

Ayurvedic Interventions for PCOS: A Single-Case Analysis

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Abstract

Polycystic ovarian syndrome (PCOS) is a multifaceted disorder marked by elevated androgen levels, as well as irregular menstrual patterns or the presence of small cysts on either one or both ovaries. It manifests 20-30% more commonly in individuals of childbearing age. The condition gets its name because there is often an increased number of small painless cysts within the ovaries. It is also a metabolic problem that affects various body systems. It is very difficult to cure, in contemporary systems which provide short-term relief. In Ayurveda, PCOS is considered Yonivyapad, Rajo dosha, and Arthava dusti, depending on its clinical presentation. A case of a 29-year-old female complaining of irregular menstruation, prolonged bleeding, Dysmenorrhoea, acne, facial hair growth, and weight gain confirmed PCOS based on symptoms and USG. She was treated based on Ayurveda principles with Shamana oushadis and lifestyle changes for 3 months. The analysis of results was based on the alleviation of clinical symptoms and the findings from the USG report. The results demonstrate a notable improvement in both clinical symptoms and USG reports post-treatment. Adherence to Ayurvedic principles is found to be helpful in PCOS for a healthy and fruitful life.

Keywords: Arthava dusti, Polycystic Ovarian Syndrome, Rajo dosha, Yonivyapad

1. Introduction

Polycystic ovarian Syndrome (PCOS) stands out as the prevalent endocrine disorder among women of reproductive age, arising from insulin resistance and the subsequent compensatory hyperinsulinemia. The prevalence of this condition is unclear but it affects 5.8% to 10% of women of reproductive age worldwide¹. It is found in around 70% of women who have ovulation difficulties leading to subfertility. Polycystic ovarian Syndrome is a condition that has cysts on the ovaries that prevent the ovaries from performing normally. Symptoms of Poly Cystic Ovarian Syndrome include Amenorrhea or infrequent menstruation, irregular bleeding, infrequent or no ovulation, multiple immature follicles, increased levels of male hormones, male pattern baldness or thinning of hair, excess facial and body hair growth, acne, oily skin or dandruff, dark colored patches of skin especially on neck, groin, underarms, chronic pelvic pain, increased weight or obesity, diabetes, lipid abnormalities, and high blood pressure².

It is a hormonal disorder causing enlarged ovaries with fluid-filled sacs on the outer edges because of abnormal hormonal levels. In which the ovaries produce an abnormal amount of androgens, i.e. male sex hormones that are usually present in women in small amounts³.

According to the Ayurvedic view, PCOS can be correlated with Aarthava Kshaya, Yonivyapad, Rajodosh, and Vishamarthava. Ayurveda places a strong emphasis on preserving Shudha Arthava (healthy ovum)

during the fertile period. Practices such as Rutumatcharya, Dinacharya, and Rajswalacharya play a vital role in achieving and maintaining a healthy life⁴. Neglecting these charyas (manners) can result in stress and tension, leading to the consumption of unhealthy foods that adversely affect the formation of Rasa Dhatu, impacting all dhatus, especially Medho Dhatu (fat tissue) and Rakta Dhatu (blood cells).

By the concept of Asrayi Asraya Bhavas, Kapha Dosha becomes affected, leading to blockages in srotas (channels), which in turn aggravate Vata and cause Dhatu kshaya (depletion). Consequently, there is a decrease in Rasa Dhatu, ultimately contributing to the Kshaya of its Upadhatu, namely Arthava Kshaya (anovulation). Additionally, hormonal imbalances manifest as Pitta Dushti in this context.

2. Case Study:

A 29-year-old married female patient apparently healthy presented herself at Purely Yours online consultation platform with a complaint of an irregular menstrual cycle, and prolonged and excessive uterine bleeding persisting for the past 4 years. The menstrual cycle was once in 3 months for the past 1 year along with dysmenorrhea. She had other symptoms like mild acne, facial hair growth, hair fall, and weight gain of 15 kg. She also had sour belching and pain in the epigastric region. Her USG findings reveal bilateral PCOS.

Past History

No relevant history

Family History

The father has been diabetic for the past 2 years and the mother has a K/C/O Hypothyroidism and Hypertension for several years.

Treatment History

Had taken hormonal treatment for the past 3 years and did not find improvement.

