

Concept of Polycystic Ovarian Syndrome in Ayurveda Perspective

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Abstract: Polycystic ovarian syndrome is endocrine disorder of HPO axis (hypothalamic pituitary ovarian axis). In India PCOD prevalence is 4.25% and in adolescence is 9.13%. The incidence of PCOD is more in obese women than in lean women. PCOD is life style disorder because of sedentary lifestyle & unhealthy food habits. Its characteristics are oligomenorrhea, amenorrhea, primary or secondary infertility, obesity, hyperandrogenism. PCOS is not a disease rather it is syndrome which includes multiple factors & multiple system. In ayurveda classic there is no direct co - relation with PCOS but it can be understood in terms of like anartva, aartavakshaya, nastartaava. Acharya Charka says that all the disease could not be named, so Vaidya should know the disease condition according to the involvement of dosha, dhatu and srotas. In the present study an attempt is made to understand PCOS with the help of hetu, lakshana, dosha, dhatu, samprapti in ayurveda.

Keywords: PCOS, oligomenorrhea, Anartva, aartavakshaya, nastartaava

1. Introduction

PCOS is a common endocrine condition of the hypothalamus pituitary ovarian axis that results in anovulation or oligo - ovulation, which increases the amount of androgen in the ovary's cortex.¹ In PCOD, ovaries are enlarged, ovarian volume increases by more than 10cm³, and many follicular cysts are clustered around the cortex². The prevalence of PCOS ranges from 2.2% to 26% among women aged 18 to 45. In India, its prevalence is between 4% and 25%. The prevalence of PCOS is rising daily as a result of dietary changes, stress, a lack of exercise, and altered lifestyles⁴. In Ayurveda classics for PCOS, there is no direct correlation, but we can understand it's *Nidanapanchaka* by analyzing doshas, dhatu, *dhatu*, *agni*, *srotas* etc.

Aim and Objective

- 1) To study etiopathogenesis of PCOS w. s. r to nidanapanchaka.
- 2) To evaluate symptomology of PCOS w. r. s to ayurveda lakshana.
- 3) To evolve the management principles and enlist certain Ayurvedic drugs that would be beneficial in the management of the polycystic disease.

2. Materials and Methods

Modern literature, all available ayurvedic classic, commentaries, journals and research paper were thoroughly studied and then an effort is made to understand PCOS.

Type of the study: Conceptual study

Nidanapanchaka for Polycystic ovarian syndrome - Factors causing all vyadis are *nidanapanchaka* - *nidana*, *poorvaroopa*, *roopa*, *upashaya*, *samprapthi*⁵.

1) NIDANA: *Nidana* is the causative factor for any disease. In classics, no specific etiology is mentioned, so general causative factors of *yonivyapad* can be taken as etiological factors for PCOS, which are *Mithya achara*, *Pradushta artava*, *Bijadosha*, *Daiva*⁶.

a) Mithya achara: includes both *mithya - ahara* and *mithya - vihara*. Acharya Sushruta and Vagbhata mentioned that *vata* and *pitta* are responsible for *nashtartava* and *anaartava*, and *vitiated kapha aavrutha vata*^{7, 8}. In *Nidana of Aartava Kshaya*, *Dalhana* enumerates *Vega Dharana*, *anna*, *manasthapa*, *avyayama* etc.

Nidana for vata & kapha aggravation

HETU	HETU FOR VATA AGGREVATION	HETU FOR KAPHA AGGREVATION
Aharaja hetu	Rasa - ati tikta & Kashaya prominent aahara. Guna - excessive intake of laghu, sheeta, ruksha aahara	Rasa - ati Madhur, ati - lavana aahara Guna - excessive intake of guru, abhishyanadi, picchila aahara
Viharaja hetu	Ativyavaya Ati - vyayama Ratri jagrana Vegadharana	Diwaswapana Aalasya Avyayama
Manasika hetu	Krodha (anger) Chinta (stress) Bhaya (fear)	

