

ROLE OF TRIVIDHA CHIKITSA IN THE MANAGEMENT OF INFERTILITY: A CASE STUDY

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ABSTRACT

Infertility, affecting approximately 15% of couples globally, has become a growing concern due to its emotional, physical, and financial implications (WHO, 2020). Among the leading causes of infertility is Polycystic Ovary Syndrome (PCOS), a prevalent endocrine disorder characterized by hormonal imbalances, irregular menstrual cycles, and ovulatory dysfunctions, making natural conception increasingly challenging. This case report details the journey of a 30-year-old female with a marital life of eight years, who had been anxious to conceive for the same duration and was diagnosed with PCOS eight years ago. The objective was to explore the role of Trividha Chikitsa in managing infertility associated with PCOS. The treatment protocol integrated Yuktivyapashraya Chikitsa, Daivavyapashraya Chikitsa, and Satvavajaya Chikitsa to address both physiological and psychological factors influencing fertility. Following the intervention, the patient successfully conceived naturally and delivered a healthy baby via spontaneous vaginal delivery. This case highlights the effectiveness of Trividha Chikitsa in managing PCOS-related infertility. This approach acknowledges its potential applicability in managing certain cases of unexplained infertility, offering a comprehensive pathway to address such challenges.

KEYWORDS: Infertility, PCOS, Yuktivyapashraya, Daivavyapashraya, Satvavajaya, Trividha Chikitsa.**INTRODUCTION**

The path to conception has become more difficult in the recent years with an increasing number of couples facing fertility challenges. The rising incidence of infertility is closely linked to modern lifestyle changes, dietary imbalances, sedentary habits, chronic stress, and environmental toxins. Among the various causes of female infertility, Polycystic Ovary Syndrome (PCOS) has emerged as a major contributor. This complex endocrine disorder, often associated with insulin resistance, obesity, and hormonal imbalances, disrupts ovulation and significantly affects reproductive health. PCOS is one of the most prevalent reasons for anovulatory infertility, and around 90-95% of women seeking anovulatory infertility treatment have PCOS.^[1] While conventional medicine provides treatment options like hormonal therapy and ovulation-inducing drugs, many women continue to face unexplained infertility despite addressing primary physiological concerns.

Ayurveda offers a more holistic perspective on infertility through Trividha Chikitsa, a comprehensive three-fold approach to disease management. This includes Yuktivyapashraya (logical interventions),

Daivavyapashraya (spiritual therapy), and Satvavajaya (mind-centred therapy).^[2] Infertility, particularly in cases where no clear medical explanation is found, requires a multidimensional approach that goes beyond physical treatment alone.

In the modern era, where stress and lifestyle disorders significantly impact reproductive health, integrating the principles of Trividha Chikitsa with contemporary medical advancements offers a more sustainable and effective approach to infertility. By addressing both the physiological and psychosomatic aspects of conception, Ayurveda provides a holistic solution, particularly for those facing unexplained infertility.

AIMS AND OBJECTIVES

To understand the role of Trividha Chikitsa in the management of Primary infertility associated with PCOS.

MATERIALS AND METHODS: Single case study.**CASE REPORT**

A 30-year-old female with marital life of 8 years visited

the OPD of Prasuti Tantra and Stree Roga at Sri Sri College of Ayurvedic Science and Research Hospital, Bengaluru on 26th April 2023 with complaint of irregular cycles since menarche and concerns of being anxious to conceive for the past 8 years.

Vedana Vrittanta (History of present illness)

The patient attained menarche at 13 years of age, after which she started to experience irregular menstruation with prolonged intervals between cycles. She has been anxious to conceive since the past 8 years for which she has undergone complete infertility evaluation with her pelvic ultrasound confirming PCOS. The couple did not express much concern about not conceiving during the first three years and did not seek medical consultation for any issues during that time. Later, after consulting at a fertility clinic, they opted for treatment. Despite multiple cycles of ovulation induction along with adjunctive hormonal therapies, serial follicular monitoring showed inadequate response, and she failed to conceive. Repeated follicular studies revealed persistent anovulation with no significant improvement on ultrasound. As patient did not achieve the desired outcome with conventional medical management, she sought alternative treatment at our hospital for further evaluation and management.

