

Outpatient management of PCOS induced infertility through Ayurveda

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Abstract

Polycystic Ovary Syndrome (PCOS) is an endocrine pathology commonly seen in females of reproductive age. Young adults are usually affected soon after hitting puberty. Nearly 15% of the global population is affected by this syndrome and the incidence is progressively increasing due to the present lifestyle and its demands on the human body and psyche. Obesity, infertility, insulin resistance and mental stress are some of commonly seen comorbidities of PCOS. According to Ayurveda perspective PCOS cannot be restricted to a particular disease but it can be analysed and treated on the basis of symptoms presented and the causes that have led to it. We can co-relate it to *raktaja gulma*, the condition that lies closest to the presenting pattern of a PCOS patient. Here we have the case report of a 29-year-old female, who is a diagnosed case of PCOS since 4 years. She presented with the complaint of inability to conceive and irregular periods. After 1.5 years of OP level management she conceived and delivered a healthy baby boy.

Keywords: PCOS; Ayurveda; Infertility; Outpatient treatment

1. Introduction

Polycystic Ovary Syndrome (PCOS) is an inherited polygenic, multifactorial disorder (1). It is one of the main causes of infertility and a common endocrine disorder nearly affecting 7- 15 % of women in the reproductive age (2).

As per the Rotterdam criteria 2003, cardinal features of PCOS are oligo amenorrhea, increased levels of male hormones and multiple cysts in the ovaries. If a patient is positive with any of the two criteria out of three, she is diagnosed as having PCOS (3). In the present scenario PCOS affected population is 5-15%. This figure is steadily increasing due to the changing lifestyles. Young adults are usually affected, soon after attaining puberty. Nearly 15-20% infertile women are diagnosed with PCOS. Obesity is another complication, seen in 50-70% population diagnosed with PCOS (4).

The primary aims of treating PCOS are to bring about hormonal balance, inducing ovulation in women wanting to conceive, to reduce weight and to reduce side effects of long term health risks. First recommended line of conventional treatment for inducing ovulation is Clomiphene citrate (CC). Another alternative for CC is gonadotrophin therapy and laparoscopic ovarian diathermy. Regular exercises and weight loss can aid in improving menstrual health. It will also help in prolonging the impact of risk factors (5).

Analyzing through an Ayurvedic lens, obese type PCOS which is incidentally the most common type of presentation, manifests with a group of symptoms that can be clearly co-related with the *lakshnas* of *Santarpanajanya Vyadhi* according to *Charakacharya* (6). The patients are typically characterized as having over nourishment, a sedentary lifestyle and high stress levels. *Raktaja gulma*, (9) a condition characterized by cessation of periods and *Vandya* (7)

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characterized by inability to conceive, have to be studied in this context too. Specific symptoms of the patient have been understood in this manner, and treatment has been charted accordingly.

2. Patient History

A 29-year-old female patient who is a diagnosed case of PCOS since 4 years presented in the OP with the complaint of inability to conceive. She has been married for 4 years and has been trying to conceive since then.

She attained menarche at the age of 13, and had regular cycles at an interval of 40 days. She got married in 2015, and had unprotected intercourse for 1 year but failed to conceive. Her cycles became irregular post marriage; she consulted with a gynecologist and was advised for an USG, and was diagnosed with PCOS.

She was started on hormone medication following which her periods were regular for 3-4 months. The consequent year she was staying apart from her husband, had no sexual contact and took no medicine.

In September 2018 She shifted back with her husband, took homeopathy medications and her periods became normal during the time of medicine intake. After stopping medications her cycles again became irregular. Following this she decided to come in for ayurvedic treatment at the hospital OPD.

