

Ayurvedic management of Polycystic Ovarian Disorder - A case study

Case report

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Abstract

Background: Polycystic ovarian disease (PCOD) is a complex heterogeneous disorder with involvement of endocrinopathies. Ayurveda does not correlate the condition to a single disease or syndrome but the symptoms bears a resemblance to involvement of *Vata* and *Kapha* Doshas. Ayurveda treats Poly Cystic Ovarian Disorder by correcting basic disturbances in metabolism, by restoring ovulation naturally by speeding up growth of follicles. The line of treatment for PCOS patient depends on the body constitution of patient, causative factors and symptoms shown. **Case report:** A 25-years female patient with her husband aged 28 years reported the OPD of Prasuti Tantra evam Streeroga, with the complaints of dysmenorrhoea, scanty menses, delayed menses, acidity, hairfall, and general weakness. Her ultrasonography reports revealed poly cystic like appearance of ovaries. Her menstrual cycle was 2 days/ 45 days, scanty, painful with few clots. Obstetric history was nil. Patient was given *Kuberaksha vati*, *Kalaonji* powder, *Rasapachak kwatha*, *Granthiraja powder*, and *Navayas Churna* for 4 months with followup taken every month. **Result:** After treatment, patients menstrual cycle was set gradually to normal i.e. 28 days. Her interval between menses was reduced. Significant relief was achieved in complaints of dysmenorrhoea and clots. Even her USG findings showed normal appearance of ovaries after treatment. **Conclusion:** This case supports the importance of personalised medication in management of poly cystic disorder. It also emphasizes the significance of *Kuberaksha vati*, *Kalaonji* powder, *Rasapachak kwatha*, *Granthiraja powder*, and *Navayas Churna* in reducing subjective and objective signs and symptoms of Poly Cystic Ovarian Disorder. Further large scale clinic trial can be helpful for drawing further conclusions.

Key Words: *Artava Dushti*, Poly Cystic Ovarian Disorder, *Kuberaksha Vati*, *Granthibhut Artava*, *Rasapachak Kwatha*, *Kalaonji* powder.

Introduction

Polycystic ovarian disease is a complex heterogeneous disorder with involvement of endocrinopathies.(1) It affects 1 in 10 women.(2) It is a condition in which patients have multiple cysts in their ovaries that occur due to disruption in the normal menstrual cycle. (3) Ovaries get enlarged and produce excess amounts of androgen and estrogen. These hormones interfere with the growth and release of the eggs from the ovaries leading to anovulatory cycles and irregular menstruation. Incidence of this disease is increasing nowadays because of sedentary lifestyles, pollution, excessive intake of junk food.(4)

Polycystic ovarian syndrome is a condition where a hormonal imbalance affects follicular growth during the ovarian cycle causing the affected follicles to remain in the ovary. The retained follicle forms into a cyst and with each ovarian cycle a new cyst is formed leading to

multiple ovarian cyst ultrasonic morphologic evidence of ≥ 12 follicles measuring 2.9mm diameter. It is associated with obesity, oligomenorrhoea, anovulation and hyperandrogenism, Hyperinsulinemia (increased level of insulin in the blood is due to sensitivity of cells to insulin) a factor present in the blood stimulates androgen secretion by the ovarian stroma, the connective tissue of ovarian tissue of ovary and reduces serum sex hormone binding globin (SHBG) causing increased levels of free testosterone. Due to the presence of increased androgen in the ovary, the follicle undergoing maturation in the ovarian cycle is affected causing anovulation of particular follicle.(5)

Pathophysiology of PCOS

PCOS presents as a phenotype reflecting a self-perpetuating vicious cycle involving neuroendocrine, metabolic, and ovarian dysfunction. Over the years, numerous hypotheses have been proposed regarding the proximate physiologic origins for PCOS. PCOS reflects the interactions among multiple proteins and genes influenced by epigenetic and environmental factors.(6) Recent clinical, experimental, and genetic data emphasize neuroendocrine involvement in the pathophysiology of PCOS. PCOS is characterized by excessive ovarian and/or adrenal androgen secretion. Intrinsic ovarian factors such as altered steroidogenesis

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and factors external to the ovary. Distorted interactions among the endocrine, paracrine, and autocrine factors responsible for follicular maturation may contribute to ovarian dysregulation in PCOS, such as hyperinsulinemia contribute to the excessive ovarian androgen production. (7)