Poorva Vyadhi Vrittanta (History of past illness):

Patient is a known case of PCOS and hypothyroidism, both diagnosed 8 years back. (Tab. Thyronorm 50 mcg 1 OD in the morning empty stomach)

Vaiyaktika Vrittanta (Personal history)

- Ahara (Diet): Vegetarian, 2-3 meals/day, Vishamashana (Untimely intake of food, Binge eating)
- Vihara (Regimen): Avyayama, sedentary lifestyle (occupation- IT sector)
- Nidra (Sleep): 8 hours/ day, disturbed
- Mano Avastha (Mental State): Chinta, Shoka (stress, thoughts)
- Agni: Mandagni
- Koshta: Madhyama
- Vyasana (Habits): No addictions

Poorva Prasava Vrittanta (Obstetric History): P0 L0 A0 D0.

Rajo Vrittanta (Menstrual History)

- Age of Menarche: 13 years
- LMP: 10/05/2023
- Regularity of cycles: Irregular
- Duration of bleeding: 3-4 days, moderate amount of flow
- Interval between cycles: 45-60 days
- Clots: Absent
- Colour: Dark red
- Foul smell: Absent
- Dysmenorrhoea: Mild on first 2 days

- Premenstrual symptoms: Bloating starts 3 days prior to cycles.

Marital History: 8 years, non-consanguineous marriage.

Coital History: 5-6 times/ month, no dyspareunia.

Contraceptive History: Nil.

Ashta Sthana Pareeksha

- Nadi (Pulse): Vata-Kapha Pradhana, Saama
- Mala (Bowel): once/day, regular
- Mutra: 4-5 times per day, no itching or burning sensation.
- Jihwa: Lipta (coated)
- Shabda: Prakruta
- Sparsha: Anushna Sheeta (afebrile)
- Drik: Prakruta
- Akrti: Madhyama (medium built)

General Examination

- Temperature: 97.8°F
- Pulse: 78 bpm
- BP: 110/80 mm Hg
- Weight: 69 kg
- Height: 160 cm
- BMI: 27.0 kg/m² (Overweight)
- Pallor/Icterus/Cyanosis/Clubbing/Odema/lymphadenopathy: Absent

Samsthanika Pareeksha (Systemic Examination)

- CNS: Patient is conscious and well oriented to time, place and person.
- CVS: S1, S2 heard, no murmurs.
- R/S: Normal vesicular breath sounds heard, no added sound.

Local Examination

- Hirsutism: Present predominantly over face and limbs (Score- 10, Mild as per Ferriman-Gallwey Scoring System)
- Neck: No thyroid gland enlargement, No acanthosis nigricans.
- Breast: Bilaterally symmetrical. No tenderness, No palpable mass.
- Per Abdomen: Soft, non-tender, bowel sounds present.
- Per Speculum: Cervix-Healthy, no erosion, no discharge, no polyp.
- Per Vaginum: Normal size, uterus- anteverted, free fornices, cervical motion tenderness absent.

Prayogashaleena Pariksha (Laboratory Investigations)

Haematology dated 26/02/2023

- Hb-11.2 g/dL
- TC-11,900 cells/mm³
- Platelet count- 2.1 lakhs cells/mm³

- RBS- 88 mg/dL
- HbA1c- 5.1%
- Lipid Profile- Within Normal Limits

Husband's semen analysis: Normal.

Thyroid profile

- T3 - 0.86 ng/dL
- T4 - 10.12 µg/dL
- TSH – 4.6 mIU/mL

Hormonal Profile

- Prolactin- 8.89 ng/mL
- LH- 9.20 mIU/mL
- FSH- 7.3 mIU/mL
- Testosterone- 84.6 ng/dL
- AMH- 9.80 ng/mL

USG Abdomen and Pelvis (22/2/23): Uterus- anteverted, 7.2 cm x 2.8 cm x 3.9 cm, endometrial thickness- 5.3 mm, both ovaries are enlarged in size with multiple small follicles arranged peripherally with mild increased stroma. Right ovary: 2.7 x 1.5 x 4.0 cms (Volume- 9.24 cc); Left ovary: 4.0 x 3.9 x 2.2 cms (Vol- 18.9 cc). Impression- Bilateral polycystic ovarian features.

