



Case Study

AYURVEDIC APPROACH FOR MANAGEMENT OF SECONDARY INFERTILITY DUE TO
ARTAVAKSHAYA (PCOD)

Nikita Bharghava^{1*}, Bihani Sanjyal¹, K. Bharathi², Poonam Choudhary³

*1PG Scholar, ²Professor and HOD, ³Assistant Professor, Prasuti Tantra evam Stri Roga Department, National Institute of Ayurveda, Deemed to be University, Jaipur, Rajasthan, India.

Article info

Article History:

Received: 22-02-2024

Accepted: 14-03-2024

Published: 04-04-2024

KEYWORDS:

Secondary infertility, Artavkshaya, PCOS, Srotoshodhana, Agni deepana.

ABSTRACT

The World Health Organization defines infertility as a disorder of the male or female reproductive system characterized by the inability to conceive after 12 months or more of consistent unprotected sexual activity. Secondary infertile if they have successfully become pregnant at least once in the past. 30-40% of infertility is caused by ovulatory disruption. PCOS is characterized by oligo/anovulation, excess androgen-related symptoms, and numerous ovarian cysts. Infertility correlates with *Vandhyatha* in Ayurveda. Acharya Harita described that failure to achieve a *Praja* known as *Vandhayatwa*. *Praja* is achieve by *Garbha* and to achieve *Garbha* purity of many component (*Ritu*, *Kshetra*, *Ambu*, *Beeja*) is necessary. Regarding this case, *Ritu* is disturbed in form of *Artavkshaya*, managed through principles like use of *Agneya dravya*, *Agni Deepana*, *Vata Shamana* and *Piita Vardhna*. **Case presentation:** A female patient, 25 years old, visited Prasuti Tantra and Stri- Roga OPD of National Institute of Ayurveda, Jaipur, on 28 august 2023 with secondary infertility associated with delayed and scanty menses for 3 years. **Methodology:** Detailed history with all clinical, physical examination and laboratory investigations were carried out which were normal. Ultrasonography reveals bilateral PCOD. So the treatment was planned accordingly. Patient was treated with *Shatapushpa churna* in 2 consecutive cycles. **Result:** Patient got her menstruation after one month of drug intake with improvement in menstrual pattern. She continued to take drug during the second month and missed her period consequently after that.UPT was done and was found positive.

INTRODUCTION

The World Health Organization (WHO) defines infertility as a disorder of the male or female reproductive system characterized by the inability to conceive after 12 months or more of consistent unprotected sexual activity.^[1] Secondary infertile if they have successfully become pregnant at least once in the past. Thirty to forty percent of infertility is caused by ovulatory disruption.^[2] Polycystic ovarian syndrome is characterized by oligo/anovulation, excess androgen-related symptoms, and numerous ovarian cysts.^[3] Infertility correlates with *Vandhyatha* in Ayurveda.

Acharya Harita described that failure to achieve a *Praja* (child) known as *Vandhayatwa* (infertility)^[4]. *Praja* is achieved by *Grabha*.

The main components to achieve a *Gabha*, according to Acharya Sushruta, are *Ritu* (fertile phase), *Kshetra* (whole reproductive system), *Ambu* (nutrition), and *Beeja* (ovum for female and sperm for male)^[5]. According to Acharya Charaka among many etiological factors, *Ashrik dosha* (present in this case) is one, responsible for delayed conception. *Vandhyatha* (infertility) can result from *Artavkshaya* (*Asrug dosha*)^[6] if appropriate treatment is not received. Acharya Sushruta, in the chapter "*Dosha Dhatu Mala Kshaya Vriddhi Vignanam*," outlines the clinical features of *Artavakshaya* ^[7] as follows-

- *Uchitakala Adarshanama* (correlates with Oligomenorrhea)
- *Alpata* (may correlates with hypomenorrhea)
- *Yoni Vedana* (may correlate with dysmenorrhea)

| Access this article online | |
|---|---|
| Quick Response Code | |
| | https://doi.org/10.47070/ijapr.v12i3.3157 |
| Published by Mahadev Publications (Regd.) publication licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0) | |

Above all symptoms together constitute the *Artavakshaya*.

