

## A CASE STUDY ON AYURVEDIC MANAGEMENT OF POLY CYSTIC OVARIAN SYNDROME {PCOS}

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### ABSTRACT :

Poly cystic Ovary Syndrome (PCOS) is a common endocrine disorder affecting women of reproductive age, characterized by a constellation of symptoms including irregular menstrual cycles, hyper androgenism, and poly cystic ovaries. The etiology of PCOS is multi factorial, involving a combination of genetic, hormonal, and environmental factors. Insulin resistance and hyper insulinemia play a pivotal role in the pathogenesis of PCOS, often leading to obesity and an increased risk of type 2 diabetes and cardiovascular disease. Diagnosis is typically based on the Rotterdam criteria, which require the presence of at least two of the following: oligo- or anovulation, clinical or biochemical signs of hyper androgenism, and poly cystic ovaries on ultrasound. Management of PCOS is tailored to the individual's symptoms and may include lifestyle interventions, pharmacological treatments such as oral contraceptives and anti-androgens, and fertility therapies for those seeking pregnancy. Despite being a prevalent condition, PCOS remains under diagnosed and under treated, highlighting the need for increased awareness and research to better understand its pathophysiology and improve therapeutic strategies.

### AIM AND OBJECTIVES :

In Ayurveda, the aim and objectives for managing PCOS (Polycystic Ovary Syndrome) focus on restoring balance to the doshas (bioenergetic forces), eliminating toxins (ama), and promoting overall health and well-being.

#### Aim :

1. Restore Hormonal Balance
2. Reduce Ovarian Cysts
3. Manage Symptoms
4. Prevent Complications

#### Objectives:

1. Detoxification (Shodhana):
2. Balancing Doshas (Samana):
3. Strengthening Digestive Fire (Agni):
4. Herbal Therapy (Aushadha):

5. Diet and Lifestyle Modifications (Ahar-Vihar):

- Yoga and Exercise

6. Mind-Body Connection (Manasika):

- Stress

**MATERIALS AND METHOD :**

Information will be obtained from Brihatrayi, Research Articles, Modern books and Samhitas, Websites etc.

**INTRODUCTION :**

Poly Cystic Ovarian Syndrome (PCOS) is the most common endocrinopathy in women of reproductive age, resulting from insulin resistance and the compensatory hyper insulinemia. This results in adverse effect on multiple organ systems and may result in alteration in serum lipids, anovulation, abnormal uterine bleeding and infertility.

According to Ayurvedic view PCOS can be correlated with AarthavaKshaya. It was revealed that most of sub fertility patients who were presented Osuki Ayurveda Centre suffered from the PCOS. Therefore the present study was carried out for the clinical evaluation of the efficacy of Ayurveda treatment regimen on sub fertility with PCOS.

**SIGNS and SYMPTOMS :**

Common signs and symptoms of PCOS:

1. Irregular Menstrual Cycles: Women with PCOS often have irregular periods, which may be infrequent or prolonged. Some may experience very light or heavy menstrual bleeding.
2. Ovulation Issues: PCOS can cause problems with ovulation, leading to difficulty in conceiving or infertility.
3. Hyperandrogenism: Elevated levels of male hormones (androgens) can cause symptoms such as:
4. Hirsutism: Excessive hair growth on the face, chest, abdomen, or back.
5. Acne: Particularly severe or persistent acne that does not respond well to typical treatments.
6. Male-pattern Baldness: Thinning hair or hair loss similar to male pattern baldness.
7. Polycystic Ovaries: Enlarged ovaries containing numerous small cysts (fluid-filled sacs) around the outer edge. However, not all women with PCOS have polycystic ovaries, and having them alone does not necessarily mean you have PCOS.
7. Weight Gain: Especially around the abdomen.
8. Risk of Type 2 Diabetes: Due to impaired glucose metabolism.
9. Metabolic Syndrome: This can include high blood pressure, high cholesterol levels, and an increased risk of cardiovascular disease.
10. Mood Changes: Some women with PCOS may experience mood swings, depression, or anxiety.

