



Case Study

AYURVEDIC APPROACH TO MANAGE PCOS RELATED PRIMARY INFERTILITY: A CASE STUDY

Susheela Choudhary^{1*}, Khushboo Jha², B. Pushpalatha^{3,4}, K. Bharathi⁵

¹Phd. Scholar, ²PG Scholar, ³Associate Professor, ⁵Professor, Department of Prasuti Tantra Evam Stri Roga, National Institute of Ayurveda, Amer Road, Jaipur, Rajasthan, India.

⁴Ph.D Scholar, Tilak Maharashtra Vidyapeeth, Pune, Maharashtra, India.

ABSTRACT

Infertility is defined as when a couple failed to conceive within one or more years of regular unprotected coitus. Primary infertility denotes those patients who have never conceived. Secondary infertility denotes previous pregnancy but failure to conceive subsequently. 80% of the couples achieve conception if they so desire, within one year of having regular intercourse with adequate frequency. Another 10% will achieve the objective by the end of second year. As such, 10% remain infertile by the end of second year. Now days, PCOS is one of the most common cause of infertility in women. In PCOS the hormonal imbalance interferes with the development and release of ovum from the ovaries. PCOS manifested by amenorrhoea, hirsutism and obesity associated with enlarged polycystic ovaries. PCOS is characterised by excessive androgen production by ovaries and adrenals which interferes with growth of the ovarian follicles. Therefore PCOS is a state of androgen excess and chronic anovulation. A 27 years old female visited OPD of PTSR NIA with complaints of wants issue since two years. After thorough examination, she was diagnosed as PCOS in Ultrasonography. At first, medicine for withdrawal bleeding was given. Then *Shatapushpa churna* and *Phalasarpī* was given for two months and then after she was conceived.

KEYWORDS: Infertility, PCOS, *Shatapushpa Churna*, *Phalasarpī*.

INTRODUCTION

Polycystic ovary syndrome (PCOS) is a complex condition characterized by elevated androgen levels, menstrual irregularities, and/or small cysts on one or both ovaries.^[1] The disorder can be morphological (polycystic ovaries) or predominantly biochemical (hyperandrogenemia). Hyperandrogenism, a clinical hallmark of PCOS, can cause inhibition of follicular development, anovulation and menstrual changes.^[2] Prevalence of PCOS in India ranges from 3.7 to 22.5 percent depending on the population studied and the criteria used for diagnosis.^[3] Oligo-anovulation due to ovarian dysfunction continues to be the pivotal feature that makes this syndrome the major cause of anovulatory infertility in developed countries.^[4] The European Society for Human Reproduction and the American Society of Reproductive Medicine or Rotterdam criteria 2003 are the agreed international diagnostic criteria for PCOS. Hyperandrogenism clinically (hirsutism)/or biochemically (elevated serum testosterone concentrations), anovulation/or oligomenorrhea (cycles of 35 days or longer), or amenorrhea (no menses in the last 6 months) after negative screening pregnancy test and/or polycystic

ovary are the three main diagnostic criteria, and two out of these three confirm the diagnosis, with exclusion of other androgen excess etiologies.

The conditions like thyroid dysfunction and hyperprolactinemia are to be excluded biochemically, while rarer conditions (congenital adrenal hyperplasia, Cushing's syndrome, virilizing tumors, etc.) should be excluded clinically as well as biochemically to confirm the diagnosis of PCOS.^[5] Polycystic ovary syndrome is the most common cause of anovulatory infertility affecting 90 to 95% of Polycystic ovary syndrome is the most common the cause of anovulatory infertility affecting 90 to 95% of women, attending infertility clinics. Hirsutism and hyperandrogenism in PCOS occur in 60% of women and result from increased synthesis and release of ovarian androgens. Insulin resistance occurs in 50 to 80% of PCOS women, primarily in those who are overweight.

