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### Journal of

## Ayurveda and Integrated Medical Sciences

**CASE REPORT** 

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# Nasya for Ovulation Induction: Unveiling A Case Study

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#### ABSTRACT

**Introduction:** Infertility can indeed be a challenging situation for individuals or couples who are trying to conceive. Anovulation, is a common cause of infertility. Several factors can contribute to anovulation, Including hormonal imbalances, polycystic ovary syndrome, thyroid disorders, excessive exercise, stress and certain medical conditions. In Ayurveda four factors are mentioned Ritu, Kshetra, Ambu, Beeja should be in proper state in order to achieve conception and complete the pregnancy successfully. Beeja, most essential part among the four has been considered as Antahpushpa i.e., ovum. Anovulation can be included under Beeja Dushti. Ayurveda explained wide range of protocols and medicines for the management of Beeja Dushti. Nasya an Ayurvedic procedure help in getting ovulation. Methods: In this particular case study, a 25-year-old female patient, who has been married for 3 years, presented with regular menstrual cycles, but upon examination, it was discovered that her cycles were anovulatory, meaning that her ovaries were not releasing eggs as they should. Further evaluation through follicular scans revealed the presence of multiple small follicles in both of her ovaries, indicative of a condition known as Polycystic Ovary Syndrome (PCOS). The recommended treatment for this patient involved an Ayurvedic therapy approach. Specifically, she underwent a therapeutic procedure known as "nasyakarma" along with the administration of "Shaman Aushadi." Result: Within a span of one month, the Ayurvedic treatment she received led to noticeable relief. Discussion: In the context of ovulation induction, the present study underscores how Ayurveda plays a pivotal role in yielding favourable results.

Key words: Anovulation, Infertilty, Nasya, Phalaghrita

#### **INTRODUCTION**

Fertility, a delicate and pivotal aspect of human life, can sometimes be fraught with challenges. The intricate interplay of physiological, genetic, and environmental factors can render the journey to parenthood perilous. Couples navigating fertility

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strains, as they traverse a landscape riddled with uncertainties. The pursuit of assisted reproductive technologies further underscores the complex nature of fertility issues. However, advancements in medical science offer a glimmer of hope, with treatments ranging from medications to in vitro fertilization. Despite the pernicious nature of fertility struggles, resilience and medical progress continue to inspire optimism for prospective parents.

hurdles often grapple with emotional and physical

Infertility is the inability of a couple to reproduce after one year of unprotected and regular sexual intercourse. According to W.H.O "A disease of reproductive system defined by the failure to achieve a clinical pregnancy after12 months or more of regular unprotected sexual intercourse. It is serious health issue affect 8-10% couples worldwide, one in every four couples in developing countries is affected by inferlity.<sup>[1]</sup>

Ovarian factor contributes 15-25% and is the second common cause of infertility.<sup>[2]</sup> Ovulatory factor is an important subset in infertility among women, accounting about 40% cases.<sup>[3]</sup>

A woman in whom there is any kind of difficulty in normal process of conception is termed as *Vandhya*.

We observe it in farming that before sowing seeds, the soil is tilled, ploughed, manured and made porous. Then at the right time, seeds are sown and watered regularly. Then only the yield are good. Similarly, a women is like the soil. Her uterus is like a yield.

Ayurveda places significant importance on four essential factors, known as "Garbha-Sambhava Samagri," for ensuring fertility.<sup>[4]</sup>

These factors encompass:

- Ritu: This pertains to the timing of ovulation, ensuring that it aligns with the optimal period for conception.
- Kshetra: It focuses on the health and functionality of the reproductive organs, ensuring they are in proper working order.
- **3.** *Ambu*: This factor encompasses the quality of uterine fluid and the nourishment of the reproductive tissue (*Rasa Dhatu*).
- Beeja: It involves the health and vitality of both sperm and ovum, the foundational elements of reproduction.

These factors are closely linked to an individual's psychological well-being, as well as the normal functioning of *Vata*, one of the governing principles in Ayurveda.

Any abnormalities or imbalances in these factors can lead to infertility. In Ayurvedic terminology, "Stree Beeja" can be correlated with the female ovum, while "Beejotsarga" relates to the process of ovulation. The ancient sage Sushruta, a key figure in Ayurvedic medicine, defined "Nashtartawa" as a primary cause of infertility. [5] In this context, Nashtartawa can be equated with anovulation, a condition primarily attributed to imbalances in the Vata Dosha, one of the elemental principles governing the body in Ayurveda.