These *aharaja* and *viharaja nidanas* can be correlated with the cause of PCOD, i. e., sedentary lifestyle, diet, and stress. 50–70% of patients with PCOD are obese or overweight because of *adhyasana*, or overeating leads to *agnimandhya*, by which proper *rasa dhatu* will not be formed and manifests *sthaulya*. Variation in sleep patterns leads to an imbalance in hormones.

b) *Pradushta artava*: *Artava* can be correlated with ovarian hormones. In PCOD patients, the HPO axis is altered, which maintains ovarian hormone, so an imbalance in hormone leads to PCOS.

c) *Bijadosha*: It includes genetic and chromosomal abnormalities. First - degree relatives have more chance of PCOS.

d) *Daiva*: It includes an unknown factor, idiopathic.

2) **POORVAROPA**: *Poorvaroopa* are mild symptoms of *vyadi*, or the initial stage of disease. Mild symptoms of PCOD are menstrual irregularities, scanty bleeding, acne, weight gain, etc., before involvement of multiple organs and systems.

3) **ROOPA**: PCOD becomes PCOS when multiple organs and systems are involved and manifest endocrinological, metabolic and psychological signs and symptoms. This condition can be considered *roopa* when all the signs and symptoms appear.

The following signs and symptoms are seen in PCOS:

- *Atisthoulya*: Obesity is one of the main criteria in PCOS. Vitiating *kapha dosha* causes *medodhatu dushti*, which leads to
- *Vandhya*: In PCOS, there is anovulation, which leads to infertility. *Upadhatu* of *rasa dhatu* are *stanya* and *aartva*. If *rasa dhatu* is not formed properly, then *artava dhatu* is also not formed properly, and in the long term, it causes *Vandhya*.
- *Angamarda*: In Long term PCOD, insulin resistance leads to reduce glucose uptake causing lethargy.
- *Ashraddha*: - *Kapha aahar vihara* cause *indriya lepa* and effect on *mana* by which function is hampered and manifest *ashraddha*. In PCOS mood swings and depression are very common.
- *Akala khalitya - palitya*: graying of hairs and hair falling because of more androgen hormone.
- *Neelika means* high pigmentation of the skin. It is seen in *raktavaha srotas dushti*. Improper *utharothara dhatu* formation manifests this In PCOS, there is thickening and darkening of the skin around the neck, underarm, and groin region—Acanthosis Nigricans.
- *Anaartava, nastaaratva, and artava kshaya*: *Apana vata* aavrita by *kapha*, which obstructs the *apana vata's* normal function. In PCOS, due to hormonal imbalance, menstrual irregularities will be present.
- *Atyartva*: Sometimes the release of *avarana* will be there, which causes prolonged bleeding and excessive
- *Atiloma*: It is *pitruja bhava*. Excess insulin stimulation causes the ovaries to produce more androgen.

4) **UPASHAYA**: *Upashaya ahara* and *vihara* mean that they decrease the signs and symptoms of disease. Here, *upashaya ahara, pitta vardhaka, and kapha samaka*. *Upashaya vihara*: *yoga* like *Surya Namaskar, Pranayama*, jogging, aerobic exercise, cardio exercise, etc. *Anupsaya ahara & vihara*: *vata, kapha, and medo vardhaka*, like stress, anger, sleeping during the day, late - night sleep, etc.

5) SAMPRAPATI CHAKRA:

Kapha - vatacara

Ahar

vihara→*Agnimandhya*→*Amotpattii*→*Srotorodha*→*Dhatvagnimandhya*→*Apachita Rasadhatu*→*Uttarottara Dhatu* *Apachana* leading to *rasa - dhatu dusti* (*Lakshanas - Aartava dushti, beeja dushti*), *rakta - dusti* (*Lakshanas - pidika*), *mamsa - dusti* (*Lakshanas - granthi*), *Medodusthi* (*Lakshana - satistholya*), *asthi - dusti* (*Lakshanas - Atiloma*) etc.

6) Line of treatment for PCOD/PCOS as per Ayurveda

A) *Nidana Parivarjana*.