Ayurvedic perspective of PCOS

Ayurveda does not correlate the condition to a single disease or syndrome but the symptoms bears a resemblance to the terminologies defined as *Anartava-Amenorrhoea*, *Yonivyapad*- anatomical and physiological disorder of the reproductive system like *Arjaska*- oligomenorrhoea due to vitiation of *Vatadosha*, *Lohitakshaya*-oligomenorrhoea due to vitiation of *Vata-Pitta Dosha*, *Vandhya*- Infertility, *Pushpaghni-Revati* -Idiosyncratic anovulatory menstruation, *Abeejata*- anovulation, *Rajodushti* and *Kashtartava Dushti*-Menstrual flow disorder due to vitiation of *Dosha*, *Shandhi Yonivyapad* -Vitiatio n of *Vata*. *Vata* and *Kapha Doshas* as well as *Vishama Ahara* and *Vihara* leads to reduced digestive fire and causes production of *Ama* (undigested food).(8) This *Ama* production causes improper enzymatic reactions leading to incomplete metabolism and hormonal imbalance. This hormonal imbalance causes Hyperinsulinemia and hyperandrogenism ultimately leading to anovulation, amenorrhea /oligomenorrhoea and ovarian abnormalities like polycystic ovaries. If *Aartava* is taken as ovarian hormones, the basic pathology of PCOS in context of *Avarana* by *Dosha* can be understood. This *Avarana* disrupts homeostasis of hypothalamus-Pituitary- Ovarian (HPO) axis causing hormonal imbalance leading to PCOS. (9)

Ayurveda treats Poly Cystic Ovarian Disorder by correcting basic disturbances in metabolism through herbal medicines. Ayurveda brings about ovulation naturally by speeding up growth of follicles. It also dissolves the old immature follicles/ cysts at ovary to bring ovaries at its original size. The line of treatment for PCOS patient depends on the body constitution of patient, causative factors and symptoms shown.(10)

Case report

A 25-years female patient with her husband aged 28 years reported the OPD of *Prasuti Tantra evam Streeroga*, with the complaints of dysmenorrhoea, scanty menses, delayed menses, acidity, hair fall, and general weakness. Her ultrasonography reports revealed poly cystic like appearance of ovaries. Her menstrual cycle was 2 days/ 45 days, scanty, painful with few clots. Obstetric history was nil.

Personal history

Patients bowel movement were satisfactory, with frequency of 1 time/ day, appetite was good, micturition was normal with frequency of 6-7 times/ day, sleep was sound. On general examination her pulse and BP was found to be 68/min and 110/70 mm of Hg respectively. No pallor or edema was found. BMI of patient was 20.2 kg/m². *Prakruti* assessment revealed she was having *Vata Pitta* dominant *Prakruti* and no any relevant findings on systemic examination. As per abdomen examination no any abnormalities were detected. Per speculum examination revealed normal appearance of vagina and cervix. Per vaginal examination revealed normal sized anteverted uterus with free fornices. Cervical motion tenderness was absent.

Table 1: Posology of Treatment given

Time	Drug	Dose	Outcome	USG findings
09/02/2022	<i>Kuberaksha Vati</i>	250 mg BD with luke warm water after meal.	C/o- Dysmenorrhoea, scanty menses, delayed menses, acidity, hairfall, and general weakness. LMP- 23/01/2022, 2days bleeding, dysmenoorhoea present	10/1/22- Patient presented with previously done ultrasonography reports revealing that uterus was normal in size and ovaries were bulky with polycystic appearance.
	<i>Kalajaji powder</i>	2gm BD with luke warm water after meal.		
	<i>Rasapachak Kwatha</i> (combination of <i>Kutajbeej</i> , <i>Patolpatra</i> , <i>kutki</i>)	10-15 ml BD with lukewarm water		
12/03/2022	<i>Kuberaksha Vati</i>	250 mg BD with luke warm water after meal.	LMP- 07/03/2022 (interval of 1 month 15 days) C/o- hair fall and dandruff-persist General weakness- reduced	-
	<i>Kalaunji powder</i>	2gm BD		
	<i>Rasapachak Kwatha</i>	10-15 ml BD with lukewarm water		
21/04/2022	<i>Granthiraja powder</i> (<i>Trikatu</i> , <i>Patha</i> , <i>Gokshura</i> , <i>Indrayava</i>)	2gm BD	LMP- 15/04/2022 (interval of 1 month 7 days) Clots present++	-
	<i>Navayasa loha</i>	250mg BD		
25/05/2022	<i>Kuberaksha Vati</i>	250 mg BD with luke warm water after meal.	LMP- 15/05/2022 (interval of 1 month) Clots- absent, Dysmenorrhoea- reduced	25/5/22- Ultrasonography reports revealed that uterus was normal in size and both ovaries were normal in size, shape and texture.
	<i>Navayasa loha</i>	250mg BD		

Investigation

General examination of patient including complete blood count, urine examination, biochemical and serological examination were within normal limits. Ultrasonography reports revealed that uterus was normal in size and ovaries were bulky with polycystic appearance.