These days, it is observed that if there is a disorder in *Artava* due to *Vata*. The volume of *Artva* reduces and the *Beej* becomes weak and thus there is no ovulation. *Pitta* also contributes to ovulation in which it is essential for transformatory changes and hence maturation of follicle.

Ayurveda explain wide range of protocols and medicines for the management of *Beejadushti*. *Nasya* an Ayurvedic procedure help in getting ovulation.

Nasya Karma, an integral aspect of Ayurveda, involves the therapeutic application of medicated substances via the nasal passages. Rooted in the belief that the nose serves as a vital portal to the head, this procedure endeavours to rectify imbalances in the body's *Doshas* (*Vata, Pitta,* and *Kapha*) while augmenting sensory perception and mitigating various health maladies.<sup>[6]</sup>

The term "Nasya" originates from the Sanskrit "Nasa," signifying the nose. This healing regimen offers diverse modalities, including *Pradhamana* (dry powder), *Anu* (oil-based), and *Navana* (decoction-based), each meticulously chosen to address specific conditions. *Nasya* stimulates olfactory nerves and limbic system which in turn stimulates hypothalamus leading to stimulation of GnRHneurons. <sup>[7]</sup> This may regularize GnRH pulsatile secretion which in turn triggers proper gonadotrophin secretion leading to Ovulation.

#### **CASE STUDY**

A 25-year-old female patient sought consultation at Obstetrics and Gynaecology Outpatient Department (OPD) due to her inability to achieve pregnancy for the past 2 years. Her menstrual cycles were regular, and she had provided her ultrasound (USG) report and several blood test results during her visit. Upon examination, she was diagnosed with the presence of multiple small follicles in both of her ovaries. Prior to seeking Ayurvedic treatment at our hospital, she had already pursued medical advice from an allopathic (conventional) hospital and had undergone a two-month course of letrozole induction therapy to stimulate ovulation. However, she was dissatisfied with the results of that treatment. Consequently, she turned to our hospital in search of Ayurvedic management for her fertility concerns.

**Menstrual History** - Patient said that her duration of menstrual cycle was of 5-7 days with regular interval, amount of bleeding was normal.

Obstetric History - G<sub>o</sub>P<sub>0</sub>A<sub>0</sub>L<sub>0</sub>

Family History - No relevant family history

**Past surgical history** - There was not significant history found.

**Personal history** - Her appetite, sleep, micturition, bowel was all normal.

#### **Clinical findings**

General examinations

Built - Normal, Weight - 56kg, height - 150cm, pulse rate - 78/min, B.P. - 110 /72mm of hg, respiration rate - 18/min, temp. -98.6°F

Per abdomen - no tender and no organomegaly was detected.

#### **Physical examination**

#### Ashtavidha Pariksha

Nadi - VP	<b>Shabda</b> - Samyak
<b>Mala</b> - Sama	<b>Sparsha</b> - Sheetal
<b>Mutra -</b> Samyak Mutra Pravriti	<b>Drika -</b> Samanya
Jihwa - Sama	Aakriti - Gaur

#### Dashvidha Pariksha

- 1. Prakriti (nature) Vatapittaj
- 2. Sara (Purest body tissue) Madhyama (medium)
- Samhanana (Body compact) Madhyama (medium)
- 4. Pramana (Body proportion) Madhyam (medium)
- 5. Satmya (homologation) Madhyam (medium)
- 6. Satva (mental strength) Madhyam (medium)
- 7. Vaya (age) Yuvati
- 8. *Vyayamshakti* (to carry on physical activities) *Madhyama* (least capability)

- Aharashakti (food intake and digestive power)
   Abhyavarana Shakti Madhyama (least capability)
- 10. Jarana shakti Madhyam

#### **Systemic Examination**

CVS: Heart sounds (S1S2): normal

Respiratory system: normal bilateral air entry, no added sounds.