HSG (18/12/2022)- Bilateral spillage seen, both fallopian tubes patent.

Nidana Panchaka

Nidana (Etiological Factors): Abhishyandi Ahara (oily, fried and junk food), Vishamasana (Irregular timing of meals), Adhyasana (Binge eating), Avyayama (lack of exercise), Asyasukham (sedentary lifestyle due to occupation), stress, Daiva (unknown cause).

Poorva Roopa (Primordial Symptoms): Artava Kshaya (Oligomenorrhoea), Ati Loma (Hirsutism), Sthoulya (Increase in BMI).

Roopa (Signs and Symptoms): Polycystic ovaries, Vandhyatwa (inability to conceive), Hypothyroidism.

Samprapti (Etiopathogenesis)

- Dosha- Kapha, Vata
- Dushya- Rasa, Rakta, Mamsa, Meda, Artava

Chikitsa (Treatment)

Table 1: Timeline of intervention.

Date		Intervention
18/06/2023	Patient visited the OPD LMP- 10/05/2023	Shamanoushadhi (Oral medications): 1) Chandraprabha Vati 2 BD (after food) 2) Sukumara Kashaya 15mL BD with 15mL warm water (before food) 3) Ashwagandha + Bala Siddha Ksheerapaka 50mL BD (after food) 4) X 2 months
10/09/2023	Cycles were regular for 2 months	Planned for Classical Virechana:

- Agni- Jatharagnimandya, Dhatwagnimandya
- Srotas- Rasavaha, Raktavaha, Mamsavaha, Medovaha, Artavavaha Srotas
- Sroto Dushti Prakara- Sanga, Siragranthi
- Udbahvasthana- Amapakvashaya
- Sancharasthana- Artava Vaha Srotas
- Vyaktasthana- Garbhashaya, Sarvashareera
- Roga Marga- Abhyantara



Vyadhi Vinischaya: Apraja Vandhyatwa with Arthava Kshaya (Primary Infertility with Polycystic ovarian syndrome)

Chikitsa Sutra

“Snehasvedavamanavirecana Āstāpanānuvasanaiḥ
Kramaśaḥ Upacarenmadhuraśadhasiddhābhyām
Kṣīraghr̥tapuṣṭam Puruṣam Strīyam Tu
Tailamāśābhyāmityeke, Sātmyaireveti Prajapatih”
(Kashyapa Saṁhita. Siddhi Sthana.1/34)

	after which she again missed a cycle. UPT- Negative LMP ₁ - 02/08/2023 LMP ₂ - 04/07/2023	1) Deepana Pachana with Chitrakadi Vati 2TID (before food) 2) Snehapana with Pippalyadi Ghrita (40 mL on Day1, 80 mL on Day 2, 120 mL on Day 3) 3) Sarvanga Abhyanga with Brihat Saindhavadi Taila and Bashpa Sweda X 2 days 4) Virechana with Trivrut Lehya 60 g + Triphala Kashaya 100 ml (No. of Vegas- 18, Madhyama Shuddhi)
September 2023	The patient was advised to seek medical astrology consultation, where she was found to have Rahu-Ketu Dosha.	As part of Daivavyapashraya Chikitsa, she was advised to perform Rahu-Ketu Pooja and visit a temple every Tuesday for nine weeks to mitigate the influence of the dosha, which she diligently followed.
12/10/2023	LMP- 05/10/2023	Matra Basti with Sahacharadi Taila 60 mL X 7 days (for 3 cycles) Shamanoushadhi (Oral medications): 1) Pushpadhanwa Rasa 2 BD (after food) 2) Jeevani Syrup 15 mL BD (after food) 3) Aloe's compound 2BD (before food) 4) Sukumara Kashaya 15mL BD with 15mL warm water (before food) 5) Kushmanda Rasayana ½ tsp with milk (after food) X 6 months
14/11/2023	LMP- 08/11/2023	
17/12/2023	LMP- 11/12/2023	
October 2023 -March 2024	Patient was experiencing stress-induced sleep disturbances	Satvavajaya Chikitsa was advised: <ul style="list-style-type: none"> She was reassured and encouraged to develop patience and a calm mindset, emphasizing the role of mental well-being in healthy conception. Recommended regular practice of meditation, Yoga, and Pranayama.