11. Skin Changes: Darkening of skin in certain areas such as the neck creases, groin, and under the breasts due to insulin resistance.

It's important to note that not all women with PCOS will experience all of these symptoms, and the severity can vary widely.

#### **DIFFERENTIAL DIAGNOSIS :**

Diagnosing PCOS (Poly cystic Ovary Syndrome) involves ruling out other conditions that may present with similar symptoms. The differential diagnosis of PCOS includes several other medical conditions that share some clinical features.

1. Hypothalamic Amenorrhea
2. Ovarian or Adrenal Tumors:
3. Congenital Adrenal Hyperplasia (CAH):
4. Cushing's Syndrome:
5. Thyroid Disorders (e.g., Hypothyroidism, Hyperthyroidism):
6. Non-Classical Congenital Adrenal Hyperplasia (NCCAH):
7. Androgen-secreting Tumors (e.g., ovarian or adrenal tumors):
8. Premature Ovarian Insufficiency (POI):

Differential diagnosis of PCOS involves considering various conditions that share overlapping symptoms. A thorough clinical evaluation, including history, physical exam, and appropriate laboratory and imaging studies, is essential for accurate diagnosis and appropriate management.

#### **INVESTIGATION and DIAGNOSIS :**

Diagnosing PCOS (Poly cystic Ovary Syndrome) involves a combination of clinical evaluation, assessment of symptoms, laboratory tests, and imaging studies.

1. Medical History and Physical Examination:
  - Menstrual History: Assessing the regularity and pattern of menstrual cycles.
  - Symptoms of Hyper androgenism: Such as hirsutism (excessive hair growth), acne, and male-pattern baldness.
  - Physical Examination: Checking for signs such as obesity (especially abdominal obesity), acanthosis nigricans (dark, velvety skin in body folds), and signs of excess androgens (e.g., hair distribution).
2. Laboratory Tests:
  - Hormone Levels:
  - Serum Testosterone: Elevated levels may indicate hyper androgenism.
  - Sex Hormone Binding Globulin (SHBG): Low levels are common in PCOS.
  - DHEAS (Dehydroepiandrosterone sulfate): Elevated in adrenal androgen excess.

- LH (Luteinizing Hormone) and FSH (Follicle-Stimulating Hormone): Typically, an elevated LH/FSH ratio ( $>2$ ) is observed in PCOS.
- Prolactin: To rule out other causes of menstrual irregularities.
- Glucose and Insulin Levels: Often tested to assess for insulin resistance, which is common in PCOS.
- Fasting Glucose: To detect impaired glucose tolerance.
- Fasting Insulin: Elevated in insulin resistance.
- HbA1c: Reflects average blood glucose levels over the past 2-3 months.
- Lipid Profile: Assessing lipid levels (e.g., cholesterol, triglycerides) due to the increased risk of dyslipidemia in PCOS.

### 3. Imaging Studies:

- Pelvic Ultrasound: To visualize the ovaries and assess for the presence of polycystic ovaries.
- Criteria for Diagnosis: Typically, diagnosis includes the presence of 12 or more follicles in each ovary measuring 2-9 mm in diameter and/or increased ovarian volume ( $>10$  mL).

### 4. Additional Tests:

- Thyroid Function Tests: To rule out thyroid disorders that may present with similar symptoms.
- Androgen-secreting Tumor Evaluation: If clinically indicated, further imaging studies (e.g., MRI) may be performed to rule out ovarian or adrenal tumors.

### Diagnostic Criteria for PCOS:

- The diagnosis of PCOS is typically made based on the Rotterdam criteria, which require the presence of at least two out of three of the following:
  1. Oligo-ovulation or anovulation: Irregular or absent menstrual cycles.
  2. Clinical and/or biochemical signs of hyper androgenism: Such as hirsutism, acne, elevated testosterone levels.
  3. Poly cystic ovaries: As visualized on ultrasound, characterized by the presence of multiple small follicles arranged peripherally around an increased ovarian volume.