3. Timeline

Table 1 Timeline

| Date | Event | Findings (if any) |
|----------------|---|--|
| May 2015 | Married | |
| 2016 | Diagnosed with PCOS Took allopathic medications for 1 year, periods were regular during this period. | |
| 2017 | Stopped medication for 1 years. Periods become irregular. Was staying separated from husband. | |
| September 2018 | Shifted to stay with husband. Took Homeopathic medications, periods became regular when taking medications. | |
| June 2019 | Periods irregular after stopping medications. Presented in OP for consultation. Bleeding was scanty during periods (2-3 days) Medicine given for 4 months. | USG- Pelvis: dated 27/3/19 Uterus- 63*27*38mm ET-5mm R.Ovary- 36*18*33cc ; vol-11.4cc L.Ovary – 41*23*32mm;vol-16.cc Findings- Both ovaries show multiple tiny follicles arranged peripherally with dense intervening stroma-Suggest polycystic ovarian disease. USG Pelvis : dated 6/5/19 Uterus- 67*41*32mm ET-5.1mm R.Ovary- 36*18*33cc ; vol-11.4cc |

| | | |
|--------------------------------|--|--|
| | | L.Ovary – 41*23*32mm;vol-16.cc Findings- Small Seedling subserous fibroid measuring 6mm*6mm |
| 20 th December 2019 | Medication continued. Blood flow during periods increased. (4-5 days cycle was seen) | USG Pelvis : <i>dated 20/12/19</i> Uterus- 67*40*31mm ET-8.6mm R.Ovary- 30*33*32cc ; vol-17.5cc L.Ovary – 28*18*32mm;vol-8.5.cc Findings- Multiple peripherally arranged cysts measuring in a range of 3mm-8mm. |
| 13 th Nov 2020 | Medication continued (13/11/20) Cycles started becoming more regular Increased blood flow. (bleeding 5-7) days were seen | USG Pelvis: <i>dated 12/11/2020</i> Uterus- 67*43*34mm ET-7mm R.Ovary- 32*25*22cc ; vol-10.5cc L.Ovary – 37*29*23mm;vol-12.cc Findings- Multiple small follicles of size <8mm. |
| NOV 2020 | Patient conceived. | LMP 22/11/20 |
| 2021 | Delivered Healthy baby boy | |

3.1. Therapeutic Intervention:

Table 2 Medicines Used

| Visit | Medicines |
|-----------------------------------|---|
| 1 st VISIT 7/6/19 | Patolamooladi + Krimighna vati Varadi, Varanadi, Shaddharana ks. Abhaya+Kumari+Ayaskriti+Kankayna vati. Nisa kathakadi toyam. Kseera guduchi Ashra choorna Dasmoola Hareetaki Gandharva hastadibranda tailam- Avagaham |
| 2 nd Visit 20/12/19 | Kanashatahwadhi ks+ Hinguvachaadi choornam Gandharvahastadi ks+ vidangatanduladi Abhaya+ Kumari+ Lodra+ Kalyana kshara Ashtachooranam Varanadi tab Chandraprabha Dasaoolahareetaki Pipalyadi anovasana |
| 3 rd visit- 13/11/20 | Saptasaram Ks+ Hinguvachadi Gandharvahastadi ks+ Vilangathandoladi choornam Abhaya, Kumari, devadaru+ Kalyana ksharam Ashta choornam Chandraprabha Ksheeraguluchi Dasamoolaharitaki |

4. Follow up and Outcomes

Patient's menstrual cycle became more regular and consistent. Blood flow has been improved, from 2-3 days cycle to 5-7 days cycle. She has taken 3 courses of medicine, and during the 3rd course she has conceived. She carried the pregnancy to term and delivered a healthy baby boy.