OBSERVATION AND RESULTS

Table 2: Before treatment (BT) - After treatment (AT) Comparison.

	BT	AT
Menstrual Cycle	Duration- 4-5 days Interval- 45-60 days Dysmenorrhea- mild VAS (Visual analogue Scale) Score-4 Bloating prior to cycles +	Duration- 4-5 days Interval- 28-32 days Dysmenorrhea- mild VAS (Visual analogue Scale) Score-2 Bloating absent
USG (Ovarian Volume)	Date: 22/2/2023 Right ovary: 2.7 x 1.5 x 4.0 cms (Volume- 9.24 cc) Left ovary: 4.0 x 3.9 x 2.2 cms (Volume- 18.9 cc).	Date: 01/02/2024 Right ovary: 3.3 x 3.0 x 2.2 cm (Volume- 11.8 cc) Left ovary: 3.4 x 3.2 x 2.3 cm (Volume- 12.8 cc)
BMI	Weight- 69 kg 27.0 kg/m ²	Weight- 65 kg 25.4 kg/m ²
Follicular Study	Day 22: 23/08/2023 ET- 12 mm No dominant follicles on both the ovaries.	Day 12: 03/02/2024 ET-8.9 mm Follicle ruptured (Dominant Follicle-2.9 X 2.4 cm) Free Fluid in POD +
Anxious to conceive	Failure to conceive	Patient missed her cycles in April 2024; UPT- Positive, confirmed with early pregnancy scan. LMP: 29/03/2024; EDD: 3/01/2025 Anomaly Scan- SLIUG of 19 weeks 3 days, Normal anomaly scan. Patient was well-covered antenatally with an uneventful pregnancy. She delivered a healthy female baby weighing 3900g through Caesarean section on 2/01/2025.

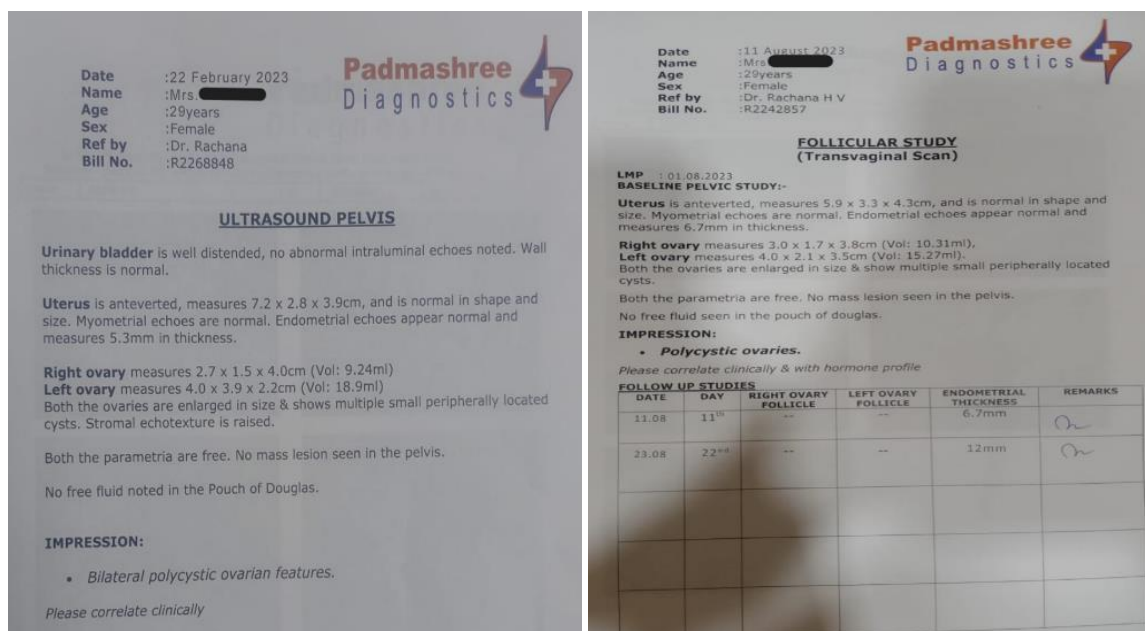


Figure 1: Before Treatment (BT).