### PCOS in AYURVEDA :

In Ayurveda, PCOS (Polycystic Ovary Syndrome) is understood as a disorder of the reproductive system that affects hormonal balance and menstrual health. Ayurveda, an ancient Indian system of medicine, views health as a balance between the body, mind, and spirit. PCOS is believed to arise due to an imbalance in the doshas (bioenergetic forces) and the accumulation of toxins (ama) in the body.

### Etiology (Cause) :

- Dosh imbalance: PCOS is primarily associated with an imbalance in the Kapha and Pitta doshas. Kapha imbalance can lead to excess weight gain and fluid retention, while Pitta imbalance can cause inflammation and hormonal disturbances.

- Ama Accumulation: Poor digestion and metabolism can lead to the accumulation of toxins (ama), which can block channels (srotas) in the body, including reproductive channels.

**Types (bheda)****I. Shandi Yoni Vyapad ( C.S. )**

"Bijdoshattugarbhasthmarutophatshya. Nradweshinyastanichavshandisyadanupkramah" (C.S.Ch. 30/34-35)

- > A congenital disorder (bijadosha).
- > Absence or slight development of breasts.
- > Dislike coitus.
- > Incurable Disease.

**ii. Shandi Yoni Vyapad ( S.S. )**

"Anartavstnashandikharsparshachamaithune. Chasrashvapichadhyasusarvlingochhitirbhavet" (S.S.Ut. 38/18-20).

- > Primary amenorrhoea (anartava).
- > No breast development (astana).
- > Capable of coitus but vaginal canal is rough.

**iii. Bandhya**

"Yada hyasyahshonitegarbhashyabeejbhagahpradoshmapadyate.Tadabandhyamjanyati" (C.S.Sh. 4/30).

**iv. Bandhya Yoni Vyapad**

"Bandhyamnashartvamvidhyatchashrastpichadyasubhavantyanilvednah" (S.S.Ut. 38/10-11).

- > Breast developed (only differentiating point with shandi).
- > Has amenorrhoea (nastratava considered as destruction of artava of female foetus).

**v. VikutaJatiharini**

"Kalvarnapramaneryavishmampushpamrichhati.Animittbalglanirvikutanamsasmrita" (Ka.S.K. 6/34-35).

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

**vi. PushpaghniJatiharini**

"Vrithapushpamtuyonriyathakalprapashyati. Sthulalomashgandavpushpaghniisaapirevati"(Ka S.K.6/32-33).

Thus PushpaghniJatiharini seems to be nearer to polycystic ovary syndrome.

- >Sthulapurusha (obese person ) in ashtanindiya (censurable person)described by Acharya Charak have discribed 8 faults which include polyuria,polydipsia and short life. This conditionmay simulate with hyper insulinemia condition.

>Atiloma person with excessive hair growth is also a censurable person.

Above two conditions may indicate female afflicted with PCOS.

### Symptoms

1. ArtavaKshaya (Menstrual Irregularities): Irregular or absent menstrual cycles (oligomenorrhea or amenorrhea).
2. SthanaSankocha (Ovarian Cysts): Formation of ovarian cysts due to disturbed ovarian function.
3. Increased Kapha Symptoms: Such as weight gain, excess mucus production, and sluggishness.
4. Increased Pitta Symptoms: Such as acne, inflammation, and irritability.

### Diagnosis

Ayurvedic diagnosis involves assessing the patient's constitution (Prakriti) and current imbalance (Vikriti) through:

1. Pulse Diagnosis (NadiPariksha): Assessing the pulse for dosha imbalances.
2. Tongue Examination (JihvaPariksha): Looking at the tongue for signs of ama accumulation.
3. Physical Examination: Checking for signs such as weight gain, acne, and hirsutism.

### MANAGEMENT :

#### Modern Medical Management

Modern medicine focuses on symptom management and addressing the underlying causes of PCOS. The main strategies include:

#### Pharmacological Treatment:

- 1.Oral Contraceptives: Regulate menstrual cycles and reduce androgen levels.
- 2.Anti-androgens: Medications like spironolactone to reduce symptoms of hyperandrogenism.
- 3.Metformin: Improves insulin sensitivity and can help with weight management and ovulation.
- 4.Fertility Treatments: Clomiphene citrate and letrozole to induce ovulation in women trying to conceive.