Surgical History

No relevant history

Table No 1: Menstrual History

| | |
|--------------------------------|------------------|
| Menarche | 12 years |
| Cycle | Irregular |
| Interval | Once in 3 months |
| No days of bleeding | 7-8 days |
| No pads per day | 4-5 pads daily |
| Dysmenorrhoea | ++ |
| Clots | ++ |
| White discharge | ++ |
| Vaginal itching and foul smell | ++ |
| LMP | 5/03/2023 |

Obstetric History

P0, A0, L0, DO

Marital History: Married life of 4 years, unable to conceive due to PCOS

Table 2: Personal History

| | |
|---------|---------|
| Kshudha | Reduced |
| Ahara | Mixed |

| | |
|---------|-------------------|
| Nidra | Disturbed |
| Vihara | Avyayama, Chinta |
| Vyasana | Fond of junk food |

Table 3: Dashavidha Pariksha

| | |
|----------------|-----------------------|
| Prakruti | Pitta-Kapha |
| Vikruti | Kapha-Vata |
| Dushya | Rasa- Medo dhatu |
| Sara | Madhyama |
| Samhanana | Madhyama |
| Satwa | Madhyama |
| Ahara shakti | Abhyavahara -Madhyama |
| | Jarana – Madhyama |
| Vyayama Shakti | Avara |
| Sathmya | Madhyama |
| Vaya | Madhyama |
| Pramana | Pravara |

Table 4: Astavidha Pariksha

| | |
|---------|--|
| Nadi | Could not examine |
| Mala | Normal |
| Mutra | Prakrita 4-5 vegas/day and 1 vega /night |
| Jihva | Anupalipta |
| Shabda | Prakrita |
| Sparsha | Could not examine |
| Drik | Prakrita |
| Akruti | Sthoola |

Table 5: General Physical Examination

| | |
|-----------------|----------------|
| Appearance | Bulky |
| Built | Well-built |
| Nourishment | Well-Nourished |
| Gait | Normal |
| Pallor | Absent |
| Icterus | Absent |
| Cyanosis | Absent |
| Clubbing | Absent |
| Oedema | Absent |
| Lymphadenopathy | Absent |

Systemic Examination- Not examined

USG Findings

Endometrial thickness measured 14 mm. Fine cysts of 1-2mm size are seen within the endometrium. The ovaries have volumes between 11-12cc. There are 20-25 small follicles in either ovary.

Blood Investigations

CBC- Within the normal limit

Thyroid profile- Within the normal limit

Blood sugar- Within the normal limit

Hormonal assay- Not done

Diagnosis

The diagnosis was done clinically by following symptoms as per Rotterdam criteria⁵

- Irregular menstrual bleeding
- Abnormal menstrual cycle
- Weight gain
- Hyperandrogenism
- Polycystic ovarian morphology in USG

The patient was well built with 70kg. Based on clinical history, physical examination and USG reports the patient was diagnosed with PCOS.

According to Ayurveda, Samprapthi ghataka is as follows

Hetu- Avyayama, Guru- Snigdha ahara, Atimamsa sevana

Dosha- Kapha- Vata

Dushya- Rasa and Medha dhatu

Srotas- Rasavaha, Medovaha and Arthavavaha

Srotodusti- Sanga, Atipravritti

Prathyatma lakshana- Anarthava, Atyarthava, Sthoulya

3. Treatment

a. Nidana Parivarjana

b. Shamana Chikitsa

Table 6- Internal Medication Given for Three Months

| Date | Name of the Medicine | Dose | Kala | Frequency | Anupana |
|------------------------|----------------------|------------|-------------|-------------|----------------|
| 6/05/2023 to 6/06/2023 | Kanchanara Guggulu | 1 tablet | After food | Twice daily | Lukewarm water |
| | Cap Flo veda | 1 tablet | After food | Twice daily | Lukewarm water |
| | Cap Femme balance | 1 tablet | Before food | Twice daily | Lukewarm water |
| | Avipattikara Churna | 1 teaspoon | Before food | Twice daily | Lukewarm water |
| 7/06/2023 to 7/07/2023 | Kanchanara Guggulu | 1 tablet | After food | Twice daily | Lukewarm water |
| | Cap Flo veda | 1 tablet | After food | Twice daily | Lukewarm water |