Artavakshaya results from *Vata* and *Pitta dosha*^[8] involvement, causing *Asrug dushti* leads to *Vandhyatava*.

Comparatively, in modern medicine, oligomenorrhea^[9] refers to menstrual bleeding occurring more than thirty five days apart, while Hypomenorrhea^[10] denotes unduly scanty bleeding lasting less than two days and dysmenorrhea refers to pain during menses which disturb day to day activities.^[11] These conditions, prevalent in PCOS with an incidence^[12] of 75-87%, results from various factors including hormonal imbalances, poor health, inadequate nutrition, constitutional factors, or uterine/endometrial issues. Treatment approaches in modern medicine encompass reassurance, enhancing overall health, hormonal therapy, and tailored interventions targeting the underlying cause.

Artavkshaya is managed through principles like use of *Agneya dravya*^[7], *Agni Deepana*, *Vata Shamana* and *Piita Vardhna*.^[13]

Present case discusses the role of single drug *Shatapushpa* (*Antheum sowa*) in managing secondary infertility due to PCOS.

Case Presentation

A female patient, 25 years old, came to Prasuti Tantra and Stri-Roga OPD of National Institute of Ayurveda, Jaipur, on 28 august 2023 with secondary infertility associated with delayed and scanty menses for 3 years. She had one issue 3 years back which died after 2 days of delivery. So, she came to NIA for the treatment of same problem.

Menstrual History: The duration of her menstrual cycle was of 1-2 days with interval of 45 - 90 days, irregular, flow-scanty, pain mild, colour blackish, clots present. Her last menstrual period was on 26th August 2023.

Pad history: ½ pad soaked per day

Obstetric history: G1P1A0L0D1

D1- Full term normal delivery, Female child 3 years ago died 2 days after delivery and cause of death is not known.

Family history: No relevant family history

Past surgical history: No history of surgery in the past was found.

Personal History

- Appetite - Normal
- Sleep - Normal
- Bladder - Burning micturition
- Bowel habits - Normal

Clinical Findings

• General examinations:

- ✓ Built – Normal
- ✓ Weight – 62kg
- ✓ Height – 153 cm
- ✓ Pulse rate- 72/min
- ✓ Blood Pressure - 120/80 mm of hg
- ✓ Respiration rate- 18/min
- ✓ Temperature - 98.6°F
- ✓ Per abdomen- It was soft, non-tender and no organomegaly was detected.

Physical examination

Ashtavidhapariksha

- ✓ *Nadi- Vatapittaj*
- ✓ *Mutra - Samyak mutra pravriti*
- ✓ *Mala- Sama*
- ✓ *Jihwa- Sama*
- ✓ *Shabda- Samyak*
- ✓ *Sparsha- Ushna*
- ✓ *Drika- Samanya*
- ✓ *Aakriti- Madhyama*

Dashvidhapariksha

- ✓ *Prakriti (nature) - Vatapittaja*
- ✓ *Sara (purest body tissue) - Madhyama (medium)*
- ✓ *Samhanana (body compact) - Avara (minimum)*
- ✓ *Pramana (body proportion) - Madhyam (medium)*
- ✓ *Satmya (homologation) - Madhyam (medium)*
- ✓ *Satva (mental strength) - Madhyam (medium)*
- ✓ *Vaya (age) - Yuvati*
- ✓ *Vyayamshakti (to carry on physical activities) - Madhyam (medium)*
- ✓ *Aharashakti (food intake and digestive power) - Madhyam (medium)*
- ✓ *Abhyavaranashakti & Jaranashakti - Madhyam (medium)*

Systemic Examination

- ✓ CVS: Heart sounds (S1S2): normal Respiratory system: normal bilateral air entry, no added sounds.
- ✓ No abnormality found on other system

