

**EFFECT OF RASAYANA IN FEMALE INFERTILITY W.S.R. TO PCOS - A REVIEW ARTICLE****Bharati Patel<sup>1</sup>, Niveditha Somalapur<sup>2</sup>, Ashok Kumar Patel<sup>3</sup>**

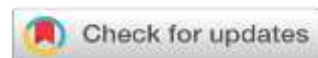
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**Article Received:** 31/12/2022 - **Peer Reviewed:** 13/01/2023 - **Accepted for Publication:** 19/01/2023**ABSTRACT**

Polycystic ovarian syndrome (PCOS) is the most common, yet complex endocrine disorder affecting women in their reproductive years and is a leading cause of infertility. The prevalence of PCOS is increasing with most women impacted falling in the 20-30 years age group which is estimated to be 5-10% of women in the general population who are undergoing nutritional transitions due to westernized diets and lifestyle. The pathophysiology of PCOS involves multi-systemic dysfunction, namely reproduction, endocrine, and metabolic. The symptoms of PCOS vary from person to person. They could range from irregular menstruation, hirsutism, obesity, and hair loss in some cases and long term can lead to complications. This syndrome cannot be included under any particular condition in specific and can be correlated in Ayurveda with Arta-vakshaya, Anartava, and Pushpaghni-jataharini based on its lakshanas, which are Vata-kapha pradhana rasa pradoshaja vyadhi. In this condition adopting Vata-kaphahara and Pitta vridhikara ahara-vihara, proper Shodhana, and Rasayana karma along with lifestyle modification can control the onset and further progression of the disease. So, in the present context, an attempt is made to explain the effect of Rasayana in female infertility w.s.r to PCOS.

**Keywords:** PCOS, Artavakshaya, Anartava, Pushpaghni-jataharani, Rasayana.

## INTRODUCTION

Polycystic ovarian syndrome (PCOS) is the most common endocrinopathy in women in their reproductive age and is a leading cause of infertility. The prevalence of PCOS is more in the 20-30 years age group.<sup>1</sup> In India 1 in 5 women are affected with PCOS. It is estimated that 5-10% of women in the general population are affected are undergoing nutritional transitions due to westernized diets and lifestyles. It is characterized by a combination of hyper- androgenism either clinical or biochemical, chronic anovulation, and polycystic ovaries, and it is frequently associated with insulin resistance and obesity. The syndrome has gained much attention as a result of its high prevalence, and possible metabolic, reproductive, and cardiovascular disturbances. Despite that several aspect of PCOS remains unclear, in the deficit of solid evidence, the underlying pathogenic mechanism is not understood fully, the clinical manifestations may be diverse among the patients or evolve over time and the long-term consequences are not clarified conclusively. It is the best-known and most extensively studied the cause of anovulatory infertility in reproductive-aged women. As per Ayurvedic parlance, this syndrome cannot be included under any particular condition in specific and can be correlated with Artavakshaya, Anartava, and Pushpaghni-jataharini based on its lakshanas, which are Vata-kapha pradhana rasa pradoshaja vyadhi. In this condition adopting Vata-kaphahara and pitta vridhikara Ahara-vihara, proper Shodhana, and Rasayana karma along with lifestyle

### Pathogenesis of PCOS

Abnormal feedback mechanism in the HPO axis



Causes excess LH: FSH ratio leading to increased production of androgens from the ovary



modification can control the onset and further progression of the disease.

### Poly cystic Ovarian Syndrome<sup>2</sup>

This is a heterogeneous disorder, clinically characterized by ovulatory failure, hirsutism, obesity, glucose intolerance, resistance to insulin, dyslipidemia, and infertility. The ovaries are enlarged, multicystic, and show hyperplastic theca cells around the cysts. Only very small amounts of estradiol are produced by the immature follicles.

Excessive amounts of androgens are produced by the hyperplastic theca cells and stromal cells. The 3 key features of PCOS are

- Oligo or anovulation
- Hyperandrogenesis
- Polycystic ovaries with the exclusion of related disorders.