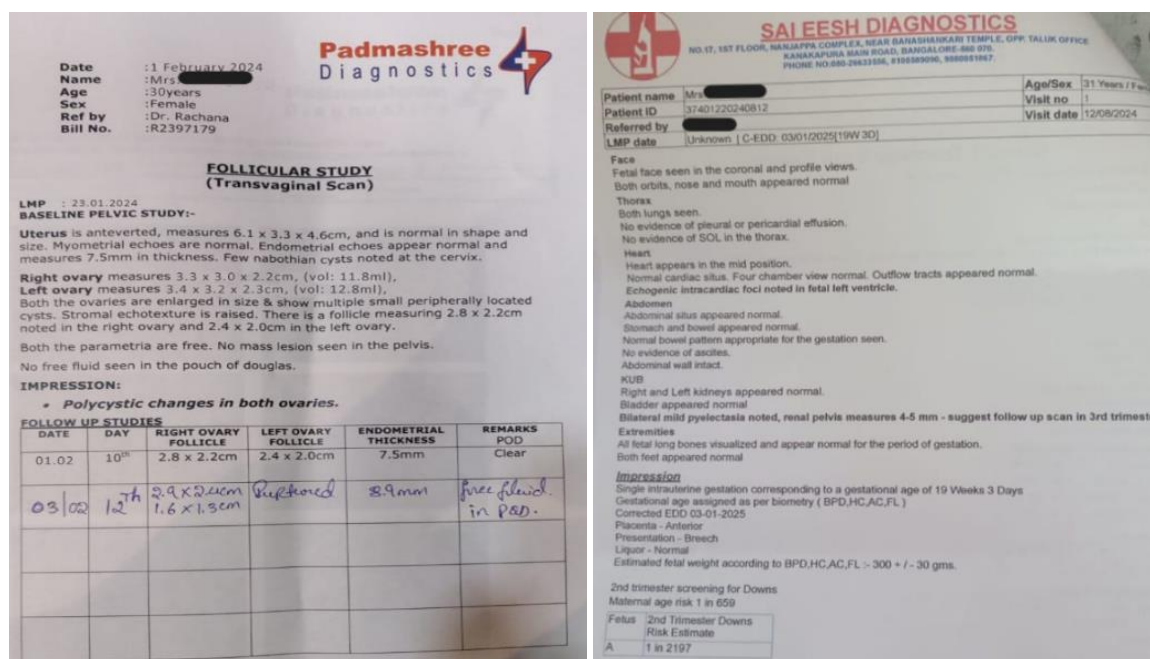


Figure 2: After Treatment (AT).

DISCUSSION

Infertility is not just a physiological challenge but also an emotional and societal concern, requiring solutions beyond symptomatic relief. Ayurveda, with its time-tested wisdom, offers a multidimensional approach to restoring the body's innate balance. Among its many causes, PCOS has emerged as a modern epidemic, disrupting hormonal harmony and reproductive function. Tackling it requires an in-depth understanding of etiopathophysiology, the intricate interplay of *Doshas*, and the targeted action of Ayurvedic interventions that restore natural fertility. Despite undergoing multiple treatments including ovulation induction, hormonal therapy, and Ayurvedic interventions, patient has failed

to conceive in this case, prompting the physician to explore often neglected factors such as Manasika Bhavas (mental well-being) and Daiva (external influences). This case underscores the importance of an all-encompassing treatment strategy i.e., Trividha Chikitsa— Daivavyapashraya, Yukti Vyapashraya, and Satvavajaya Chikitsa— which plays a crucial role in addressing the deeper complexities of infertility.