Signs and Symptoms of Polycystic Ovary Syndrome

- ✓ Enlarged ovaries with numerous small cysts.
- ✓ Irregular menstrual cycles

- | | |
|---------------|------------------------|
| ✓ Pelvic pain | ✓ Acanthosis nigricans |
| ✓ Hirsutism | ✓ Skin tags |
| ✓ Alopecia | ✓ Infertility |
| ✓ Acne | ✓ HAIR –AN Syndrome |

Diagnostic Tools for Polycystic Ovary Syndrome

NICHD/NIH Criteria (1990)	ESHRE/ASRM Rotterdam Criteria (2003)	Androgen Excess Society (AES) Criteria (2006)
<ul style="list-style-type: none"> • Hyperandrogenism • Oligoovulation/anovulation • Exclusion of other related disorders 	<ul style="list-style-type: none"> • Hyperandrogenism • Oligo-ovulation/anovulation • Polycystic ovaries 	<ul style="list-style-type: none"> • Hyperandrogenism • Oligo ovulation/anovulation • Polycystic ovaries • Exclusion of other related disorders

(NICHD- National Institute of Child Health and Human Development, NIH- National Institutes of Health, ESHRE- European Society of Human Reproduction and Embryology, ASRM- American Society for Reproductive Medicine)

According to Ayurveda, important factors for conception are *Rutu* (fertile period), *Kshetra* (uterus and reproductive organs), *Ambu* (proper nutrient fluid), *Bija* (*Shukra-Shonita*) and normalcy of *Hridya* (psychology)^[6]. In Ayurveda, infertility can be correlated with *Vandhyatva* or with *Vandhya Yonivyapada*. *Acharya Charaka* describe *Vandhyatva* as *Beejadoshaja Vyadhi*^[7] (congenital malformations and deformity of female reproductive system) while *Sushruta* describe *Vandhya* in *Yonivyapada* and considers aggravated *Vata* as a main responsible factor. *Vandhya* is described as women having lost her *Artava* (menstrual fluid) which results in loss of ovulation or sterility.^[8]

In Ayurveda, there is no direct reference about PCOS but when we go through the Ayurvedic literature there are many references which are nearer to sign and symptoms of PCOS. In Ayurveda this condition is not explained as a single disease entity, but given under the headings *Yonivyapada* (genital disorders) and *Artava dushti* (menstrual disorders). The clinical features, etio-pathogenesis can be correlated to different Gynecological disorder. In Ayurveda, all gynecological disorders are incorporated in *Yonivyapads* and *Artavdushti*. Based on these principles PCOS and infertility can be considered as *Rasa*, *Rakta dushti*, *Vata dushti* predominantly, associated *Kapha* or *Pitta dushti* and *Dhatavagnimandya*. As all female reproductive organ lie in pelvic area the *Apan vayu* governs all the physiological functions. So, the management in PCOS should be targeted at *Agni deepan*, *Pachan*, *Vatanuloman* and *Rasaraktraprasadan*.

Case Report: A 27 years old female visited the OPD of Prasuti Tantra and Stree roga, National Institute of Ayurveda, Jaipur on 29/09/2020 with complaints of want issue since 2 years. Other complaints of patient were as follows- white discharge per vagina, weakness and mild backache.

Menstrual History

- Menarche- 13 years
- Duration: 4-5 days/45-60 days
- Irregular cycle, moderate flow, sometimes with clot, mild pain
- 2-3 pads/day

- **Married life-** 3 years
- **Obstetrical history-** Never conceived

Husband Details

History of Husband: Age- 33 years, all reports are normal with good semen Analysis

Past medical history: Patient known case of PCOS since 2 years has taken modern medicines with hormones and ovulation induction for 3 months for same problem.

General Examination

- Pulse – 78/min
- BP - 110/80 mm of hg
- Temperature – 98.6 F
- Respiratory Rate – 16/min
- Height – 155cm
- Weight – 54 kg
- BMI- 22.5

Systemic Examination – WNL

Ashta Vidha Pariksha- *Nadi-* 78/min, *Mala-* once/day, *Mutra-* 5-6 times a day, *Jivha-* Saam *Shabda-* Avishesha *Sparsha-* Sheet, *Druk-* Samanya, *Akruti-* Madhyam.