B) *Panchakarma Therapy (Shodhana Chikitsa)*

C) *Ayurvedic drugs (Shamana chikitsa)*

D) *Yogasanas/vyayam*.

E) *Pathya /Apathya - Ahara*

A) NIDANA PARIVARJANA:

Avoiding the root causes is essential for all diseases, particularly lifestyle conditions. It will facilitate curing and prevent recurrence. Lifestyle changes are a major predisposing factor for PCOS, particularly irregular and unhealthy eating habits, a lack of exercise, mental stress, etc.

B) SHODHAN CHIKITSA:

Samshodhana is indicated as a detoxifying method that not only eliminates waste from the body but also regulates the functioning of the *srotas*. *Shodhana* detoxifies the body through *Adhomarga* or *Urdhwamarga*, hence clearing obstruction of the *Aartvavaha Srotas*, which is one of the causes of PCOS. Detoxification treatments such as *Vamana, Virechana, and Basti Chikitsa* have been suggested for the treatment of PCOS symptoms. *Vamana* promotes hormonal equilibrium and reduces the tendency to gain weight. *Virechana* eliminates *ama*, which clears minute channels and corrects menstrual irregularities. *Basti* increases fertility and regulates hormonal processes. *Basti* also nourishes reproductive organs and enhances the circulatory system, hence treating *Rasa Dhatu Dushti*.

C) SHAMANA CHIKITSA:

Shamana chikitsa is performed by providing several medications for the vitiating *Doshas*.

Agni Deepana: The treatment approach to PCOS should focus on treating *Agnimandya* at the *jatharagni* and *dhatwagni* levels, reducing *srotovarodham*, and eventually regularizing the *apanavata*, such as *Trikatu, Chitrak*, etc.

Ama pachana—*Ama* is another key cause of PCOD. Thus, *ama pachana* produces a better outcome in the treatment. Example: *Aarogyavardhini vati*.

Kapha nashana - tikshna and *ruksha aushadhi*, also known as *trikatu*, are used to treat obesity in PCOS. For example, *guggulu kalpa*

Lekhana: Because there is *kapha - dosha* dominance and *ama - causing strotorodha*, *lekhan* therapy is recommended.

Vata kapha hara chikitsa: To cleanse the *avarana* and promote normal follicular genesis and ovulation utilizing *Varunadi Kwatha* and *Dashmool Kwatha*.

Classical Ayurvedic treatments for PCOS include:

- *Nashtapushpantaka Rasa*
- *Kanchnara Guggulu*
- *Shatavari choorna*
- *Satapushpa choorna*
- *Rajah Pravartani Vati*
- *Aaroghyavardhini vati*
- Chandraprabha vati
- Dashamularishta

Nashtapushpantaka Rasa: *Nashtapushpantaka Rasa* can be given in cases of *nastapushpa*, which might be amenorrhea or anovulation. It contains mineral medications with qualities such as *Rasayana*, *Yogavahi*, *Aartava Janana*, *Tridosha Hara*, and *Kapha Vata Shamaka*.

It also serves as *anulomaka*, *vajikara*, *yonivyapadahara*, and *raktashodhaka*. Drugs contain chemical components with hypolipidemic, hypoglycaemia, folliculogenesis, antioxidant, and hepatoprotective properties.

Kanchnara Guggulu: *Granthihara*, *vatakaphashamak*, and *aartavajanka* characteristics of *Kanchnaraguggulu* and break down the pathogenesis of *granthi*. The major component in *Kanchnara guggulu* is *Kanchnara* (*Bauhinia variegata*). It effectively treats PCOS through *lekhana*, *deepana*, and *pachana* activity. *Kanchnaraguggulu* contains *katu rasa*, *ushna veerya*, and *katu vipaka*, which reduce the size and formation of numerous cysts in the ovaries, improving ovulation.

