

Management of Infertility caused by Polycystic Ovarian Disease (PCOD) - A Case Report

Case Report

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Abstract

A 29-year-old Indian woman who is a housewife and has PCOD as her primary cause of secondary infertility from 5 years, has also complained of irregular menstruation cycles and occasional constipation over the same time period. Her ongoing hormonal treatment had included investigative procedures including diagnostic laparoscopy, USG, and HSG, all of which had yielded negative results, and she had ultimately been recommended for IVF. Due to her ongoing hormone treatment, she had to deal with side effects like weight, hirsutism, stress, discomfort and more. Her prolonged hormonal treatment had resulted in adverse effects like weight, hirsutism, stress, discomfort etc. According to Ayurveda, PCOD symptoms point to the involvement of *Kapha* and *Vata dushti*, which leads to *avarodha* in *Artavavaha srotas*. *Virechana* is advised in the classical texts of Ayurveda for *Yonidosha* (gynaecological diseases), while *Erandamooladi basti* is recommended for balancing *Vata dosha*. It was successfully treated by *Ayurvedic* management with *Virechana* and *Basti* from *Shodhana chikitsa* (total 18 days) and *Shamana chikitsa* (total 21 days), which has produced positive outcomes.

Key Words: Polycystic Ovarian Disease, PCOD, Infertility, Ayurveda for infertility.

Introduction

Polycystic Ovarian Disorder (PCOD) and Polycystic Ovarian Syndrome (PCOS) are terms that are used interchangeably. It is a common condition that affects many aspects of fertility. (1) PCOS accounts for up to 30% of infertility cases in couples seeking treatment. (2) It is a common, complex endocrine disorder characterised by polycystic ovaries, chronic anovulation, and hyperandrogenism, resulting in symptoms such as irregular menstruation, hirsutism, acne and infertility. (3) Hormonal abnormalities in PCOD cause mature eggs to accumulate in the ovaries instead of being released. (4) These imbalances impair follicular development throughout the ovarian cycle, causing the afflicted follicles to stay in the ovary and prevent ovulation when the follicles do not mature. Evidence-based medical management for PCOD places a strong emphasis on a multidisciplinary approach because standard pharmacological treatment frequently targets a single symptom, may be contraindicated, has adverse effects and is ineffective in some

circumstances. The need for alternative therapies has also been strongly highlighted by PCOD women. (3)

These symptoms are found in Ayurvedic conditions caused by vitiated *Vata* and *Kapha*. (4) PCOD symptoms point to *Kapha* and *Vata dushti* involvement, resulting in *avarodha* or *avarana* in *Artavavaha Srotasa*. (5) *Vata dosha* is in charge of all movements during the ovarian cycle, including follicular movement, ovarian wall rupture, and movement of fimbriae, which guide the ovum through the fallopian tubes and into the uterus. *Kapha dosha* nourishes the uterus and promotes follicular growth and the development of a fertilised egg into a foetus. *Pitta dosha* is responsible for transformation. *Vata dosha*, in essence, is in charge of mobility, whereas *Kapha dosha* is in charge of consolidation and stability. The existing allopathic treatment options in modern medicine have their own drawbacks, therefore it will take some time to identify a secure and efficient alternative therapy for this kind of problem. (6)

Objective:

To assess the efficacy of specific Ayurvedic treatments in the treatment of infertility caused by Polycystic Ovarian Disease (PCOD).

Patient information

A 29-year-old Indian housewife was diagnosed with polycystic ovarian disease after visiting an Ayurveda clinic with primary complaints of secondary infertility for the previous five years (PCOD).

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Menstrual irregularities and intermittent constipation lasting the same amount of time were related symptoms.

alpa sama, Shabda (speech) - slight whitish, *Sparsha* (touch) - *Ushna, Druka* (eyes) - normal, *Akruti* (built) - *madhyama* tending to *sthoora*.

Clinical findings

On clinical examination, *Bala - Madhyama, Prakriti - Vata Pitta*, Sleep pattern - normal, B.P.-120/80 mm Hg, no addiction, weight - 50 kg, appetite - *Agnimandya*; menstrual history - irregular with cycle of 3 to 4 days and 45-60 days' cycle. The details from *Ashtavidha pariksha* was recorded like - *Nadi* (pulse rate) - 80 per minute, *Mutra* (urine) - burning sometimes, *Mala* (stool) - constipation, *Jivha* (tongue) -

Investigations

Ovulatory monitoring indicated no viable follicles, and USG revealed bulky, polyfollicular ovaries. Diagnostic and therapeutic hystero-laparoscopy revealed many endometriotic deposits, massive PCOD ovaries, and tortuous tubes that spill on both sides (details mentioned in Table 1).