Diagnostic Assessment

| |
|--------------------------------------|
| 27.8.23- CBC- Haemoglobin- 6.60mg/dl |
| Platelets – 222 *10 ³ |
| ESR – 60mm/hr |
| Random blood sugar – 92.10mg/dl |
| S. Urea- 18.70mg/dl |
| S. Creatinine- 0.84 mg/dl |
| Liver function test- SGOT -23.80 U/L |

| |
|---------------------------------|
| SGPT- 12.50 U/L |
| Alkaline phosphatase- 88.00U/ml |
| S. TSH- 2.470 mIU/ml |
| S. FSH- 5.46 mIU/ml |
| S. LH – 8.55 mIU/ml |
| S. Prolactin – 9.46 ng/ml |

USG Report

| Date | Report |
|-----------|--|
| 15.04.23. | Uterus size – Normal ET- 10.9 mm s/o Bilateral PCOD vol. Rt. Ovary – 13mm vol. Left ovary – 14mm |

Samprapti Ghataka (Pathogenic factor)

- ✓ *Dosha*– Vata (*Apana, vyana, Samana*), Kapha (*Kledaka*), Pitta (*Pachaka, Ranjaka*)
- ✓ *Dushya* –Rasa, Rakta (blood), Artava
- ✓ *Agni* (digestive fire) – *Jatharagnimandya, Dhatwagnimandhya*
- ✓ *Srotas* (channel) *Artavahasrotas* (channels carrying menstrual blood)
- ✓ *Srotodushti-Sanga* (obstruction)
- ✓ *Vyaktisthana*- Artava, Beejashaya Granthi

Treatment Schedule

Shatapushpa churna 6gm twice daily with cow’s ghee on empty stomach

RESULT

At the end of the second month of treatment, the patient was satisfied with the results. Patient had got menstruation after one month of medication.

Result on menstrual pattern

| Parameters | Before | After |
|------------|------------------------|---------------------------|
| Duration | 1-2days | 3-4 days |
| Interval | 45-60 days | 35-40 days |
| Amount | total pads used- 1 pad | Total pads used – 2-3pads |
| Pain | Moderate | Mild |
| Clots | Present | Present |
| Colour | Blackish | Brown red |

She continued to take treatment in the second month and UPT was done on 14 November 2023 which was found positive. Ultrasonography done on 13th December 2023 shows single intrauterine early pregnancy of 8 weeks 5 days.

Patient consent: Patient’s written approval was taken before publishing this case study in your journal.

Pathya-Apathya:^[14]

- Avoid psychological stress
- Follow *Rajaswala Paricharya* during menses.
- Avoid overly spicy, heavy, baked items, fermented foods, fast food (pasta, peaches, pizza), and cold beverages.
- Intake more green leafy vegetables (spinach, cabbage, capsicum, broccoli), sesame seeds, flax seeds, fruits (orange, apple, papaya), and jaggery in diet.

DISCUSSION

Ayurveda texts clearly states that for *Garbhadhana* (conception) – *Sampada of Ritu, Kshetra, Ambu, Beeja* are crucial which leads to proper formation of *Garbha* (fetus). *Asampada* in these factors leads to infertility.^[5] Ayurveda treatment focus on wellbeing of all the four factors in holistic approach. In present case, all these factors are affected. Ayurvedic medication leads to *Samprapti vighatana* (breaking pathogenesis) resulting achievement of *Sampada of Garbhakara bhavas*.