### Aetiology:

The exact cause is unknown, and it can be due to

- Hormonal imbalance
- Genetic factors.
- Stress and psychological factors
- Sedentary lifestyle

The main biochemical abnormality in PCOS is hyperinsulinemia secondary to insulin resistance. This leads to ovarian overproduction of testosterone, and adrenal overproduction of DHEAS and androstenedione. Increased testosterone affects the pituitary ovarian axis leading to a decrease in the production of estrogen, abnormal production of progesterone, and over production of testosterone, LH, and FSH.

This leads to the bursting of egg follicle from the ovary and this undischarged egg follicle becomes a cyst



This process gets repeated during every menstrual cycle



Multiple cysts get collected resulting in PCOS

### How PCOS is Affecting Fertility?

- Fertility problems may be related to elevated hormones, insulin, or glucose levels.
- All these can interfere with implantation as well as the development of the embryo.
- Increased LH reduces the chances of conception and increases miscarriages.
- Abnormal insulin levels may contribute to poor egg quality making conception more difficult.

The samprapti can be proposed in the following manner.

Nidana sevana → Agnimandya → Rasadusti

Artava dushti



- ❖ Artava chakra aniyamitata (Menstruation does not appear in proper time or delayed menstruation)
- ❖ Alpartava (deficiency or loss of artava)
- ❖ Yonishoola (Pain in yoni pradesha)
- ❖ Women get their menstruation but do not conceive (Anovulatory cycles)
- ❖ Sthula lomasha gandaye, obesity, and hirsutism
- ❖ Artavavaha srotorodha by vata and kapha so artava pravrutti doesn't occur monthly

PCOS

**Ayurveda View on PCOS:** This syndrome cannot be included under any particular condition in specific and can be correlated with Artava kshaya, Anartava, and Pushpaghni-jataharini, based on its lakshanas, which are Vata-kapha pradhana rasa pradoshaja vyadhi Here, avarana samprapti of rasa, meda, vata and artava with beejopaghata are the major causative factors involved.

Kapha dushti



Shrotorodha



Vataprakopa & Medo vridhhi



Sthaulya

### Pushpaghni-jataharini<sup>3</sup>

Pushpaghni-jataharini refers to the destruction of the ovum. It presents typical clinical features that include:

- ✓ Vruthapushpam – the destruction of pushpa
- ✓ Yathakalmprapashyati – menstruating regularly
- ✓ Sthoola –obesity and
- ✓ Lomasha ganda – hairy chin and cheeks

Hence, Pushpaghni-jataharini can be defined as a condition where in even though the woman menstruates regularly but she is associated with anovulation, along with other features of Obesity and Hirsutism.

### Artavakshaya<sup>4</sup>

The lakshanas of artavakshaya are as follows:

- ✓ Yathochitakalam adarshanam - the menstruation does not appear at its appropriate time or is delayed or inter menstrual period is prolonged
- ✓ Alpata – the quantity of the menstrual flow is reduced or scanty
- ✓ Yoni vedana – it is associated with pain

### Anartava<sup>5</sup>

Anartava is a condition characterized by the features which include:

- ✓ Vata-kaphavruta – Vata and kapha dosh as causing avarana
- ✓ Marganam – here refers to the Artavavaha Srotas
- ✓ Apravrutanam – not being discharged

The aggravated Vata and Kapha Doshas obstruct the passage or orifices of channels carrying Artava or Artavavaha srotasa, and thus Artava is not discharged.

