

A Brief Review of PCOD And It's Management According to Ayurveda and Modern

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Abstract—The most delicate, complicated, and magnificent creation of God for mankind is the woman, who is as beautiful as nature. A girl's life becomes more complete when she matures into a woman and becomes a mother. In contrast to men, women are more susceptible to illnesses that affect their reproductive systems. POLYCYSTIC OVARIAN DISEASE (PCOD) is one of such illness. A condition known as PCOD is linked to ovarian cystic abnormalities. The follicles originate from primordial follicles, but due to disrupted ovarian function, the development halts at an early antral stage. PCOD shows up clinically in a variety of ways. Amenorrhoea/Oligomenorrhoea, Hirsutism, Alopecia, Acne, and Acanthosis nigricans. The primary disease that causes the majority of the alterations in PCOD is anovulatory. In Ayurveda, PCOD is treated as Rasa Medo Dhatu Vikar and must be controlled. This ailment and a few others in Ayurveda, including Yoni Vyapad, Puspghani Jataharini, Nashtartav, and Aartavadushti, share several characteristics. In Ayurveda, the specific or precise illness is not explained. It involves a Dosh, Dhatu, and Updhatu imbalance, which means that various variables operating at various levels are implicated. Therefore, following Dincharya & Ritucharya, Nidaan Parivarjana, Samshodhana Aaganeya, & Artavajanan Dravyas is a potential course of treatment. With the use of different Ayurvedic herbal and mineral formulations, Panchakarma, together with dietary and lifestyle changes, we can design Ayurvedic treatment. which can be carefully applied in order to treat PCOS/PCOD and any related issues.

Index Terms—PCOD, Artavakshava, Nidaan Parivarjan, Dincharya & Ritucharya, Hirsutism, Anovulation.

I. INTRODUCTION

The most delicate, complicated, and highest act of creativity by God to mankind is the woman, who is as lovely as nature. Her tremendous physical and mental vigour enable her to succeed in both her personal and professional lives. The hallmark of women is her singular ability to reach menarche and retain a fertile age all the way to menopause. A girl's life becomes more complete when she matures into a woman and becomes a mother.

A woman should exercise extreme caution since it is likely that the fragility of that priceless womanhood is in danger at this point. In contrast to men, women are more susceptible to illnesses that affect their reproductive systems. Some of these conditions may be straightforward and treatable with straightforward medicine, while others may require long-term therapy. They might also get a woman into a lot of trouble. POLYCYSTIC OVARIAN DISEASE (PCOD) is one such illness.

The American gynecologists Irving F. Stein and Michael

L. Leventhal, who gave the disorder its original name of Stein-Leventhal syndrome, originally characterised it in 1935. In 1721, an Italian physician wrote the first account of a patient who had what is today known as PCOS. In 1844, modifications to the ovaries brought on by cysts were described.^[1]

The numerous ovarian cysts that are a common. ultrasound finding and indicate immature follicles are how the disease got its name. The follicles have evolved from primordial follicles, but because of

disrupted ovarian function, the development has halted at an early antral stage. On ultrasound imaging, the follicles may be positioned along the ovarian periphery and look as a "string of pearls, in USG "[2]

The Androgen Excess PCOS Society proposed tightening the diagnostic criteria in 2006 to include all of the following: excess androgen activity, oligo- or Anovulation, polycystic ovaries, and other entities are excluded that would cause excess androgen activity.^[3] It is considered to be the most common endocrine issue among women of reproductive age and one of the main reasons of female subfertility.^[4]

II. AIM AND OBJECTIVES

- To understand the pathology of polycystic ovarian disease in Ayurveda
- To evolve the Management Principles.
- To enlist certain Ayurvedic drugs that would be beneficial in the management of the polycystic disease.

III. MATERIALS AND METHODS

Various Samhita, modern medical text books and websites.

The following are some of the risk factors for PCOS^[5]

- Genetic components
- A PCOS family history
- Maternal congenital adrenal hyperplasia
- Androgen-secreting tumours.
- Low birth weight/small for gestational age
- Premature adrenarche are all signs of high levels of androgen in the mother during pregnancy.

Endocrinological factors include

- Obesity
- Insulin resistance
- The onset of type 1 diabetes mellitus before menarche.
- Medicines such as anti-epileptic medications like valproate.

Clinical features of polycystic ovary syndrome ^[6]

- Oligomenorrhea/amenorrhea

- Infertility/first trimester miscarriage
- Obesity
- Hirsutism
- Acne
- Acanthosis nigricans
- Male pattern alopecia
- Anovulation is the major pathology that is responsible for various changes in PCOD.