Dasha Vidha Pariksha- *Prakruti-* Vata *kaphaja*, *Vikruti-* Madhyama, *Bala-* Madhyama, *Sara-* Madhyama, *Samhanana-* Madhyama, *Satmya-* Madhyama, *Satva-* Madhyama, *Pramana-* Madhyama,

Ahara Shakti- Madhyama, Jarana Shakti- Madhyama, Vyayama Shakti- Avara, Vaya- yuvaawastha.

Investigation- USG – 13/01/2020- both ovaries are slightly bigger in size with peripherally placed follicle with central stroma. The case was suggested of PCOD.

Treatment

1st Visit on 29/09/2020
LMP- 8/08/2020
UPT negative on 29/09/2020

Medicines given for withdrawal bleeding for 7 days

- Dashmool kwath* - 20ml BD
- Ajmodadi choorna* – 3gm BD
- Rajahpravatinivati*- 2 tab BD

2nd Visit on 13/10/2020

LMP- 5/10/2020
a) *Shatapushpa churna* – 5gm BD With ghee and milk
b) *Phalasarpi* - 5gm BD with milk
These medicines given for 2 months

3rd Visit on 15/12/2020

LMP- 5/10/2020
UPT found positive on 15/12/2020

RESULTS

After following above treatment, patient's period did not come in next cycle and due to some personal problem patient did not come for follow up but she continued her medicines and her UPT was found positive on 15/12/2020.

DISCUSSION

Patient was advised to take the medicines as per the treatment plan. *Shatapushpa* is having *Katu Rasa, Laghu-Tikshana Guna, Ushan Veerya* and *Pittavardhaka* properties. It is also having *Balya, Deepan- Pachana, Ritupravartini, Yonishukra- vishodhni*^[9] properties and thus it might help in ovulation. *Katu rasa* and *Katuvipaka* which work as *Deepan, Aampachana* and provides proper metabolism and eventually equilibrates the *Agni* which forms healthy *Rasa dhatu* for normal production of *Artava*. *Ruksha* and *Tikshnaguna* have *Srotosodhaka* property. *Shatapushpa* facilitate normal action of *Vata* which stimulate the normal production of *Artava*.^[10]

Due to derangement of *Dhatwagni* PCOS occurred mainly, which occurs metabolic disorders like obesity, dyslipidaemia etc and also leads to hormonal disorders. According to Ayurveda, the food digested by the *Pachakagni* further digested by

Dhatwagni mainly at liver for proper assimilation in the body. *Rajahparavartini vati* contains *Kumari Satwa*, which is a good liver stimulant drug and also acts as *Rajah pravartak* (menstruation). *Dashmool kwatha*, the ingredients of it possesses mainly *Vatashamana* property, whenever there occur *Vatashamana, Artavapravuddhi* occurs, thereby enhancing the *Pitta dosha*. The ingredients of *Ajmodadi churna* has *Ushna, Tikshna* property, thus by increasing the *Pitta*, as there is dominance of *Pitta* then *Artava* will start to flow.

Phalasarpi promotes infertility by providing strength to uterus, as *Phalasarpi* improves the chances of conceiving. According to *Vagbhat, Phalasarpi*^[11] helps the woman to conceive and is best for curing all female genital tract disorders. It is *Balya, Vatahara, Brihaniya, Garbhada* (Fertilization) and *Rasayan*. A study reports suggest that in vivo effect of *Phalasarpi* in female rats significantly increased the serum estradiol level and body weight of rats.^[12] Probably, *Phalasarpi* stimulates the pituitary ovarian axis. This experiment which shows rise in the value of estradiol after administration of *Phalasarpi*, indicates an increased Gonadotropin secretion which regulates the activity of enzymes involved in ovarian steroidogenesis.^[13]

CONCLUSION

According to Ayurveda, PCOS is equated to *Nashtartava*. It is a disorder involving *Vata, Kapha Dosh, Meda, Rasa dhatu* and *Artava upadhatu*. Through understanding the *Lakshanas, Doshic* involvement and *Samprapti*, an effective treatment can be planned which helps in pacification of *Doshas* and *Sampraptivighatana* as *Shatapushpa* pacifies the *Dosha*. Hence, it can be concluded that *Shatapushpa churna* and *Phalasarpi* is effective in the treatment of PCOS as well as aiding in *Vandhyatwa* as well. As *Shatapushpa* and *Phalasarpi* has no side effects and is a better alternative to hormonal therapy. But, to establish his fact, further study for longer duration and on large samples is required.