#### Lifestyle Modifications:

- 1.Diet: Emphasis on a balanced diet with low glycemic index foods to manage insulin levels.
2. Exercise: Regular physical activity to improve insulin sensitivity and aid in weight management.
3. Weight Management: Even a modest weight loss can improve symptoms and menstrual regularity.

#### Surgical Options:

1. Ovarian Drilling: A laparoscopic procedure to induce ovulation in women who do not respond to medication.

#### Ayurvedic Management

Ayurveda, the traditional system of medicine from India, offers a holistic approach to managing PCOS by focusing on restoring balance in the body. Key principles include:

### **Dietary Changes (Ahara):**

1. Balanced Diet: Emphasis on fresh, organic, and easily digestible foods.
2. Avoidance: Reduce intake of processed foods, refined sugars, and excessive dairy products.
3. Herbal Teas: Use of teas made from herbs like ginger, cinnamon, and mint.

### **Herbal Remedies (Dravyaguna):**

1. Ashwagandha: Adaptogen that helps in reducing stress and balancing hormones.
2. Shatavari: Supports reproductive health and hormone balance.
3. Triphala: Aids in detoxification and improves digestion.
4. Cinnamon and Turmeric: Known for their anti-inflammatory properties and ability to improve insulin sensitivity.

### **Lifestyle Practices (Vihara):**

1. Regular Exercise: Incorporates yoga, walking, and other moderate exercises.
2. Stress Management: Practices such as meditation, pranayama (breathing exercises), and mindfulness.
3. Daily Routine (Dinacharya): Following a consistent daily routine to maintain balance and health.

### **Detoxification (Panchakarma):**

1. Virechana (Purgation): Cleansing procedure to eliminate toxins and balance hormones.
2. Basti (Medicated Enema): Specific enemas to support reproductive health and detoxification.

**Specific Therapies:** Depending on individual symptoms and constitution, specific therapies like Uttar Basti (vaginal administration of medicated oils) or Nasya (nasal administration of medicated oils) may be employed.

### **Follow-up and Monitoring:**

- Ayurvedic treatment for PCOS typically involves a holistic approach over time, focusing on lifestyle changes, dietary modifications, and herbal therapies. Regular follow-up helps monitor progress and adjust treatment as needed.

### **Integrative Approach**

Combining Ayurvedic and modern medical approaches can provide a comprehensive strategy for managing PCOS.

### **Key aspects include:**

1. Holistic Care: Addressing both physical and mental health aspects.
2. Personalized Treatment: Tailoring treatments to individual needs and symptoms.
3. Complementary Practices: Using Ayurvedic herbs and lifestyle practices alongside modern medical treatments for synergistic effects.



## Conclusion :

Ayurveda provides a comprehensive approach to managing PCOS by addressing the underlying imbalances in the body's doshas and promoting overall health and well-being. It emphasizes personalized treatment based on an individual's constitution and symptoms, aiming not only to alleviate symptoms but also to prevent future imbalances and promote long-term health. Consulting with a qualified Ayurvedic practitioner is essential to receive tailored treatment and guidance for PCOS management.

## REFERENCES :

Ayurvedic Texts and Classics:

**Charaka Samhita:** This ancient Ayurvedic text mentions various gynecological disorders and their management, including conditions that correlate with modern PCOS symptoms.

**Sushruta Samhita:** Another foundational text of Ayurveda that discusses female reproductive health and herbal treatments for related conditions.

### Modern Ayurvedic Books and Resources:-

1- Lad, V. (1999). Textbook of Ayurveda

2-Sharma, H., & Clark, C. (2016). Contemporary Ayurveda

3-"The PCOS Solution: An Evidence-Based Approach to Restore Fertility, Balance Hormones, and Take Charge of Your Health" by Dr. Samantha Bowick.

4-Dr. Bowick provides evidence-based strategies for managing PCOS symptoms, including lifestyle changes, diet modifications, and medical treatments.