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# **Ayurveda and Integrated Medical Sciences**

**CASE REPORT** 

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# Ayurvedic management of Tubal Block Infertility Associated with Polycystic Ovarian Syndrome: A **Case Study**

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# ABSTRACT

Polycystic Ovary Syndrome (PCOS) is a common endocrine disorder in women of reproductive age, characterized by hormonal imbalances that cause irregular menstruation and ovarian cysts. A significant but often overlooked complication of PCOS is its association with tubal infertility, resulting from issues such as tubal blockages or dysfunctions, making conception more challenging. Infertility affects roughly 1 in 6 people globally, with about 70% of women with PCOS experiencing infertility, and tubal factor infertility accounting for 25-35% of female infertility cases. This case study examines the management of tubal blockage and PCOS through Ayurvedic treatments. A 36-year-old married woman with a history of PCOS reports no significant issues over the past six years of marriage, with irregular menstrual cycles. Clinical findings from a USG revealed bilateral polycystic ovaries, and an HSG indicated a blockage in the right fallopian tube. This infertility case was treated with a combination of Shodhana and Shamana Chikitsa was given to resolve the underlying Samprapthi from 10/7/2022 to 26/7/2023. After 12 months of treatment, the tubal blockage was resolved, PCOS had decreased, and epileptic attacks were reduced. Additionally, the absence of Reidel's lobe of the liver was noted, and the fatty liver decreased from Grade II to Grade I. The patient received a positive urine pregnancy test result on July 26, 2023, and gave birth on June 6, 2024. In this instance, Ayurveda demonstrated its reliability in treating infertility and PCOS, offering effective and holistic methods for managing these conditions.

Key words: Tubal Block Infertility, Polycystic Ovarian Syndrome (PCOS), Vandhyatva, Ayurveda

#### INTRODUCTION

Polycystic Ovary Syndrome (PCOS) is a complex endocrine disorder affecting women of reproductive age, characterized by hormonal imbalances that can lead to irregular menstruation, anovulation, and the

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Access this article online **Quick Response Code** Website: www.jaims.in DOI: 10.21760/jaims.9.7.46 development of multiple small cysts on the ovaries. One of the lesser-known complications of PCOS is its association with tubal infertility, where the fallopian tubes are affected either directly or indirectly due to chronic hormonal disruptions.[1]

Tubal infertility, resulting from conditions like tubal blockages or dysfunction, poses significant challenges to conception, even in the absence of ovarian abnormalities commonly associated with PCOS. Understanding relation between PCOS and tubal factors is crucial in managing infertility in affected individuals, as it demands a multifaceted approach to treatment.[2]

Infertility impacts approximately 1 in 6 people globally of reproductive age, with consistent prevalence across diverse economic settings. This widespread health concern affects about 17.5% of adults worldwide.[3] In India, infertility is estimated to affect 10% to 15% of the

population, including both primary and secondary infertility cases. Among women with PCOS, infertility affects roughly 70%, while tubal factor infertility accounts for 25-35% of female infertility cases.<sup>[4]</sup>

Overall, PCOS is a major public health concern due to its impact on fertility and the associated long-term health complications. Addressing this condition requires awareness, proper diagnosis, and effective management strategies tailored to different populations.

In this case study, tubal blockage and PCOS were managed through treatment strategies that included Shodhana (cleansing therapies), a combination of *Shamana Aushadhi* (palliative medications), and the use of some *Ekamoolika Dravyas* (single herbs).

In Ayurveda, infertility is explained as *Vandhyatva*. *Susrutha* explained factors responsible for successful pregnancy (*Garbha Sambhava Samagri*) in detail. They are *Rithu*, *Kshetram*, *Ambu*, and *Beejam*. Any abnormality in any of these four can lead to infertility. *Rithu* stands for the fertile period in the cycle. *Kshetram* represents healthy reproductive organs. *Ambu* represents proper nutrition after fertilization. It can be correlated with corpus luteal function up to the establishment of the placenta and then onwards placental function. *Beejam* stands for healthy ovum and sperms.<sup>[5]</sup>

Acharya Charaka opines that Soumanasyam (peaceful mind) is the best remedy for getting a progeny. [6] So psychological factors are also important in conception. Arunadatta comments 'Dimbamsyat Drakta Mamsasya Prasaadaadaantra Sambhava'. The ovary is taken as Kosthnga by the name Dimba or Dimbham, formed from Rakta and Mamsa. [7] PCOS symptoms can be correlated with conditions like Dimba Roga, Jatiharini, Vataja Artava Dusthi, Artava Kshaya, Ksheenartava, etc.