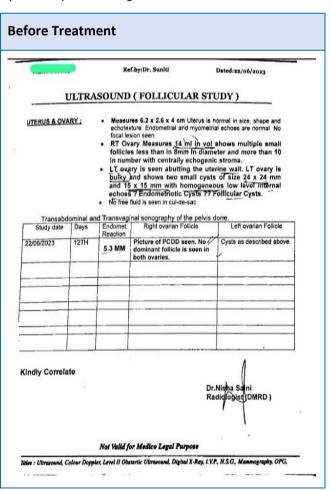
No abnormality found on other system

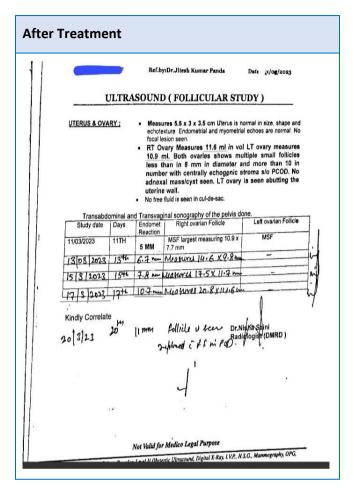
#### **Treatment Schedule**

The treatment was carried out with the following medicines for one months.

- Nasya with Adrak Sawras along with Phlaghrita for 5 days [from 8<sup>th</sup> day]
- Phalaghrita Pana 10 ml followed with 200ml of milk [early morning]

Note - *Adrak Sawras* - 2 drops in each nostril followed by 2-2 drops of *Phalaghrita*.





#### **RESULT**

Within the brief time frame of just one month, the Ayurvedic therapeutic interventions she underwent resulted in discernible alleviation of her condition.

#### **DISCUSSION**

Ovulation is a crucial process in a woman's reproductive cycle, and its disruption can have significant implications for fertility. Understanding its causes is vital because it can pinpoint underlying issues affecting conception. Hormonal imbalances, stress, obesity, and certain medical conditions can disrupt ovulation. Addressing ovulation issues is essential for couples struggling to conceive, as it increases the chances of successful pregnancy. In sum, focusing on ovulation causes is pivotal for both reproductive health and overall health. The main treatment protocol focused on treatment of anovulatory cycle. In Ayurvedic terminology, "Stree beeja" can be correlated with the female ovum, while "Beejotsarga" relates to the process of ovulation.

In *Ayurveda* various treatment modalities including *Nasya* is mentioned for the treatment of infertility due to *Abeejotsarg*.

#### Mode of action of Nasya

In the practice of *Nasya Karma*, the way drugs work can be understood as follows: they enter the vital 'Sringaataka Marma' (a critical point) and from there, they disperse into various channels known as 'Srotases.' It's noteworthy that *Vriddha Vagbhata* was the pioneer in explaining how *Nasya Karma* functions. <sup>[6]</sup>

The action of *Nasya Karma* can be described in the following ways:

- Absorption into General Blood Circulation: The drugs are absorbed and enter the bloodstream, distributing throughout the body.
- Direct Infiltration into Brain's Venous Sinuses:
   Some drugs directly pool into the venous sinuses of the brain through the inferior ophthalmic vein.
- Direct Absorption into Cerebrospinal Fluid: In certain cases, drugs are absorbed directly into the cerebrospinal fluid, which surrounds the brain and spinal cord.

It's known that the peripheral olfactory nerves are linked to the limbic system of the brain, including the hypothalamus. This limbic system plays a crucial role in various functions, including human behaviour and the regulation of hormone secretion. Stimulating the olfactory nerves experimentally has been shown to activate specific cells in the hypothalamus and amygdaloid complex.

To facilitate optimal drug absorption during *Nasya Karma*, it's beneficial to keep the head in a lowered position and retain the medicine in the naso-pharynx area. This allows sufficient time for local drug absorption. Substances that are soluble in liquids have a better chance of being passively absorbed through the cell lining membranes. Additionally, massage and local heat application (fomentation) can enhance drug absorption.

This entire process is believed to have a role in stimulating the Hypothalamus-Pituitary-Ovarian (H-P-O) axis, which in turn stimulates hypothalamus leading to stimulation of GnRHneurons. This may regularize GnRH pulsatile secretion which in turn triggers proper gonadotrophin secretion leading to Ovulation. [7]

When the HPO axis is not functioning correctly, it can hinder the release of mature eggs from the ovaries, causing anovulation.