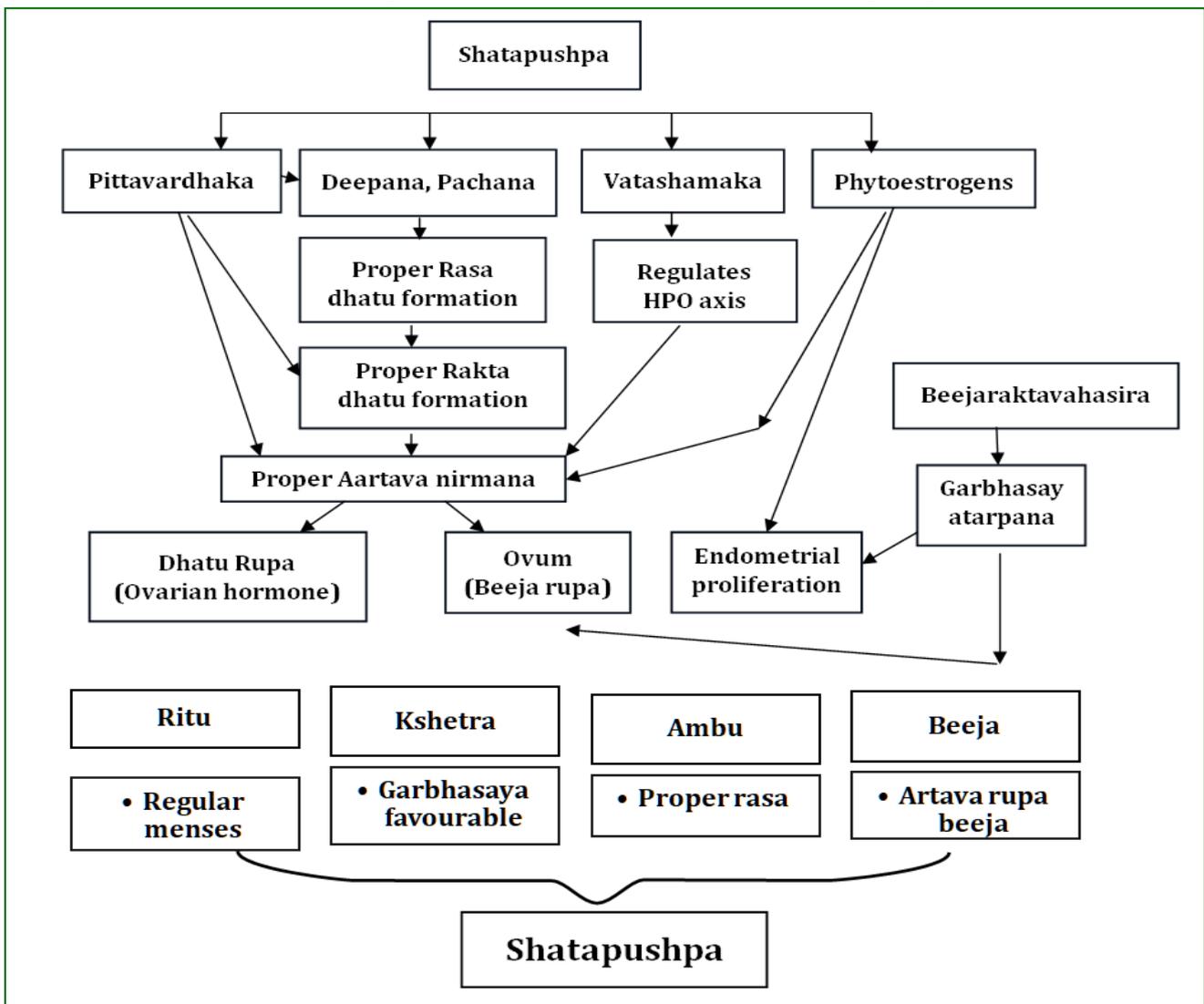
Shatapushpa Properties and Mode of Action^[15,16]