Pathology

Gonadotrophin-releasing hormone (GnRH) levels are higher in PCOS patients, which causes the LH/FSH ratio in PCOS-affected females to rise. The majority of PCOS patients are obese or have insulin resistance. Their increased insulin levels either contribute to or are the root cause of the PCOS-causing anomalies in the hypothalamic-pituitary-ovarian axis, higher ovarian androgen production, LH over FSH dominance, higher GnRH pulse frequency, decreased follicular maturation, and decreased SHBG binding are all effects of hyperinsulinemia. These elements all play a role in the emergence of PCOS.^[7,8]

IV. INVESTIGATIONS

Laboratory tests

Serum androgen levels, such as those of androstenedione and testosterone, may be increased.

1. Levels of DHEA-S (dehydroepiandrosterone sulphate) exceeding 700-800 mcg/dL. are strongly suggestive of adrenal impairment. The greatest indicator is regarded to be the free testosterone level, with roughly 60% of PCOS patients showing high levels^[9]

2. When measured on day 3 of the menstrual cycle ^[10], the ratio of luteinizing hormone to follicle stimulating hormone is greater than 1:1 (and occasionally more than 3:1).

3. Fasting lipid profile and biochemical screening. ^[11]

4. In individuals with risk factors (obesity, family history, history of gestational diabetes), a two-hour oral glucose tolerance test (GTT) may reveal poor glucose tolerance (insulin resistance) in PCOS patients. ^[12]

5. Fasting insulin level, commonly known as GTT with insulin levels (IGTT): Elevated insulin levels may identify patients who will need greater doses of metformin or the usage of a second medicine to

decrease insulin levels. Elevated insulin levels have proved useful in predicting response to treatment. Insulin resistance is consistent with a hypoglycemic response in which the blood sugar is lower than fasting and the two-hour insulin level is higher. [13]

Ultra-sonography

It looks for small ovarian follicles. According to the Rotterdam criteria, 12 or more small follicles should be seen in an ovary on ultrasound examination. The numerous follicles contribute to the increased size of the ovaries that is 1.5 to 3 times larger than normal. [14]

Differential Diagnosis of PCOS

Other conditions such as hypothyroidism, congenital adrenal hyperplasia (21-hydroxylase deficiency), Cushing's syndrome, hyperprolactinemia, androgen-secreting neoplasms, and other pituitary or adrenal problems should be looked into in order to rule out alternative reasons of irregular or absent menstruation and hirsutism. Other insulin-resistant conditions, such as acromegaly, have been linked to PCOS. PCOD is syndrome as opposed to a disease. Obesity, Type II Diabetes, and infertility are some of the problems. [15]

Ayurvedic view point

1. The goal of Ayurveda is to keep the body's humoral processes all functioning normally. All of the body's metabolic, neurological, and hormonal processes are included in the functions of Kayagni, Bhutagni, and Dhatvagni. As a result, Ayurveda emphasises maintaining healthy Agni as a key element in the management of many disorders.

2. Mandagni is the end result of Kapha Vardhaka Ahara and Vihara. Ama is created as a result of this Mandagni. The Rasa Dhatu is first vitiated by Kapha and Ama. The Artava is vitiated since it is the Upadhatu of Rasa Dhatu. In the Artava vaha srotas, the vitiated Kapha and Ama clog the Artava, which results in Anartava (amenorrhoea) or Alpa artava (oligomenorrhoea).

3. Aggravated Kapha and Ama having vitiated Rasadhatu moves towards Medodhatu as Kapha, Ama and Medas have similar qualities. Hence they are attracted to each other. Medo dhatu is one of the first Dhatus along with Rasa Dhatu to reflect a Kapha aggravation

4. Medovridhi (obesity) is a result of elevated Kapha and Ama having an impact on Medodhatvagni. Due to this, Medo vikaras emerge as Granthi (cysts), Pramcha (diabetes), and Medo rogu (fat).

Samprapti Ghatakas

- Doshas-Kapha, Vata & Pitta
- Dushyaas Rasa-Medo-Artava
- Srotas-Rasa-Medo-Artava
- Sroto Dusti -Granthi & Sangam
- Vyadhi Adhistanam-Garbhashaya

Samprapti Chakra

Samprapti Mainly Sanga and Vimargagamana can be taken. Kaphamedakara Ahara Vihara → Agnimandhya → Amotpathi → Srotorodha → Dhatvagnimandhya → Apachita Rasadhatu → Uttorottara Dhatu Apachana leading to Medodusthi and Alpartava like Lakshanas are seen.

Roopa

We can correlate some of the Lakshanas explained under following disorders.

- Rajakshianata-Yathochita Kala Adarshana Regular menstruation and scanty menstruation (Alapata)
- Nastharatava Artava Nasha due to Avrutamarga, here Acharya Dalhana says on Acharya Stushruta verse that Nastha means Na Tu Sarvatha Kahaya (not fully lost), it is merely reduced in amount therefore its Apravartamana (unable to speak out). Samhita Artava word is frequently used in reference to menstrual blood, ovaries, and ovarian hormones; hence, it can be interpreted in terms of oligo/anovulation, oligomenorrhoea, and shorter flow duration
- Vandhya In Nasthartava, Vandhya is referred to as the patient who is experiencing infertility due to anovulatory cycles and hormonal imbalance.
- Pushpghani Jatharini With this in mind, might be seen as a female whose menstrual flow is regular but whose cycle lacks ovulation. It causes cheeks to become involuted and hairy, which are PCOS comorbidities. Since 30% of women with PCOS experience regular menstruation, this problem is common among PCOS patients.