Table 3 Before & After treatment

| Before (Date- 6/5/2019) | After (Date- 12/11/2020) |
|---|---|
| USG – LMP: 27/4/2019 | USG – LMP: 1/10/20 |
| Uterus- 67*41*32mm | Uterus- 67*43*34mm |
| ET – 5.1mm | ET – 7mm |
| R. Ovary – 26*21*17mm; vol 5.2cc | R. Ovary – 32*25*22; vol 10cc |
| L. Ovary – 27*20*20mm; vol 6cc | L. Ovary – 37*29*23mm; vol 12cc |
| Findings: Small seedling sub serous fibroid measuring 6*6mm | Findings: Multiple small follicles of size <8mm in the periphery with central echogenic stroma. |

5. Discussion

PCOS is an endocrine pathology commonly seen in females of reproductive age. It's delayed diagnosis can cause advancement of its comorbidities making it difficult to treat. Obesity, infertility, glucose intolerance, diabetes mellitus (type-2), cardiovascular disease and mental stress are some of the commonly seen morbidities of PCOS (8).

Coming to an ayurvedic perspective PCOS cannot be restricted to a particular disease but it can be analysed and comprehended on the basis of the signs and symptoms presented. We can correlate this condition with *raktaja gulma*, the condition that lies closest to the presenting pattern of a PCOS patient. Its *lakshanas* mention obstruction of *artava* (*menstrual blood*) caused due to vitiation of *vata*. The other *lakshanas* such as galactorrhea can also be seen in some of the patients diagnosed with PCOS (9). Causative factors of PCOS point to a *santarpana janya vyadi* where we can see the predominance of *kapha dosa*. The *avarana by kapha dosha* causes obstruction of *vata along with rakta dushti* hindering normal functioning of *pitta*. The line of treatment opted is *shodhana, vatanulomana, deepanapachana, kaphamedohara* followed by *srotoshodhana & dhatuposhana*.

In this case first set of drugs given were *Patolamooladi kashayam* along with *Krimighna gutika*. *Patolamooladi kashaya* induces *virechana*, it helps in elimination of vitiated *dosas* through the *malamarga* along with *krimi* from the body. PCOS has a pathology that involves pelvic organs primarily. Here we can see significant *pitta-kapha* vitiation in the seat of *apana*. Hence *virechana* is the best *shodhana* process. Simultaneously *kapha medohara* drugs such as *Varanadi kashayam, Shaddharana choornam* combined with *deepana-pachana* drugs such as *Ashtachooram* and *Abhayarishitam* are administered.

After *shodhana & deepana-pachana*, treatment proceeds to medicines having property of *srotoshodhana* and *chedana*. Here, drugs having *chedana* property were given in combination like *Kanashatahwadi kashayam, Vidangatanduladi choornam, Varanadi kashayam, Kalyana kshara* and *Lodrarishitam*. *Chandraprabha* is a combination that has action at multiple levels. It has *srothosodhana* and *rasayana* properties simultaneously, and specific action in the pelvic region.

In the later stage, *dhatu poshana* is mainly concentrated upon while still maintaining the *agni* at its optimum. Combinations like *Lakshmanarishtha, Nalikerasava, Kumaryasava, Ksheeraguluchi, Chandraprabha* etc are advisable at this point. *Vatasamana oushadha* like *Dasamoolahareetaki lehyam, Gandharvahastadi eranda tailam* and *Pippalyadi anuvasana tailam* are advised throughout, because *anulomana karma* needs to be sustained throughout the treatment of *vatavikara*.

The final stage is aimed at "*Shukla dhatu poshana*". In this case, the patient conceived before the final stage. We can infer that the reason for her inability to conceive would have been due to obstruction of the *artavavaha srotas* which has been reversed through OPD level treatment. The *artavavaha srotas* can be extrapolated to the hypothalamus-pituitary-gonad axis and the *sthooramarga* through which menstrual blood is expelled from the body. This needs further discussion.

6. Conclusion

On the basis of above case report we can conclude that PCOS induced infertility can be treated by out-patient management followed by regular follow-up. While being more economically viable, it also minimizes the need for hospitalization and major disruption of the patient's life.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of informed consent

Written consent was obtained from the individual for the purpose of publication of their clinical details.

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