In this case study, tubal blockage and *PCOS* were managed through treatment strategies that included *Shodhana* (cleansing therapies), a combination of *Shamana Aushadhi* (palliative medications), and the use of some *Ekamoolika Dravyas* (single herbs).

#### **CASE STUDY**

#### **Patient Information**

A 36-year-old married woman from Hebbal, Bangalore, Karnataka, visited a private clinic on [31/6/2022] for primary infertility. She had previously experienced two pregnancies, both resulting in abortions (G2A2).

#### **Chief Complaints**

- No issues noted in the past six years of married life.
- Complaints of bloating, reduced appetite, increased weight (95 kgs), anxiety, irritation, and fear for the past year.

#### **Medical History**

- PCOS: Since 13 years.
- Epilepsy: Since 10 years, under medication (Levacetum 500mg: (1-0-1) A/F)
- Not a known case of diabetes, thyroid, hypertension.

#### **Menstrual History**

- Menarche: 12 years
- Irregular Cycles: Present for the past six years with a frequency of 30-60 days and a length of 7-10 days.
- Spotting noted in between the cycle for 5-10days.
- Last Menstrual Period (LMP): 10/02/2021
- Amount of Bleeding: Heavy, with 6-7pads/day on Day 1, 5-6 pads/day on Day 2, and 4-5 pads/day on Days 4 and 5.
- Clots: Present on Days 1 and 2.
- Dysmenorrhea: Mild.

# **Marital History**

- Marital History: Since 2016
- Married age: 26 years

#### **Personal History**

- Bowel: Regular
- Appetite: Good

Bladder: Regular

Sleep: Normal

Allergy: None

 Food Habits: Consumes junk foods, fried food, pastries, and ice cream.

Past Illness: None reported.

**Diagnostic Assessment** 

Transvaginal Scan: 2<sup>nd</sup> day of period

B/L features of PCOS seen

30Gfs <1cm</li>

ENDOMETRIUM: 4mm

POD: Clear

### Hysterosalpingography (HSG) (21/1/22)

No spillage seen on right side.

Impression: Right tubal block

#### Ultrasonography: (4/4/22)

B/L polycystic ovaries

Reidel's lobe of liver

Grade II fatty liver

#### **Treatment History**

The patient underwent conventional treatments, including two cycles of intrauterine insemination (IUI) and hormonal therapy, both of which were unsuccessful. Hence, approached the clinic on June 31, 2022, for further assistance.

SN	Treatment	Number of days
1.	Udvartana	7 days
2.	Vamana	16 (including Samsarjana Krama)
3.	Internal Medication (Shamana Aoushadi)	4 months
4.	Virechana	16 (including Samsarjana Krama)
5.	Internal Medication (Shamana Aoushadi)	4 months

#### **Treatment Plan and Timeline**

A combination of *Shodhana* and *Shamana Chikitsa* was utilized to address the complexity of the case and to resolve the underlying *Samprapthi*.

SN	Treatm ent		Medicines used	Numb er of days	Commenc ement of treatment	Comple tion of treatm ent	
1.	Udvart ana		Triphala, Devadaru, Haridara	7 days	10/7/22	17/7/2 2	
2.	Vaman a	Deepan a - Pachana	Hinguvasta ka Churna (½ Spoon with Ghritanna)	3 days	20/7/22 - 6/8	3/22	
		Rooksha na	Continued with Pathya (Yava, Takra, Upma)	2 days			
		Snehapa na	Varunadi Ghritha	di 4 days			
		Vishram a Kaala	Banana, Curd Rice, Dahi Vada, Payasa	1 day			
		Vamana	Ksheera, (Akantapa ana) Madanapip pali-10gm, Yastiphant a, Saindava Jala	1 day			
		Samsarj ana Krama	Anna Peya, Vilepi, Yavagu	5 days			

#### Shamana Aoushada given after Vamana

SN	Medici nes	Treatm ent/ formula tion	Dose	Anup ana	Commen cement	Compl etion	Dura tion
1.	Kancha nara Guggul u		2-0-2 (after food)	With Varu nadi + Suku mara	15/8/22 - 2	0/12/22	4 mon ths

			Kash
			ауа
Varuna		20ml-	With
		-	equal
-		-	warm
		-	water
u			water
		1000)	
Sukuma		20ml-	With
ra		0-	equal
Kashay		20ml	warm
		(after	water
Brahmi	Pratima	2drop	
Ghrita	rsha	s - 0 -	
	Nasya	2drop	
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		morni	
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		and	
		night	
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#### **Virechana**