REFERENCES

- Umland EM, Weinstein LC, Buchanan EM. Menstruation-related disorders. In: Di Piro JT, Talbert RL, Yee GC, et al., editors. *Pharmacotherapy: A Pathophysiologic Approach*. 8th ed. New York: McGraw-Hill; 2011. p. 1393.
- Lin LH, Baracat MC, Gustavo AR, et al. Androgen receptor gene polymorphism and polycystic ovary syndrome. *Int J Gynaecol Obstet*. 2013; 120:115–118.
- Ganie MA, Vasudevan V, Wani IA, Baba MS, Arif T, Rashid A. Epidemiology, pathogenesis, genetics & management of polycystic ovary syndrome in India. *Indian J Med Res* 2019; 150: 333-44.

4. Hamilton – Fairley, Taylor A. ABC of sub fertility: Anovulation. BMJ 2003 Sep; 327 (7414): 546-549
5. Sushmita P Ota et al clinical efficacy of Ayurvedic Formulations Rajahpravartini vati, Varunadi kashaya and Kanchar guggulu in the management of polycystic ovary syndrome: A Prospective, open-label, multicenter Study JRAS April-June 2017; 1 (2): 90-98.
6. Shastri Ambikadutta Susruta Samhita Part I Chaukhamba Sanskrit Sansthan Reprint 2020, Sharirasthana ch. 2 verse 35 p-19.
7. Sastri Kasinatha, Chaturvedi Gorakhnath Caraka Samhita chaukhamba Bharati Academy 2019, Part I Sharirasthana chapter 4 verse 30.
8. Shastri Ambikadutta Susruta Samhita Part II Chaukhamba Bharati Academy Chapter 38 Uttartantra verse 10 P- 203.
9. Sharma Hemaraja Pandit Kasyap Samhita Chaukhamba Sanskrit Sansthan Reprint 2019, Kalpasthana Shatapuspa satavari kalpadhyaya p- 281.
10. Shalinee and Pravesh Tomar Role of Shatapuspa churna in Artavkshaya w.s.r to Hypomenorrhoea and oligomenorrhoea: A review IAMJ: vol 7 Issue 8, Aug. 2019 p-1342.
11. Tiwari Premvati Ayurvediya Prasuti tantra and Stri Roga Part II Chaukhamba Orientalia. Reprint 2014 Chapter Yonivyapad p -78.
12. Muralikumar V, Shivaskar N. Fertility of Ayurvedic medicine (Phalasarpi) in Animal Model, Int. J. Res Ayurveda Pharm 2012; 3 (5): 664-667.
13. Muralikumar V, Shivaskar N. Fertility of Ayurvedic medicine (Phalasarpi) in Animal Model, Int. J. Res Ayurveda Pharm 2012; 3 (5): 664-667.

Cite this article as:

Susheela Choudhary, KhushbooJha, B. Pushpalatha, K. Bharathi. Ayurvedic Approach to Manage PCOS Related Primary Infertility: A Case Study. International Journal of Ayurveda and Pharma Research. 2021;9(1):67-70.

Source of support: Nil, Conflict of interest: None Declared

***Address for correspondence**

Dr Susheela Choudhary

Phd. Scholar,

Department of Prasuti Tantra Evam Stri

Roga, National Institute of Ayurveda,

Amer Road, Jaipur, Rajasthan, India.

Email: choudhary.sush.08@gmail.com

Disclaimer: IJAPR is solely owned by Mahadev Publications - dedicated to publish quality research, while every effort has been taken to verify the accuracy of the content published in our Journal. IJAPR cannot accept any responsibility or liability for the articles content which are published. The views expressed in articles by our contributing authors are not necessarily those of IJAPR editor or editorial board members.