Nidana Parivarjana

Avoid the disease-causing elements, such as junk food, cold drinks, a sedentary lifestyle, etc.

Ahara

One should eat healthily and adhere to the Aharavidhi Vidhanas (dietetics' norms), according to. In the case of Arthava Kshaya such as Masha, Tila, Kulath, Matsya, Udvisa, Dadhi, and Sura, which will aid to increase the Agneyatwa of Artava, Acharya Sushruta has mentioned the Agneya Dravya Prayoga. [24]

Vihara

By adhering to the Dincharya (daily regimen), Ritucharya (seasonal regimen), Rajaswala Paricharya (menstrual regimen). Swasthavrittu (code of conduct, Achara Rasayana, etc., one can achieve Dhatusanya (homeostasis) in the body.

Ayurvedic Management

- Aama Chikitsa
- Vatakapha Hara Dravyax
- Sodhana
- Shamana

Aama Chikitsa: [16]

- "Pachanair deepanai snehaistaan seedaischa parishkratan

Sodhayeth sodhanaih kale yadhaasannam yadha balam”

- Deepana and pachana drugs as chitrakadi vati hasto be given. Snehana, Swedana and then Sodhana according to the bala of the patient has to be done.

VATAKAPHA-HARA DRAVYA

- Apamarga: Deepana. Pachana and kapha medo anilaapaha. [17]
- Karanja: Deepana, Pachana, Vatakaphahara and especially Yonidoshahrit. [18]
- Jeeraka & Krishna jeeraka: Deepana Pachana, Vatakaphahara and Garbhasaya visuddha krit [19]
- Guggulu: Deepana, Amahara, Kaphavatahara, Medohara, Pramehahara, Granthihara [20]

Shamana Chikitsa

- Kalyana ghritam: swalpa rajasi (oligomenorrhoea). Pramehahara and Pumsavaneshucha [21]
- Pushyanuga churnam: Yoni dosha hara, Rajodoshha hara. [22]

Shodhana Chikitsa

- Uttara basti with Dhanvantara taila will be beneficial. [23]
- Vamana-Virechana Karma-Acharya Sushruta said that Kshaya Samshodhana should be performed in Artava, then Aagneya Dravya should be used. According to Acharya Dalhana, Virechana Karma should not be utilized for purification; only Vamana Karma should. Due to the fact that Virechana Karma decreases Pitto, which in turn causes a decrease in Agneyatwa of Artava, which ultimately results in Artava Kshaya. [25] The removal of Saumaya (Kapha) substance by Vamana Karma causes a proportionate rise in the hody's Aagneya element, which raises Artava. According to Acharya Chakrapani, the upward and downward channels are cleansed by the application of Vamana Karma (emesis) and Virechana Karma (purgation), respectively. Therefore, both treatments can be carried out as necessary. In obese women with PCOS, Vamana helps to promote metabolism and hence reduce weight, which can then improve androgen circulation, glucose levels, and ovulation support. This increases the likelihood of conception. [26]

V. CONCLUSION

Therefore, PCOD can be viewed as Rasa Medo Dhatu Vikara in Ayurveda and must be controlled according to the Dosha Dushya vitiation. Numerous medicines that can treat this ailment more naturally available in Ayurveda. Ama is relieved by Deepana and Pachana medicines, also known as Chitrakadi Vati. This improves the patient's ability to digest food, which is the first step in managing PCOD. The property of Vata Kaphahara and Medohara Dravyas aids in controlling the Apanavata and keeping Medodatu Vikrutis like Granthi, Prameha, and Sthoulya in check. In cases of oligomenorrhoea, Kalyana ghrita and Pushyanuga churnam are helpful. The main causes of PCOS, a developing complex endocrinological illness, are sedentary lifestyle changes, poor eating habits, and failure to adhere to the regimens recommended by Desha, Kala, and Rutu. Lack of exercise, improperly observing the menstrual schedule (Rajaswala Paricharya), etc. When using modern medicine, such as hormonal

tablets, clomiphene citrate, antiandrogens, etc., patients must deal with side effects include weight gain, drug reactions, headaches, and thrombosis risk^[27] among others. Although PCOS is not specifically mentioned in Ayurveda, it can be related to certain diseases like Vandhya, Nasthartava, Aratava Kshaya, Pushpaghni Jataharini, etc. By taking into consideration the specific Sroto Dushti, Avarodha^[28], Agni, Ama, etc., we can choose the appropriate Shodhana and treatment.

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