Procedu re	Treatme nt	Ingredients	Numb er of days	Commencem ent - Completion of treatment
Virecha na	Deepana -Pachana	Musta- Shunti Jala	3 days	5/3/23 - 21/3/23
	Snehapa na	Maha Kalyanaka Ghritha	4 days	
	Vishrama Kaala	Ganji, Pongal With Pomegrana te-1 Each Day Lemon Juice	3 days	
	Virechan a	Trivrut Lehya - 50gm	1 day	
	Samsarja na Krama	Laja Peya, Anna Manda,	5 days	

	Vilepi,	
	Yavagu	

## Shamana Aoushada given after Virechana

SN	Medici nes	Treatm ent/ formula tion	Dose	Anup ana	Comme ncemen t	Comple tion	Durati on
1.	Bhrami Taila	Shiro Pichu	Alter nate days	-	25/4/23 -	26/8/23	4 mont hs
2.	Bhrami Ghritha	Pratima rsha Nasya	0 - 0 - 2dro ps Night ( <i>Nish</i> i Kaal a)				
3.	Yastim adhu	Ksheera paaka	50ml	-			
4.	Yastim adhu +Shata vari Ksheer apaka	Ksheera paaka	50ml	-			
5.	Shatav ari (rub the fresh root with milk on stone)	Lehya	1tsp	Milk			
6.	Mahak alyanak a Ghritha	Ghrita	2tsp	Yasti+ Shata vari Kshee rapaa ka			

# Lifestyle Modification (Based on *Dinacharya*)

Regular Yoga practice: 1 hour each morning

- Abhyanga: Every morning before taking bath
- Consuming Satmya Pathya Ahara (healthy food)
- Reading books: 1 hour per day
- Dhyana/Deva Nama Japa: 30 minutes each early morning and before bedtime
- Pada Abhyanga: performed at bedtime

#### **OBSERVATIONS AND RESULTS**

- No spotting observed
- Regularisation of periods with frequency of 30-35days
- No clots present.

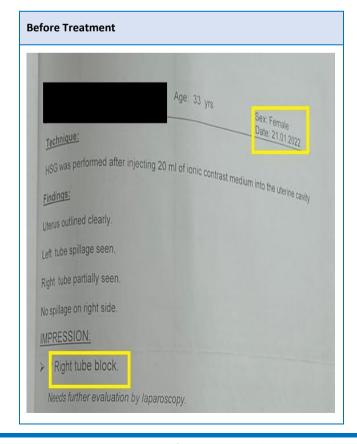
#### Ultrasonography (27/3/23)

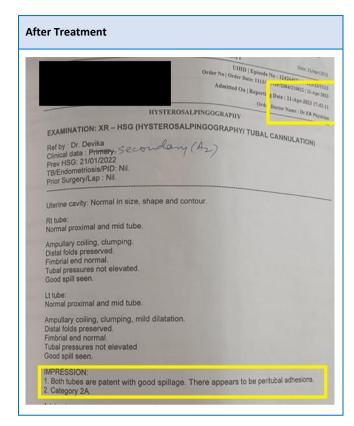
- Grade I Fatty liver
- Mild polycystic pattern of both ovaries

#### Hysterosalpingography (Hsg) (21/4/23)

- Both tubes are patent with good spillage.
- IMPRESSION: Right tubal block.

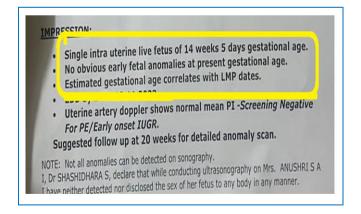
## **Hsg Report**





#### **Pregnancy Report**

- Last Menstrual Period (LMP): June 26, 2023.
- Urine Pregnancy Test (UPT): Positive on July 26, 2023.
- Ultrasound (USG) Report: November 7, 2023.
- Estimated Due Date (EDD): June 1, 2024.



#### **DISCUSSION**

PCOS is a disorder involving Kapha-Pitta Doshas, Rasa, Medo, Shukra (Arthava) Dhatu and Rasa, Rakta, and Artava Vaha Srotas. [8] Formulations Such as Hinguvashtaka Churna, Kanchanara Guggulu, Varunadi Kashaya, and Ghritha are used, Especially

after Vamana. These formulations predominantly feature Katu-Tikta-Kashaya Rasa, Ushna Virya, and Katu Vipaka, with common actions of Kapha-Medohara and Lekhaniya Karma. Research has shown that these formulations can regulate hormonal levels and enhance menstrual regularity. Additionally, their anti-inflammatory properties aid in inflammation, improving insulin resistance in PCOS by boosting metabolism.[9] They also help in lowering cholesterol levels, which is beneficial for women with PCOS who often struggle with lipid metabolism and obesity. [10] The detoxifying effects can help clear blockages in the reproductive organs, potentially boosting fertility.<sup>[4]</sup> Furthermore, the antioxidants in these formulations reduce oxidative stress and are associated with improved fertility outcomes.[11]