- *Shatapushpa* is known for its *Agneya* and *Artavajanana* properties.
- Its properties include *Agnivardhana* (enhancing digestive fire), *Katu Tikta Rasa, Ushna, Vyavayi*, and *Tikshna Gunas* (properties of penetrating deeply and sharply), *Ushna Veerya* (hot potency), *Katu vipaka*(effect after digestion of substances). These *Rasa Panchaka* helps in proper formation of *Rasadi dhatu* as well as *Artava* which is important for conception.
- Actions includes *Agnideepana* (enhancing digestive capacity), *Ama Pachana* (digesting toxins), and *Shodhana* (cleansing), leading to correction at the tissue level.
- It exhibits *Vata Prashamana* properties, likely influencing the neuroendocrine control at the H-P-O axis.
- It induces enzymatic corrections within the aromatase enzyme system, facilitating follicular maturation and development of an estrogen-dominated microenvironment.
- Its *Ritupravartana* property regulates the menstrual cycle and promotes ovulation through increased local prostaglandin secretions.
- In *Kashyapa samhita, Kalpa stahana*, it is indicated in *Viphala arthava* (anovulatory cycle), *Atyalpa Artava* (hypomenorrhea) etc. In this case previous history of delayed cycle was there along with PCOS. After treatment patient got conceived. It shows previously cycle was anovulatory and later on due to achievement of ovulation she got conceived. This means *Shatapushpa induced* ovulation in the current case.

- It's *Balya* (strengthening) and *Brimhana* (nourishing) properties result in proper endometrial proliferation and follicular maturation.
- *Shatapushpa's* phytoestrogenic action enhances cervical mucus quality, facilitating sperm motility and density. So the drug facilitated transfer of the sperm into the uterus.
- Anethole, a chemical constituent of *Shatapushpa*, has been studied in vitro for its effects on follicular

- development and ovulation induction, potentially balancing the luteal phase and menstruation.
- Its phytoestrogenic properties stimulate estrogen production, contributing to endometrial regeneration, increased vascularity, and follicular development.
- A study revealed that the effect of *Shatapushpa* on ovarian volume reduction appears to support the view that the medication and ovarian morphology could interact.^[17]

Pictorial representation of Mode of action of *Shatapushpa*



CONCLUSION

The principles of Ayurveda suggest giving *Agneya dravyas* in *Artava kshaya*. In this case the best *Agneya dravya Shatapushpa* is given and consequently patient got regular menstruation and finally achieved conception.

REFERENCES

1. Infertility [Internet]. Who.int. [cited 2023 Jan 27]. Available [https:// www.who.int/Newsroom/factsheets/detail/infertility](https://www.who.int/Newsroom/factsheets/detail/infertility) URL: <https://www.who.int/news-room/fact-sheets/detail/infertility>

2. Chakravorty BN. Infertility. In: Konar H, editor. DC Dutta's Textbook of gynaecology. New Delhi: Jaypee Brothers Medical Publishers (P) Ltd; reprint 2020, 8th edition page.no.190.
3. Chakravorty BN. Infertility. In: Konar H, editor. DC Dutta's Textbook of gynaecology. New Delhi: Jaypee Brothers Medical Publishers (P) Ltd; reprint 2020, 8th edition page. no. 384.
4. Harita Samhita, Hari Hindi Commentary, by P. Haridas Tripathi, Trutiya Sthana, published by Chaukhamba Krishna das Academy Varanasi, Reprint edition 2005, Chapter 48, Shloka no.2