Shatavari Churna: *Shatavari Churna* is a traditional *Ayurvedic* medication. It promotes regular ovarian follicle growth, controls the menstrual cycle, and restores the female reproductive system through phytoestrogen, a natural plant-based estrogen. It also helps manage hyperinsulinemia.

Satapushpa Churna: *Satapushpa* seeds are an effective PCOS supplement. They are a good source of phytoestrogens. Fennel's phytoestrogen concentration reduces insulin resistance and inflammation in PCOS. It is claimed to help reduce cellular imbalances that cause metabolic problems in PCOS.

Rajah Pravartani Vati: it is effective in *artavikara*. *Hingu*, *Kumari*, *Tankan* and *Kasisa* are the main ingredients of *Rajah Pravartini Vati*. These are *vata* and *kapha dosha shaman* drugs which increase the *agnayaguna*.

Aaroghyavardhini Vati: *Aaroghyavardhini Vati* affects *rasa* and *rakta dhatu*, promoting "*prasadbhuta raja nirmitee*" (i. e., quality follicular development). It enhances liver activities and increases "*kayagi*" and "*dhatwagni*" secretions, resulting in decreased androgen production. *Kutaki* is a key component of *Arogyavardhini vati*, known for its *pitta virechaka* and subsequent *rakta* and *Artavavaha srotas suddhi* happens.

Chandraprabha vati: This medication was mentioned in *Prameha Chikitsa*. It can help with both *Kapha* and *Vata* *dosa* metabolic problems. It is beneficial in diabetes, tumors, cysts, and other conditions. Almost all medicines have hypoglycemic and hypocholesterolemic effect, which reduces the hyperinsulinemia that is the fundamental cause of the condition.

Dashamularishta: It has been mentioned in the *Sharangadhar Samhita* regarding infertility. It comprises around 50 plants, including *Dashamula*, a set of 10 herb roots. *Vatasaman* mentions its therapeutic benefits. According to *Ayurveda*, *Vata* plays a vital part in the vitiation of all female-related illnesses. *Dashamularishta*, therefore, plays an important part in the suppression of *vata*.

D) YOGA ASANAS IN PCOS

Recommended asanas for PCOS include: -

- *Bharadvajasana* (*Bharadvajasana* twists)
- *Badhakonasana* (*Butterfly* pose).
- *Chakki Chalanasana* (*Mill Churning* Pose).
- *Suptabdhakonasana* (*Reclined Bound Angle*)
- *Shavasana* (*Corpus* posture).
- *Padma Sadhana*.
- A few rounds of *Surya Namaskar* (*Sun Salutation*).

Practicing these *Asanas* can enhance pelvic organ health, including the uterus and ovaries, as well as endocrine gland function.

The science of yoga addresses the core cause of PCOS, which is stress and obesity. Yoga can relieve stress and alleviate symptoms of PCOS.

- 1) Holding weight-bearing positions helps build muscle. Having more muscle mass can reduce insulin resistance, which is important for managing PCOS.
- 2) An energetic yoga practice raises heart rate, offering a cardiovascular exercise and helping in weight reduction.
- 3) *Asanas* and *pranayama* enhance hormonal balance and deep relaxation, calming stressed-out PCOS brains and bodies.
- 4) Improves digestive organ function, addressing PCOS-related digestive issues.

E) PATHYA /APATHYA - AHARA¹⁰ -

Pathya - Ahara - Yava, Amla, Priyangu and *Shali, Shastika* rice.

Apathya - Ahara - Avoid foods like junk food, baked goods, *Abhishyandi aahara* (*Dahi, Udad, Kathal, etc.*), *Madhur Rasa Ahara* (*potatoes, sweets, and chocolates*), etc.

Pathya /Apathya - vihara -

- Follow strictly with *Ritucharya* and *Dincharya*.
- Management of weight.
- *Yogasanas*.

3. Discussion

Unnamed disease *Dosha* and *Dushya* should be understood and treated accordingly. PCOS can not be correlated with single disease, few disease condition can be taken with similar signs and symptoms of PCOS.