Interpretation of Nidana Panchaka

A deeper analysis of Nidana Panchaka is essential to outline the aetiology and progression of disease. A thorough understanding of how the disease unfolds allows for a targeted treatment approach that addresses

imbalances in Dosha and Dhatu, corrects Jatharagni (digestive fire), and clears Sroto Avarodha (obstructions in the channels). Infertility associated with PCOS is a Vyadhi Sankara (complex disorder) with multifactorial etiology involving Tridosha vitiation, Agnimandya, and Srotodushti. Since classical Ayurvedic texts do not describe PCOS as a single entity, its etiopathogenesis must be analysed based on Dosha involvement, Dushya status, Agni, and Srotas. Mithya Ahara Vihara (improper diet and lifestyle) as listed under the Nidanās above leads to the aggravation of Kapha, which obstructs the natural flow of Apana Vayu, resulting in impaired ovulation and menstrual irregularities. This obstruction hinders the proper formation and release of Artava (Folliculogenesis and ovulation), leading to infertility. Additionally, the vitiation of Pitta can cause hormonal imbalances manifesting as hirsutism and increased stress, while Kapha imbalance contributes to weight gain, further complicating reproductive health.

The role of thyroid hormones in female reproductive health is well-established, given the presence of TSH and thyroid hormone receptors (TR- α 1 and TR- β 1) on ovarian and oocyte surfaces. These hormones are crucial for folliculogenesis, fertilization, embryogenesis, implantation, and pregnancy maintenance.^[3] Anovulation in PCOS is characterized by arrested antral follicles with abnormalities in gonadotropin regulation, secretion, and intraovarian factors. Recent studies highlight the role of Anti-Müllerian Hormone (AMH) in both central and intraovarian mechanisms, with androgen programming influencing neuroendocrine and ovarian follicular function.^[4]

Despite undergoing ovulation induction with gonadotropins and letrozole, along with metformin for PCOS and thyroid management, the patient showed persistent anovulation and failed to conceive. This raises the question of additional underlying aetiologies, as Ayurveda comprehensively details the Nidanās (causative factors) of Yoni Vyapat and Vandhyatwa. Possible contributors include Beeja Dosha (genetic, hereditary, or epigenetic factors), Manasika Bhavas (psychological influences), and Daiva (unexplained or karmic factors).

Beeja Dosha extends beyond genetic inheritance to include epigenetic influences, where environmental factors like diet, stress, and toxin exposure can modify gene expression affecting fertility. Chronic stress, as seen in this case, can induce epigenetic alterations in germ cells, impairing gamete function.^[5] Ati Chintana (excessive worry) and Shoka (grief) may also contribute, as studies show elevated cortisol and DHEA levels in women with PCOS, linking stress to reproductive dysfunction.^[6] The chronic activation of the Hypothalamic-Pituitary-Adrenal (HPA) axis and Sympathetic Nervous System (SNS) disrupts homeostatic mechanisms, affecting menstrual cycles and ovulation, thereby worsening infertility.^[7]

Role of Yuktivyapashraya Chikitsa

To address the patient's delayed cycles and infertility, oral medications were initiated to regulate Apana Vata, Kapha-Medo Dushti, and Agnimandya, which contribute to anovulation. Chandraprabha Vati would have helped promoting follicular development due to its Granthihara and Tridosahara properties. Sukumara Kashaya may have aided in Deepana-Pachana, Vatanulomana, and Rasayana effects, improving digestion and menstrual regularity. Ashwagandha and Bala Siddha Ksheerapaka, with their phytoestrogens and adaptogenic properties, could have played a role in balancing hormonal fluctuations and mitigating stress-induced HPA axis dysregulation. Her cycle remained regular for the next two months. However, as she missed her cycles again with a negative UPT, she was planned for Shodhana therapy.

Deepana Pachana was done with Chitrakadi Vati which can help normalize Jatharagni and Dhatvagni, facilitating proper formation of Rasa and Raktadi Dhatus. Snehapana with Pippalyadi Ghrita addresses Agnivaishamya, improving metabolic function, which is crucial as PCOS is considered a Santarpanajanya Vyadhi (metabolic disorder). Virechana has a direct effect on Agnisthana, potentially removing Margavarodha and performing Srotoshodhana. Since Agnimandya might have been an initiating factor for Artava vitiation, cleansing through Virechana may have contributed to restoring reproductive function. Additionally, as Kashyapa mentions, Virechana might have exerted a “Bījam bhavati karmukam” effect, enhancing the potency of Beeja (gametes).