Additionally, *Sukumara Kashaya* helps with PCOS and infertility by regularizing menstrual cycles, which improves ovulation and boosts fertility.<sup>[12]</sup>

It also enhances blood circulation to the reproductive organs, providing better nourishment, reducing period cramps, and improving overall reproductive health.<sup>[13]</sup>

Mahakalyanaka Ghritha was administered as both Shodhana and Shamana Aushadi due to its effectiveness in treating both Vandhyatwa (infertility) and Apsmara (epilepsy). [14] It contributed to reducing epileptic attacks, alleviating anxiety and fear, and enhancing fertility. Research indicates that it has neuroprotective effects, providing a calming and stabilizing impact on the nervous system, and improves fertility by enhancing the quality of reproductive tissues and overall reproductive function. [15]

Shodhana procedures like *Udvartana* and *Vamana* can effectively balance hormonal levels and alleviate symptoms of PMS and PCOS by improving insulin resistance, boosting metabolism, managing weight, and enhancing overall reproductive health. These therapies address tubal blockages through *Sroto Shodana*, *Deha and Kshetra Shodhana*, and strengthening the *Dhatus* and *Beeja*. The second strengthening the *Dhatus* and *Beeja*.

Kashyapa states that Akarmanya Beeja, which is associated with anovulation, is best treated with

Virechana. He quotes "Beejam Bhavathi Karmukam," meaning that Virechana enhances effectiveness or trajectory outcome of the action of the Beeja (sperm and ovum). As a result, it positively affects germ cells and improves their quality. [18]

Yastimadhu: (Shonithasthapana, Medhya Rasayana) was given in the form of Ksheerapaaka. Yastimadhu is known for its adaptogenic properties, which help in balancing hormones. [19] It has phytoestrogens that can mimic the action of estrogen, thus potentially aiding in the regulation of menstrual cycles and improving ovulation and help to ease symptoms of PMS and PCOS. It helps in maintaining a healthy endometrial lining, which is essential for implantation and successful pregnancy. [20]

Shatavari: (Vrushya, Rasayana). Shatavari is renowned for its uterine tonic properties. It strengthens the uterine muscles and enhances the endometrial lining, which is crucial for implantation and sustaining pregnancy. [21] The mucilage in Shatavari tones and protects the mucous membranes of the cervix, helping it produce sufficient mucus to facilitate sperm and egg fertilization. [22]

Bhrami: (Prajasthapana, Medhya Rasayana) was given in the form Ghritha and Taila. Brahmi rich in antioxidants like bacosides supports reproductive health by reducing oxidative damage and alleviating psychological stress, which in turn decreases oxidative stress (OS). It helps regulate the hypothalamic-pituitary-ovarian axis and supports ovulation. [23]

Initially, Shamana Aushadis used before and after Vamana, with Lekhaniya properties, helped reduce weight, leading to a decrease in the size and number of cysts, alleviation of inflammation in the reproductive organs, and clearance of blockages in the fallopian tubes. After Virechana, Rasayana Dravyas, known for their nourishing qualities, were chosen to support the maintenance of the endometrial lining, essential for implantation and successful pregnancy. Additionally, these Dravyas, with their Rasayana and Medhya effects, also contributed to a reduction in epileptic episodes.

#### **CONCLUSION**

Treating the present case with necessary Shodana (purification therapies), along with Ekamoolika Dravyas (single-herb formulations), and incorporating counselling and lifestyle modifications facilitated Samprapti-Vighatana (breaking the pathogenesis) by promoting Aartavajanana (enhancement of menstrual function), Sroto Suddhi (purification of channels), Kshetra Suddhi (purification of the reproductive and Prajasthapana (promoting organs), fertility). Regular monitoring and patient adherence to the treatment plan were essential for achieving successful outcomes. Tailoring treatments according to the patient's progress ensured effective therapy. Following 12 months of treatment, the patient found a positive urine pregnancy test result on July 26, 2023 and gave birth on June 6, 2024. In this instance, Ayurveda demonstrated its reliability in treating infertility and PCOS, offering effective and holistic methods for managing these conditions. Ayurveda also holds potential for further adaptation to address similar cases in the future.

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