Dravya.

Samshodhan Chikitsa	Mode of Action
1. Basti	After entering Pakvashaya or Guda, Basti begins to work on the entire body. Guda is described as a Sharira Mula with Shiras and Dhamanies that cover the entire body. It has both local and systemic effects. Apana Vata is normalized by Basti Dravyas, enabling normal functioning.
2. Vamana	Its correct Agni, eliminate vitiated excessive Kapha Dosha and correct Vata Dosha by providing proper movement of Vata. It primarily acts on liver metabolism, which is the primary location of hormone synthesis, to help the body's metabolism rise and so reduce weight.
3. Virechana	It eliminates toxic buildup, metabolic waste, and vitiated Dosha from the body. Additionally, it aids in restoring the body's disrupted hormonal levels. Virechana also affects liver metabolism, which helps to restore normal lipid levels.
4. Nasya	It may stimulate the limbic system and olfactory nerves, which in turn stimulates the hypothalamus, stimulating GnRH neurons, regulating GnRH pulsatile production, and causes ovulation.

Table 3: Applications of Samshodhan Chikitsa and its mode of action.

Conclusion

PCOS is a hormonal disorder causing enlarged ovaries with small cysts on the outer edges. Its incidence is on the rise because of modern day lifestyle of youngsters. As suggested by the name, it is a group of numerous ailments, hence a single disease cannot be correlated with this entity in Ayurveda. So, it may be correlated with Artava Kshaya, Artava Dushti, Yoni Vyapada, Bandhya, and Jataharini. According to Ayurveda, PCOS can be managed with Samshodhana Chikitsa and lifestyle modification. Ayurveda can offer a highly suitable solution to this pressing problem of the modern age because other conventional medicines have many side effects and are challenging to manage.

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