For the next three cycles, Matra Basti with Sahacharadi Taila was planned, which facilitates Vatanulomana, corrects Rajo Dushti, and possibly regulated Apana Vata by stimulating the Enteric Nervous System (ENS) → Central Nervous System (CNS) → Parasympathetic activity. Basti therapy is believed to enhance hypothalamic-pituitary-ovarian axis function, possibly promoting the release of GnRH, FSH, and LH via neurotransmitters, thereby aiding follicular maturation and ovulation.^[8] Sahacharadi Taila, being Kapha-Vatashamaka and Rasayana, might have helped in reducing ovarian cysts and improving follicular maturity.^[9]

Shamana Chikitsa plays a crucial role in further correcting Dosha imbalance, enhancing reproductive function, and improving overall health. Aloe's Compound, being Vatahara, regulates Apana Vata, which is essential in Vandhyatwa (infertility). Pushpadhanwa Rasa being Tridosha Shamaka and Deepana-Pachana, aids digestion and metabolism. Its key ingredients- Naga, Vanga, and Abhraka- have direct influence as Prajanana Sansthana (reproductive system) and Andakosha (ovaries), possibly improving follicular function and ovulation.^[10] Jeevani Syrup, containing Yashtimadhu, Guduchi, Shatavari, and Ashwagandha,

mainly acts as a Rasayana and Garbhashaya Shodhana (uterine cleansing), balancing Tridoshas. Its immunomodulatory and adaptogenic properties could have also contributed to stress reduction, thereby supporting hormonal balance. Kushmanda Rasayana, known for its immunomodulatory and adaptogenic properties, could have helped normalize endocrine secretions, promoting hormonal balance and reproductive function. Its antioxidant and nootropic effects may have further contributed to improving overall vitality and reducing stress-related hormonal disturbances.

Role of Satvavajaya Chikitsa: Acharya Charaka's assertion, "Saumanasyam Garbhadhāraṇām" underscores the significance of a positive mental state in conception, highlighting the interplay between psychological well-being and fertility.^[11] Regular practice of yoga especially those involving balancing and forward bending, improve blood circulation to the pelvic region, enhancing ovarian function and hormonal balance. Pranayama, or controlled breathing exercises, increases oxygenation, and calms the nervous system, promoting a state of relaxation conducive to conception.^[12] Psychological counselling provides emotional support and coping strategies for individuals and couples facing infertility. Techniques such as cognitive-behavioural therapy help in reframing negative thoughts, managing expectations, and reducing the psychological burden associated with infertility treatments.

Role of Daivavyapashraya Chikitsa: Ayurveda acknowledges Daiva (divine or unknown factors) as a cause of infertility, as mentioned in the Nidana of Yoni Vyapad and Vandhyatwa. This case may fall under Doshakarmaja Vyadhi, requiring a combined approach of medical treatment, spiritual remedies, and psychological interventions. Despite its significance, the Daiva factor is often overlooked in modern practice, yet addressing it holistically could enhance treatment outcomes. Astrology is believed to play a role in infertility where Rahu-Ketu Dosha is a planetary affliction in Vedic astrology that occurs when Rahu (North Node) and Ketu (South Node) are placed unfavourably in the birth chart, especially in relation to the 5th house (Santana Bhava, progeny), Moon, or key planets like Jupiter and Venus. It is believed to be linked to past-life karma, causing obstacles in fertility, pregnancy, and overall reproductive health. by affecting the "fifth house" (Santana Sthana) in a couple's horoscope.^[13] To counteract these influences, remedial measures such as Mantra, Japa, Homa, and astrological corrections are often advised which was followed by the couple in this case.

CONCLUSION

Any form of Artava Dushti is said to eventually lead to Vandhyatwa (infertility). With the increasing prevalence of PCOS, infertility is directly proportional to its occurrence. PCOS associated infertility is a complex

condition, often described as a Vyadhi Sankara (syndrome of multiple diseases), which necessitates a multidimensional approach. This is where the application of Trividha Chikitsa comes into play. The potential of Ayurveda in treating such complex cases elevates its significance in modern healthcare. In this case, the application of Trividha Chikitsa has led to a successful conception, demonstrating its effectiveness. However, further studies and scientific exploration are needed for a deeper and more comprehensive understanding of its mechanisms and efficacy.

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