Zingiber officinale Roscoe (family, Zingiberaceae), known as ginger, is consumed worldwide as a flavouring agent and medicine for thousands of years.[8] In Ayurveda, ginger has been used as a carminative, sweat-inducing, anti-seizure, and blood circulation stimulator for the treatment of inflammation and rheumatoid arthritis.[9] The main medicinal value of ginger is due to gingerol and shogaol which have potent antioxidant activity. Due to its antiinflammatory properties, ginger is beneficial for women struggling with fertility issues. Inflammation can negatively impact the female reproductive system because it reduces blood circulation, which is necessary for ovulation, menstruation and fertilization. Ginger can calm inflammation and stimulate blood circulation. It can also strengthen immunity, helping the body stave off infections that could potentially undermine а woman's reproductive Furthermore, some studies showed that ginger could enhance fertility index, serum testosterone level, testis and seminal vesicle weight, sperm motility, count, quality and enhance male fertility in rats.[10,11]

#### Phalaghrita

Phalaghrita mentioned in Bhaisajya Kalpana has Tridoshashamaka, Garbhasthapak, Rasayana etc.<sup>[12]</sup> property which helps in nourishing the developing follicle to grow as a dominant follicle which lacks in case of anovulatory cycle. Beside this it also helps in proper development of the endometrium which is required for the implantation and nourishment of the zygote. The Nasya Dravya selected here are helpful in 'Beejotsarga'. Furthermore, some studies showed that Phala Ghritam Nasya could promote ovulation induction.

#### **CONCLUSION**

Ayurveda offers a potential remedy for anovulatory infertility that has not responded to allopathic treatments like ovulation induction. Avurvedic approaches aim to rebalance the body's natural rhythms and address underlying issues. While anecdotal successes exist. substantiating the effectiveness of Ayurvedic methods requires extensive group studies. Furthermore, therapies like Nasya, which involve the nasal delivery of herbal treatments, are thought to aid in restoring hormonal equilibrium. In summary, Ayurveda presents a promising avenue for treating anovulatory infertility, necessitating additional research to validate its role alongside conventional medical techniques.

#### **REFERENCES**

- Katole A, Saoji AV. Prevalence of primary infertility and its associated risk factors in urban population in central India. [IJCM] Indian journal of community medicine[internet].2019.
- 2. Dutta DC. Textbook of gynaecology. 8<sup>th</sup> edition. New delhi: Jaypee publishers; 2020. Chapter 15.
- Insler V, Lunenfeld B. Infertility: Male and Female. 2nd ed. Edinburgh, London, Madrid, Melbourne, New York and Tokyo: Churchill Livingstone; 1999
- Sushrut Samhita of maharishi Sushrut edited by ayurveda Tattva sandipika Hindi commentary by Kaviraj Ambikadutta shastri; Sharir sthana 2/35, part 1, page-19; Chaukhamba Sanskritsansthan, Varanasi, reprint 2016.
- Hemalatha Kapoorchand. A comprehensive treatise on Striroga. 1st edition, reprint 2020; chapter no 6, Strivandhayatwa, page no.326.
- Ashtanga Hrudayam 20/1; Vidyotini Hindi Commentary;
   Page.no.172; Chaukhambha Prakasan, Varanasi;
   Edition: 2011
- Vagbhata kruta Ashtang Hridaya, Sarth Vagbhat, Sutrasthana, 19th chapter Shasrakarmavidhi Adhya, 29/2, edited by Ganesh Krushna Garde, Rajesh Prakashan, Pune, 2012 pp 111[mode of action]
- Li Y, Tran VH, Duke CC, Roufogalis BD. Preventive and protective properties of zingiber officinale (ginger) in diabetes mellitus, diabetic complications, and

associated lipid and other metabolic disorders: a brief review. Evid Based Complement Alternat Med. 2012;2012:516870. [PMC free article] [PubMed] [Google Scholar]

- Desmet PGM. Advrse effect of herbel drugs. Germany: springer- verlag belin hedel berg; 1997. pp. 215–228. [Google Scholar]
- Shalaby MA, Hamowieh AR. Safety and efficacy of zingiber officinale roots on fertility of male diabetic rats.
   Food Chem Toxicol. 2010;48:2920–2924. [PubMed] [Google Scholar]
- 11. Hafez DA. Effect of extracts of ginger roots and cinnamon bark on fertility of male diabetic rats. J Am Sci. 2010;6:940–947. [Google Scholar]

12. Kaviraj Atreya Gupta, Vagbhatvirachit Ashtangsangrah Hindi Vayakhya Edited by Pandit. Shri Nandkishor Sharama Reprinted in 1993, Varanasi; Krishndas Academy 1993, Page no. 340.

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