They are,

Artava kshaya¹¹ - *Yadhoচিতakala, adarshana*, delayed menstruation, and *alpata*. *Alpata* - scanty menstrual flow is one of the signs and symptoms of *arthava kshaya*.

Nashtartava¹² - *Aavarana* of *dosha* in *artava marga*, which leads to destruction of *arthava* and manifests as ovulatory and menstrual disturbances.

Pushpaghni jathaharini¹³ - Described under *jataharninis* by *Acharya kashyapa*, which means destruction of *artava*.

Granthi¹⁴ - Vitiated *tridosha* leads to vitiation in *mamsa, medo dhatu* to manifest *vrutta unnata, vibratithasopha* inside the ovaries.

Vandhya yoni vyapat¹⁵ - A condition in which there is *nastartava*, which is characterized by both anovulation and amenorrhea.

Rasavaha sroto dusti¹⁶ - *Kapha prakopakara ahara - vihara* cause *Rasavaha sroto dusti*, which leads to *artava (upadhatu) and uttarothara dhatu*.

Medovahasroto dusti¹⁷ - Manifestation of *Prameha - poorvarupa* like *Atisthoulyata* and *Garnthiudbhava*, which is seen in PCOS also. PCOS is found to be *vata kapha vyadhi*, along with the involvement of *agni, rasa, rakta, mamsa, meda, asthi dhatu*, and *arthava sroto dusti lakshana*.

Possible method of action of Panchkarma in PCOS:

Vamana is highly efficient at removing vitiated *Kapha*. It is generally understood that *Kapha* aggravation may lead to obesity, which can then initiate the pathogenesis of PCOS; hence, pacifying *Kapha* using *Vamana* can help to restrict the advancement of PCOS. Also, *Vamana* acts on the thyroid and stimulates the pancreas, therefore maintaining normal hormone levels and decreasing the risk of PCOS.

Virechana removes toxins, controls *Pitta* vitiation, and maintains the functioning of the hormonal system, hence helping in the management of disorders caused by hormonal imbalance.

Basti increases the quality of *Artava* by controlling *Apan Vayu*, which regulates menstruation, prevents dysmenorrhea, clears *Artava Vaha Srotas*, and decreases PCOS - related symptoms. *Basti* reduces obstructions in the way of *Vata dosha*, therefore reducing the pathogenic severity of female genital problems.

Possible method of action of Ayurvedic medicines in PCOS:

Ayurvedic medications have *vatashamaka* and *srotoshodhana* effects, as well as *Gulmahara* and *Granthihara* qualities. These medications reduce the size of the cyst and restrict its development due to their *Lekhana* and *Bhedana Guna*. Similarly, Ayurvedic medications such as *Laghu Guna, Tikta Rasa*, and *Ushna Virya* help to regulate *Kapha* and *Medha*, relieving symptoms of an ovarian cyst. *Kapha Medohara, Tridoshashamaka*, and *Vedana Sthapana*, and some, have properties that limit the development of cysts caused by *Dosha* vitiation. *Ruksha Guna Dravya* inhibits excessive cell development, which restricts the creation of ovarian cysts.¹⁷⁻²¹

4. Conclusion

In *Ayurveda*, direct correlation was not found in classical texts; hence, the *samprapti* or etiopathogenesis of PCOS in

Ayurvedic terms is postulated, and an attempt has been made to understand PCOS, which is caused by the vitiation of *vata* and *kapha dosha*. Among all *dhatus, mamsa* and *medas dhatu* show more vitiation in PCOS. Signs and symptoms can be correlated with *anartva, nashtava, aatava kshaya*, and *vandhya yonivyapat*. Possible line of treatment in PCOD/PCOS - Potentiating *Agni* to increase nutritional supply Correction of aggravated *Dosha*, particularly *Kapha* and *Vata*. Correction of *Aartava Dhatu Dushti*, or menstrual abnormalities. Correction of *Meda Dhatu Dushti* to minimize excessive weight deposition. Remove *Ama* to eliminate the obstruction of *Srotas Dushti*.

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