### Shodhana Chikitsa

The Artava kshaya should be treated by the use of purifying measures and agneya dravyas. Dalhana says that for purification, only Vamana should be used not the Virechana, because Virechana reduces pitta which in turn decreases artava while Vamana removes saumya bhavas, resulting in a relative increase in Agneya constituents of the body, conse-

quently artava also increases. Chakrapani says that by use of purifying measures, srotasa were cleared.<sup>6</sup>

- Vamana: In the case of avarana samprapti and artava vyapat due to srotorodha and kapha dushti (menstrual irregularities, obesity, insulin resistance)
- Virechana : In rasa, rakta, artava and pitta dushti lakshanas (hyperandrogenism)
- Vasti: In vata dushti, beeja dosha sambandhi vandhyatwa (oligo ovulation, anovulation, and inefficient ovulation)
- Uttaravasti : Grabhashaya Shodhana & Tarpana
- Nasya: To correct the HPO axis

### Rasayana Chikitsa

After shodhana, rasayana chikitsa should be adopted.

- Rasayana chikitsa aims at proper nourishment of sapta dhatus
- It is beneficial not only for enhancing longevity, intellect, physical and mental strength, and reproductive wellbeing but also for the alleviation of disease.<sup>7</sup>
- Among the types of rasayana – Naimitika rasayana, Achara rasayana and Ajasrika rasayana holds good for the management of female infertility.
- The administration of rasayana, especially the ghrita shows a miraculous result as it crosses the blood-brain barrier.

### Benefits of Rasayana in PCOS

- Rasayanas help in the normalization of endocrine secretions and leads to hormonal balance, and check mood swings and psychological symptoms.
- Helps in follicular oogenesis, hypoglycemia, and hyperlipidemia.
- Removal of cysts and corrects ovulatory function
- Reduces androgens and adjuvant therapy for hirsutism.

## RASAYANAYOGAS<sup>8-20</sup>

RASAYANA	Mode of action on PCOS
Medhyarasyana Kalyanaka ghritam Skumara ghritam Brahmighritam	Normalization of endocrine secretions and leads to hormonal balance checks mood swings & psychological symptoms.
Phala ghritam	Corrects hormonal imbalances
Brihatsaindhavadi Ghritam	Regulates the menstrual cycle, well known for its restorative properties of ovarian follicles. Corrects hyper insulinaemia.
Shatpushpa -Shatavari Kalpa	Enhances follicular maturity Corrects menstrual irregularity.
Shitakalyanaka ghritam	Useful in scanty menstruation, Promotes garbha dharana.
Nashtapushpantaka rasa	Helps to remove a blockage in the channels & works on polycystic ovaries due to Kaphanashaka & Granthihara property.
Chandraprabha vati	Maintains improper and painful menstrual flow. Act as Kaphahara & helps to the removal of cysts and corrects ovulatory function.
Triphala Rasayana	Increases the movement of Apanavata, detoxify the doshas, helpful in weight management.
Shilajatu Rasayana	Regulates hormones, reduction of cystic follicles, maturation of ovarian follicles & decreases the increased ovarian & uterine weight.
Rasona Shatavari Shatapushpa	Correct hormonal influence & enhance follicular maturity
Ashwagandha	Corrects menstrual irregularities, controls mood swings, Natural energizer, and helps the body to adapt to internal & external stress.

## DISCUSSION

- PCOS treatments mainly focused on the different developmental conditions in the ovary and normalizing its functions
- Shodhana followed by rasayana help in regulating the menstrual cycles, stimulates ovulation, insulin resistance, hyper androgenism, and obesity associated with PCOS
- The mentioned rasayanas have multi potential and beneficial effects in oligomenorrhea, amenorrhea, obesity, etc.

## CONCLUSION

Rasayana plays a very important role in the preventive measures for the manifestation of symptoms of PCOS which is one of the important challenging aspects in the medical practice. In conditions of PCOS irrespective of the age groups Rasayana after Shodhana benefits in improving different elevated levels

of a hormone that are affected due to different conditions. Basic education followed by a proper lifestyle benefiting in the due course of treatment in treating the symptoms of infertility is a major challenge. Rasayana with the combined effect of Shodhana helps in regulating menstrual irregularities followed by stimulating ovulation, insulin resistance, hyperandrogenism, and obesity associated with PCOS. Hence Rasayana with Shodhana provides excellent results in providing a long-term solution to infertility patients.

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