Table 1: History of Allopathic Management before Ayurveda Treatment

Date/ Month/ Year	Investigation done	Intervention
Feb 2013	USG - Bulky follicular ovaries	-
10-06-2013	Started hormonal treatment for amenorrhoea, Advised-Hormonal pills. Advised investigations like Haemogram - R Urine-BSL- F, PP, TSH, AuAg, HIV etc.	Tab Devary 10 -1 BD -3 days
22-06-2013	-	Inj Proluton Depot 250 mcg
10-08-2013	Irregular menses - LMP: 25-07-2013 9-08-2013	Tab Devary 10 mg-1 BD 15 days
16-08-2013	-	Tab Vertin 16- 1TDS-5 days Tab Stugeron 25 -1 BD-5 days Tab Primolut N-1BD -4 days
09-02-2014	USG - Bulky poly-follicular ovaries	Hormonal treatment on off
22-01-2015	HSG - Uterus and fallopian tubes normal	Hormonal treatment on off
28-02-2015	Bulky ovaries with multiple follicles, Ovulatory monitoring - no fertile follicle	Hormonal treatment on off
09-06-2015	-	Tab Progestal 200 mg -1OD-10days
22-08-2015	Widal test- negative	-
01-09-2015	-	Tab Siphene 100 mg Tab Glyciphage 850 mg-1OD
10-09-2015	Multiple developing follicles, s/o polycystic ovaries, Ovulatory monitoring started	Ruptured follicle -19th day
15-10-2015	Ovulatory monitoring	Left ovary ruptured follicle 16th day
21-04-2016	Dilatation and Curettage and diagnostic laparoscopy	-
13-04-2016	AMH-8.34 ng/ml Screened for TSH- 3.48Uiu/ml	-
19-04-2016	Diagnostic and therapeutic hystero-laparoscopy done.	Laparoscopy conclusion- Multiple endometriotic deposits Ovaries - bulky, PCOD Tubes - Both tubes tortuous, but spill both sides.
24-04-2016	Ovulatory study-No rupture endometrial tubercular test- negative	-
21-05-2016	Unsatisfactory ovulation after ovulatory study at NOVA diagnostics AMH-8.34	No growth- stop USG-unsatisfactory ovulation
22-04-2016	Endometrial tissue-Mycobacterium tuberculi	Negative
29-05-2016	Started again with ovarian stimulation with	Inj GNH (75) on 23-05-2016, 25-05-2016 and 29-05-2016
31-05-2016	-	Inj Humog 150 IU stat
02-06-2016	-	Inj Humog 150 IU stat
11-06-2016	Unsatisfactory ovulation	-
11-06-2016	Nova diagnostics advised	Tab Dubagest SR - 300 mg- daily 1 – 10 days

After failure of Management by Allopathy, patient turned for Ayurveda management, as summarized in Table 2.

Table 2: Ayurveda Management details (therapeutic procedures, drugs, doses and schedule)

Therapeutic Procedure	Medicine	Dose	Time Period	Duration
Deepana and Pachana	<i>Amapachaka vati</i>	2 tab twice daily	Before meal 15-05-2017 to 17-05-2017	3 days
<i>Snehapana</i>	<i>Moorchita cow ghee</i>	Increasing dose 50 ml 70 ml 90 ml 100 ml 110 ml	7 am 18-05-2017 to 22-05-2017	5 days
<i>Bahya snehana</i>	<i>Tila taila</i> (Sesame oil)	100 ml	18-05-2017 to 22-05-2017	5 days
<i>Bahya swedana</i> (Bashpa swedana)	<i>Dashmoola kvatha</i>	As per requirement	18-05-2017 to 22-05-2017	5 days
<i>Virechana karma</i>	<i>Abhayadi modaka</i>	4 tab stat with 1 cup of warm water	23-05-2017	1 day
<i>Sansarjana Krama</i>	<i>Peya, Vilepi, Akrita Yusha, Krita Yusha</i>	As per <i>Shuddhi</i> Breakfast Lunch Dinner	23-05-2017 to 27-05-2017	5 days
<i>Basti - Anuvasana and Niruha - alternately</i>	Alternate day <i>Dashmoola Taila</i> and <i>Erandmooladi Kvatha</i> with <i>Dashmoola Taila</i>	<i>Anuvasana</i> - 50 ml <i>Niruha</i> - 450 ml <i>kvatha</i> + oil 50 ml	01-06-2017 to 07-06-2017	7 days
<i>Shamana chikitsa</i>	1) <i>Phalghrita</i>	10 ml	Empty stomach - morning with 1 cup of warm water	21 days
	2) <i>Shatgandha vati</i>	2 tabs of 50 mg each	2 BD with 1 cup of warm water	21 days
	3) <i>Avipattikara churna</i>	5 gm	At bed time with 1 cup of warm water	21 days
Patient conceived	-	USG - normal ovaries and 7 weeks 3 days Pregnancy - delayed conception LMP: 10-05-2017	01-07-2017	-
Patient delivered with LSCS	-	Patient delivered with LSCS on 7th March 2018	07-03-2018	-

Diagnostic parameter

Symptoms of polycystic ovarian disease with abdominal and pelvic ultrasound (PCOD). Before starting the management of Ayurveda, USG report of the patient has suggested at multiple times of PCOD, which was the main cause for secondary infertility. After Ayurveda's management, the USG report has concluded about the normal ovaries that has resulted in to conception.