| | | | | | |
|------------------------|---------------------|----------------------|------------------|-------------|----------------|
| | Avipattikara Churna | 1 teaspoon | Before food | Twice daily | Lukewarm water |
| | Cap Femverve | 1 tablet | Before food | Twice daily | Lukewarm water |
| | Organic Ova calm | As a tea replacement | In empty stomach | Once daily | Warm water |
| 8/07/2023 to 8/08/2023 | Cap Femverve | 1 tablet | Before food | Twice daily | Lukewarm water |
| | Organic Ova calm | As a tea replacement | In empty stomach | Once daily | Warm water |
| | Cap Flo veda | 1 tablet | After food | Twice daily | Lukewarm water |

c. Yoga and Pranayama

Table 7- Yogasana and Pranayama Advised for Three Months

| Asanas /Pranayama | Duration |
|---|---|
| Nadi shodhana Pranayama | 1 minute |
| Kapalabhati | 90-120 repetitions |
| Warm-up | Neck rotation, ankle rotation, torso rotation |
| Suryanamaskara | 12 rounds |
| Standing posture asanas- Trikonasana, Virabhadrasana, Daiviyasana, Anjaneyasana | 8-10 repetitions on each side |
| Sitting posture asana- Gomukasana, Ardhamatsyendriyasana, chakki chalanasana, Malasana, Butterfly pose, Padmasana | 8-10 repetitions on each side Or 1-2 minutes |
| Supine position- Navakasana, Halasana, Setu bhandasana, Sarvangasana | 1 minute each |
| Prone position- Dhanurasana, Bhujangasana, Tiryak bhujangasana , Shalabasana | 1 minute each |

d. Diet advice

Customized diet charts have been given to the patient

Follow-up and outcome after 3 months

4. Observation and Results

Table No 8- Changes in Clinical Signs and Symptoms Before and After Treatment

| Symptoms | Before Treatment | After 1 Month | After 2 Months | After 3 Months |
|-----------------------------------|------------------|------------------|----------------|----------------|
| Irregular Menstruation | Present | Absent | Absent | Absent |
| Prolonged Uterine Bleeding | Present | Absent | Absent | Absent |
| Amount of Bleeding | 4-5 pads daily | 2-3 pads daily | 2-3 pads daily | 2-3 pads daily |
| Acne on Face | Present | Slightly reduced | Absent | Absent |

| | | | | |
|--|---------|---------|------------------|----------------------|
| Facial Hair Growth | Present | Present | Slightly reduced | Very few are present |
| Dysmenorrhoea | Present | Absent | Absent | Absent |
| White Discharge | Present | Absent | Absent | Absent |
| Vaginal Itching and Foul Smell | Present | Absent | Absent | Absent |
| Sour Belching and Pain in Epigastric Region | Present | Absent | Absent | Absent |
| Change in Weight | 70 kg | 69kg | 67kg | 64kg |

Result of investigation

Table No 9 - Ultrasonography Report Before and After Treatment

| Before Treatment | After Treatment |
|--|------------------------------|
| Right Ovarian Volume -12 cc | Right Ovarian Volume- 5.8 cc |
| Left Ovarian Volume-11 cc | Left Ovarian Volume-7.5 cc |
| Endometrial thickness -14mm | Endometrial thickness-4.7mm |
| Polycystic changes of both ovaries. A fine cyst of 1-2 mm is seen within the endometrium | No significant abnormality |

5. Discussion

Ayurveda, the ancient system of traditional medicine from India, describes gynecological diseases and conditions under the term "Yonivyapad." Yonivyapad refers to disorders and ailments related to the female reproductive system, including the uterus, ovaries, fallopian tubes, and vagina. As there is no direct reference to PCOS in Ayurveda classical texts, depending upon the symptoms it can be correlated to Arthavavaha srothodusti, Rajodoshajavikara, Vishamarthava, and Yonivyapad.

Improper diet and lifestyle choices, referred to as Apathya Aahara Viharas, lead to the accumulation of Aama in Rasa Dhatu, which in turn disrupts Arthava Upadhatu. This pathological condition results in the improper selection and maturation of ova. The Aama generated during this process further vitiates the other Dhatus, resulting in noticeable symptoms such as excessive weight gain and hair loss. These manifestations can be observed as issues like obesity, abnormal hair growth, and hair loss. The imbalances of Kapha and Medho Doshas often arise due to the excessive consumption of unhealthy foods, coupled with a lack of physical activity (Avyayama) and daytime sleep (Divaswapna).

To address these disturbances in Doshas and Dhatus, therapeutic measures involving carminative, digestive (Pachana), Vatanulomana (balancing Vata), Lekhana (scraping or reducing), and Arthava Janana (ovulation-inducing) properties should be employed to restore normalcy to this condition.