Treatment

Patient's complaints of dysmenorrhoea, scanty menses, delayed menses were indicative of *Artava Dushti*, USG findings also suggested polycystic appearance of ovaries, thus the patient was diagnosed as a case of PCOD. As *Artava* is considered as *Upadhatu* of *Rasa dhatu*, treatment for improving the *Rasadhatwagni*, and ultimately, improving the metabolism of *Rasa Dhatu* was used. At the same time, drugs having *Artavajanana* properties were used. Patient was given the following treatment protocol and the outcome noted was as follows (Table no:1)

Result

Patient was given treatment for 4 months with followup every month. Patients menstrual cycle was set gradually to normal i.e. 28 days. Her interval between menses was reduced. Significant relief was achieved in complaints of dysmenorrhoea and clots. Her USG findings showing polycystic ovary appearance then after treatment altered to normal ovaries. Patient was advised to continue the treatment for 1 month after the normal USG report for prevention of recurrence.

Table 2: Showing the Before and after treatment Ultrasonography reports

BEFORE TREATMENT	AFTER TREATMENT
10/1/22- Ultrasonography reports revealed that uterus was normal in size and ovaries were bulky with polycystic appearance.	25/05/2022- Ultrasonography reports revealed that uterus was normal in size and both ovaries were normal in size, shape and texture.

Discussion

Multiple *Vyadhi Ghatakas* are involved of pathogenesis of Poly Cystic Ovarian Disorder i.e. *Kapha and Vata Dosha, Rasa, Rakta and Meda Dhatu, Artava, Stree Shukra, Artavavaha Srotas, Rasavaha Srotas*. Main steps involved in Ayurvedic treatment of Poly Cystic Ovarian Disorder are detoxification of body, strengthening and revitalizing the female reproductive system and regularizing menstrual cycles, rectifying hormonal imbalance by Ayurvedic medicines and *Panchakarma* procedures.

Probable mode of action of drugs

In this case study, *Kuberaksha vati, Kalaonji powder, Rasapachak kwatha, Granthiraja powder, Navayas Churna* was mainly used. *Kuberaksha vati* is composed of *Latakaranj (Kuberaksha)* 125gm, *Hing (Ghrit Bharjit)* 75mg, *Sunthi(Zingiber officinale Linn)*

125mg, *Kala Namak* (black salt) 75mg and processed in *Bhavana (Lasuna Swaras)*. It is effective in *Udarshoola* (colic pain), *Parinamshoola, Grahani, Atisara, Kashtartava* (dysmenorrhoea) and PCOS.(11) *Kalajaji powder (Nigella sativa)* has a protective effect on ovary of Letrozole induced PCOS by decreasing number of cystic follicles.(12) *Rasapachak* is the best *Deepana-Pachana* drug, it improves metabolism by improving *Rasa Dhatwagni*, thus produces good quality of ovum (*Artava*). (13) *Granthiraja choorna* is mentioned in *Granthibhoota artavadushti* helps to maintain the *Agni* by its *Deepana, Pachana* and *Vatakaphahara* by *Katu Rasa* and *Ushna Virya* and *Pittaprapakopa* was not occurred due to its *Madhura Vipaka*. *Granthiraja* also helped to maintain the proper metabolism in PCOS patients and thereby maintaining the weight.(14) *Navayasa churna* contains *Trimada* and *Lauha Bhasma*. It has liver protecting action, improves insulin metabolism, thus helps for reducing insulin resistance in the body.(15)

Conclusion

Ayurveda believes to find out the specific cause of the disease, inspects the condition of all *Doshas* in the body, and aims to bring equilibrium within the *Doshas*, thus enhances the functioning of body systems. This case supports the importance of Ayurveda principles in management of poly cystic disorder. It also emphasizes the significance of *Kuberaksha vati, Kalajaji powder, Rasapachak kwatha, Granthiraja powder, and Navayas Churna* in reducing subjective and objective signs and symptoms of Poly Cystic Ovarian Disorder. Further large scale clinic trial can be helpful for drawing further conclusions.

Limitation of the study

This treatment was designed keeping in mind the individual constitution of the patient, history and investigation findings. This is mere a case report and further studies with proper research design is necessary for the scientific validation.

Declaration of patient consent

The authors declare that they have obtained consent form from patient for publication of clinical information blinding the identity of individuals.

Conflict of interest: Nil

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