5. Srikanthamurthy K. R., Sushruta samhita vol-1, edition 2004, Chaukhamba orientalia Varanasi, Sharirsthana, Chapter 2, Verse 33, page. no. 26
6. Sharma R K, Bhagwan Dash, editors. Agnivesa's Caraka Samhitha Sarirasthana. reprint 2016. Vol. II. Varanasi: Chaukhamba sanskrit series office; chapter 2/8 page no. 352.
7. Sushruta, Sushruta Samhita, Ayurvedatava Sandipika Hindi Commentary, by Kaviraj Dr. Ambikadutta Shastri Part 1, Purvardha, Published by Chaukhamba Sanskrit Sansthana, Edition Reprint.2015, Shaira Sthana, Chapter 15, Shloka no. 16, Page no.77
8. e-Samhita -National Institute of Indian Medical Heritage <https://niimh.nic.in/ebooks/esushruta/?mod=read>
9. Textbook of Gynaecology including Contraception, DC Dutta, edited by Hiralal Konar, Published by Jaypee Brothers, 7 edition 2016, Pg. no. 156
10. Textbook of Gynaecology including Contraception, DC Dutta, edited by Hiralal Konar, Published by Jaypee Brothers, 7 edition 2016, Pg. no. 153
11. Textbook of Gynaecology including Contraception, DC Dutta, edited by Hiralal Konar, Published by Jaypee Brothers, 7 edition 2016, Pg. no. 147
12. Harris HR, Babic A, Webb PM, Nagle CM, Jordan SJ, Risch HA, Rossing MA, Doherty JA, Goodman MT, Modugno F, Ness RB, Moysich KB, Kjær SK, Hogdall E, Jensen A, Schildkraut JM, Berchuck A, Cramer DW, Bandera EV, Wentzensen N, Kotsopoulos J, Narod SA, Phelan CM, McLaughlin JR, Anton-Culver H, Ziogas A, Pearce CL, Wu AH, Terry KL; Ovarian Cancer Association Consortium; Australian Ovarian Cancer Study Group. Polycystic Ovary Syndrome, Oligomenorrhea, and Risk of Ovarian Cancer Histotypes: Evidence from the Ovarian Cancer Association Consortium. Cancer Epidemiol Biomarkers Prev. 2018 Feb; 27(2): 174-182. doi: 10.1158/1055-9965.EPI-17-0655. Epub 2017 Nov 15. PMID: 29141849; PMCID: PMC5877463.
13. Vagbhatta, Ashtanga Samgraha text with Shashilekha Commentary, Sri Indu, Banaras Avurveda Series 19. Chaukhamba Sanskrit Series Banaras, 2nd edition 2008, Sharira Sthana, Chapter 1. Shloka 13.
14. Tiwari premvati. Ayurvedic prasuti tantra evum stree roga part 2 second Edition. Varanasi. Chaukhamba Orientalis; 358-360.
15. Kashyap Samhita, edited by Shri Satyapal Bhisagacharya with hindi commentary Vidyotini, Reprint edition, Choukhmbha Sanskrit Series, Varanasi, Sutra sthana. lehan adhyaya/78-82
16. T K Priyanka, Role of Shatapushpa Taila oral use in Vandhya w.s.r. to PCOS - Retrospective case series. J Ayu Int Med Sci. 2023; 8(3): 174-177. Available From <https://jaims.in/jaims/article/view/2257>
17. A.M. Fulghesu, M. Ciampelli, C. Belosi, R. Apa, V. Pavone, A. Lanzone A new ultrasound criterion for the diagnosis of polycystic ovary syndrome: the ovarian stroma/total area ratio Fertil Steril, 76 (2001), pp. 326-331, 10.1016/s0015-0282(01)01919-7

Cite this article as:

Nikita Bharghava, Bihani Sanjyal, K. Bharathi, Poonam Choudhary. Ayurvedic Approach for Management of Secondary Infertility due to Artavakshaya (PCOD). International Journal of Ayurveda and Pharma Research. 2024;12(3):9-13.

<https://doi.org/10.47070/ijapr.v12i3.3157>

Source of support: Nil, Conflict of interest: None Declared

***Address for correspondence**

Dr. Nikita Bharghava

PG Scholar,

Prasuti Tantra evam Stri

Roga Department,

National Institute of Ayurveda,

Deemed to be University, Jaipur,

Rajasthan, India.

Email:

nikitabhargava0109@gmail.com

Disclaimer: IJAPR is solely owned by Mahadev Publications - dedicated to publish quality research, while every effort has been taken to verify the accuracy of the content published in our Journal. IJAPR cannot accept any responsibility or liability for the articles content which are published. The views expressed in articles by our contributing authors are not necessarily those of IJAPR editor or editorial board members.