Action of medicine

a) Femverve Capsule – Femverve capsule is a proprietary Ayurvedic formulation from Purely Yours having Shatavari, Gokshura, and Methika as the ingredients. This capsule brings balance and strength to the menstrual system and it helps to regulate Arthava Dhatu. It improves and harmonizes levels of testosterone and estrogen in women, thereby helping to improve symptoms of PCOS. Insulin resistance

and androgen excess are the major concerns in PCOS, Methika in this capsule checks insulin resistance, and both Sharatavri and Gokshura correct androgen excess. This helps in relieving symptoms like hair fall, acne, and facial hair growth. It averts the formation of new cysts and also prevents the remission of the disease.

- b) Flo Veda Capsule-** Flo Veda capsule is a proprietary Ayurvedic formulation from Purely Yours that is primarily beneficial for treating menstrual problems including Dysmenorrhea, abdominal pain, and heavy menstrual flow. It has Lodhra, Ashoka, Lajjal, and Kumari as the key ingredients. Most of the herbs in this capsule have Sheeta veerya[cold potency] and Sangrahi[absorbent] properties. The astringent property of the herbs acts as a hemostat (that stops bleeding). It strengthens the female reproductive organs, manages the menstrual cycle, and triggers ovulation thereby stimulating the ovaries to produce eggs that mature into follicles and also helps in the development of the corpus luteum. It improves fertility when an individual is trying to conceive. Its anti-androgen action reduces testosterone levels and manages PCOS.
- c) Femme balance Capsule-** Femme balance capsule is a proprietary Ayurvedic formulation from Purely Yours that is used to treat Shweta pradara or white discharge. It has Lodhra, Dhataki, Rasanjana, and Vanga Bhasma as the key ingredients. It targets both bacterial and fungal infections, along with restoring vaginal pH and providing relief from itching, odor, and burning sensation to maintain optimal vaginal health. It helps to control aggravated Kapha and reduce the symptoms of leucorrhea. helps in controlling vaginal infections that cause white discharge. Its cold potency helps to relieve a burning sensation. It also helps to heal rashes and prevent recurrence.
- d) Organic Ova Calm Herbal tea-** Organic Ova Calm is a proprietary Ayurvedic formulation from Purely Yours that addresses most gynecological disorders. It provides instant relief in conditions like dysmenorrhoea. Properties of Deepana and Pachana of the herbs elevate the Jatharagni, Dhatvagni as well as Arthavagni. It has the ingredients of Kanchanara, Shatapushpa, Gokshura, Jeeraka, Vrikshamla, Shatavari, and Ajamoda. Shatavari is rich in phytoestrogen that regulates the menstrual cycle by regulating testosterone levels. It nourishes and rejuvenates ovarian function. Kanchanara reduces the size of the cyst and arrests its further growth. Shatapushpa, Ajamoda, and Jeeraka due to their Deepana-Pachana properties induce the menstrual cycle and help in ovulation. Gokshura helps to fight glucose intolerance and helps to improve libido. Vrikshamla helps in managing obesity and boosts metabolism.
- e) Kanchanara guggulu-** Kanchanara Guggulu is a time-honored and classical polyherbal remedy employed in the management of conditions like tumors, cystic swellings, PCOS, and ulcers. Its action involves diminishing swellings and masses by addressing the excess Kapha and bodily fluids, effectively promoting their reduction. It helps to destroy cysts on ovaries and stimulate follicular maturity. This remedy is highly proficient in harmonizing Kapha dosha. The guggulu's bitter, astringent, and pungent flavors contribute to the burning of abdominal fat and fat from various body regions, while also improving the digestive process. Moreover, this Ayurvedic medication enhances metabolism, facilitating weight loss efforts.
- f) Avipattikara Churna-** Avipattikara Churna is an Ayurvedic medicine used for treating conditions that affect the normal functioning of the digestive and excretory systems. It helps to relieve symptoms of Amla pitta like Sour belching, pain in the epigastric region, and nausea. Its Vatanulomana action helps in managing dysmenorrhoea. Administering it daily acts as nitya virechana and helps in expelling doshas associated with PCOS.

6. Conclusion

The results obtained from this case study suggest that Ayurvedic treatment effectively contributes to the management of PCOS. Nevertheless, further research involving a larger number of patients is necessary to enhance the assessment and validation of these findings.

7. **Acknowledgment-** Not applicable

8. **Abbreviation-** Not applicable

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10. Conflict of interest

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