Therapeutic intervention

The criteria for choosing therapy methods and medications were based on how well they could balance vitiated *doshas* (*Vata* and *Kapha*) and ease PCOD signs and symptoms.

On an outpatient basis, the patient was scheduled for *Virechana karma*, followed by *Basti karma* for seven days and *Shamana chikitsa* for one month. *Deepana* and *Pachana* were started with *Amapachaka vati* (250 mg), 2 tab, twice daily for 3 days after both meals. Then *Snehapana* was done by *Murchhita ghrita* for 5 days in increasing dose [Day 1 (50ml), Day 2 (70ml), Day 3 (90ml), Day 4 (100ml) and Day 5

(110ml)]. After that *Sarvanga abhyanga* with *Tila taila* and *Bahya swedana* (*Bashpa sweda*) with *Dashmoola kvatha* were done for 5 days (on same days of *Snehapana*). *Virechana karma* (10) was done with 4 tablets of *Abhayadi modaka* (8) (each of 250 gms) with a cup of warm water at 9.30 am. *Virechana* was ended with *Kapha darshana*. *Samsarjana krama* (specific diet regimen) was advised for 5 days as per *Shuddhi* gradation.

After that 7 days of *Erandamooladi niruha* (9) and *Tila taila Anuvasana basti* course was administered.

It was followed by oral administration of *Phalghrita*, (10) *Shatgandha vati* (combination of *Shatavari* and *Ashwagandha* in equal quantity) and *Avipattikara churna* (11) as *Shamana chikitsa* (details are described in Table No. 1) for 30 days. On 21st day (1st July 2017) of oral medication, patient informed about the conception.

Follow-up and outcomes

Follow-up was done on 6th day (*Virechana* day), 11th day (on last day of *Samsarjana krama*), *Basti* days and the day on which *Shamana chikitsa* was prescribed.

Patient reported about conception on 1st July 2017. As a precious baby after long infertility treatment, elective LSCS was performed, and the baby was delivered on 07th March 2018.

Results

Prior to beginning the patient's Ayurvedic treatment, the patient's USG report repeatedly raised the findings of PCOD (Table 2), which was the primary contributor to secondary infertility. The USG study concluded that the normal ovaries that led to conception after Ayurveda's care.

Discussion

The patient was receiving ongoing hormonal treatment while undergoing diagnostic laparoscopies, USGs, and HSGs. She made all of these attempts, but was unsuccessful, and IVF was suggested. She was experiencing negative effects from her ongoing treatment, including hirsutism, stress, discomfort, and weight. She was receiving treatment, but it was ineffective because of her severe depression and high levels of familial stress. Her last resort was Ayurvedic treatment. Treatment for PCOD is mostly focused on addressing symptoms, such as obesity, hirsutism, and infertility brought on by anovulation, in addition to lowering long-term health risks like endometrial cancer, etc.

Classical texts of Ayurveda (*Charaka samhita*, (7) *Sushruta samhita* (12) and *Ashtanga hridaya samhita* (13)) have recommended *Virechana* for *Yonidosha* (gynaecological disorders) and *Erandamooladi basti* is prescribed for balancing *Vata dosha*.

Effect on follicular growth and ovulation - Follicular size increased because of removal of *Sanga* by action of *Aama-pachana* and *Srotoshodhana* with *Kapha* and *Vata shamaka* properties of both (*Shodhana* and *Shamana chikitsa*). Removal of *Sanga* (obstruction) caused by vitiated *Kapha* and *Ama* within *Artavavaha srotasa*, leads to normalization of *Apana vata* functions which turns in to normal *Rajah pravritti* and *Beeja nirmitti*. It may be postulated that this treatment modalities (*Virechana* and *Basti chikitsa* followed by specific *Shamana chikitsa*) may declines LH level, therefore preventing early luteinization. Hence normal FSH level encourages growth and development of follicle.

Effect on menstrual irregularities - *Amapachana*, *Srotoshodhana*, and *Vata-kapha-shamaka* properties of both *Virechana karma* and *Basti karma* may be responsible for the efficacy. *Ushna*, *Teekshna*, *Lekhana*, *Pachana*, etc., properties of contents of *Dashmoola* are responsible of balancing vitiated *Vata dosha*. This effect has also supported by *Vatanulomana* property of *Basti*. Conception has revealed that the combination of *Erandamooladi kvatha niruha* and *Tila taila Anuvasana basti* may lower androgen levels, allowing oestrogen to work on endometrium. This has discovered that the management of Ayurveda has treated

PCOD successfully, which has resulted in cure of secondary infertility.

Conclusion

Before getting started with Ayurvedic treatment, the patient's USG report indicated PCOD on multiple occasions, which was the primary cause of secondary infertility. Following Ayurvedic treatment, the USG report concluded that the ovaries were normal, resulting in conception. This case report finds that Polycystic Ovarian Disease (PCOD) was successfully treated with *Virechana* and *Basti karmas* along with oral *Ayurvedic* medications. Additionally, it has come to light that PCOD management also successfully addressed secondary infertility. This case report thus opens the way for a larger sample size, multi-centric investigation in the future.

Inform consent

Before beginning the study's publication, consent forms from patient was obtained.

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