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IMPORTANCE OF UTTARBASTI IN TREATING INFERTILITY IN FEMALES

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ABSTRACT

Infertility is a medical condition that can result in various physical, emotional, mental, spiritual, and medical challenges for the patient. What sets this condition apart is its impact on both the individual experiencing it and their partner as a couple. The financial strain associated with assisted reproductive techniques (ART) and their less-than-ideal success rates can lead to marital stress, abandonment, a loss of social standing, and the added pain, discomfort, and expenses of treatment options. Panchakarma, particularly Uttarbasti, holds a significant role in addressing female infertility. Classic Ayurvedic texts have emphasized the efficacy of Uttarbasti for numerous uro-genital disorders in both men and women, with infertility being a prominent concern. Adapting Ayurvedic procedures and medications to contemporary standards while maintaining core principles is crucial in our current era.

Key-words: Infertility, Uttarbasti, Panchkarma, Medical, Female

Introduction

Infertility is characterized by the inability to achieve pregnancy after one or more years of regular unprotected sexual intercourse. The ability to conceive relies on the fertility of both the male and female partners. Common causes of female infertility include issues related to ovulation, the endometrium, and the fallopian tubes. According to a report by the World Health Organization (WHO), around 17.5% of the adult population – roughly 1 in 6 worldwide – experience infertility, showing the urgent need to increase access to affordable, high-quality fertility care for those in need. It's estimated that 10% of typically fertile couples struggle to conceive in their first year of trying, and an additional 10-25% face secondary infertility. Among these couples, roughly 30-40% of the causative factors are attributed to females and 10-30% to males. Contributing factors to the increasing prevalence of infertility include genetics, lifestyle changes, heightened stress, and environmental pollution. Unfortunately, this issue often results in social stigma, with blame often placed on the female partner, leading to marital discord.¹⁻⁴

Sterility, also known as "Vandhya," is characterized by the inability to conceive. On the other hand, "Apraja" refers to a treatable condition where women can achieve pregnancy, while "Sapraja" is a condition where a female becomes infertile after conceiving one or more times. Major causes of female infertility include issues with the quality of eggs, problems with the ovaries, uterus, a decreased production of eggs, and improper fertilization. In the context of traditional medicine, Vandhya is

described as "Beejamsa dushti" by Charaka and Vagbhata, indicating that abnormalities in factors like "Matraj" and "Pitraj" can hinder conception. It's also categorized as "Vataja yoniroga" and considered one of the 80 "Rogas" associated with Vata. Abnormalities in the "Bija" (seed), improper functioning of "Rasa dhatu" (nutrient fluid), and disorders of the "Yoni" (female reproductive organs) are significant pathological factors linked to infertility. Improper tracking of the fertile period, nutritional factors, and psychological considerations are also considered factors contributing to infertility in this traditional perspective. From a modern scientific viewpoint, factors responsible for infertility encompass issues like anovulatory cycles, irregular menstruation, blockages in fallopian tubes, polycystic ovary syndrome (PCOD), obesity, low sperm count, and reduced sperm motility. Proper timing of conception, maternal nutrition, and psychological well-being can also temporarily affect fertility.⁵⁻⁹

Types of infertility as described in classical texts

According to the Charaka Samhita, there are three main types of infertility. The first is "Vandhya," which refers to the absolute inability to conceive due to severe innate issues like congenital chromosomal abnormalities or Mullerian agenesis. The second is "Apraja," which pertains to infertility where a woman conceives after treatment (primary infertility) or has unsuccessful pregnancies even after conception. The third type, "Sapraja," describes a condition where a woman in her active reproductive age fails to conceive despite a previous history of successful pregnancies.¹⁰

In Harita Samhita, six different types of infertility are described. "Kakavandhya" signifies the inability to conceive after having one child. "Anapatya" relates to primary sterility, where a woman never conceives. "Garbhasravi" is characterized by unsuccessful pregnancies resulting from repeated abortions. "Mritavatsa" is marked by unsuccessful pregnancies due to repeated intrauterine deaths, stillbirths, and perinatal deaths. "Balakshaya" denotes infertility caused by the loss of strength or dhatukshaya. Lastly, "Balya" describes a situation where coitus occurs with a girl before her menarche, leading to a constricted uterus and Bhaga, making conception difficult or delayed.

Acharya Charaka's teachings emphasize the importance of normalcy in the elements of Matruja and Pitruja, namely Shonita (Stribeeja) and Shukra (Pumbeeja). The presence of Aatmaja and Satvaja, where the fertilized egg is enveloped by Aatma and influenced by satva, is crucial for the formation of garbha. The formation of garbha cannot occur without the involvement of aatma and satva. Additionally, the well-being of shonita and shukra is heavily reliant on the consumption of Satmya Aahara and Vihara, which plays a significant role in ensuring the nourishment of both the mother and the embryo. Any irregularities in the six essential factors (shad-bhawas) of Garbhakara-bhavas can result in infertility.¹¹⁻¹²

According to Ayurvedic principles, successful conception depends on several key factors: the fertile period (Rutu), the health of the uterus and reproductive organs (Kshetra), the presence of proper nutrient fluid (Ambu), the quality of the seed (Bija, or shukra-

shonita), and the psychological well-being of the individual (normalcy of hridya). Infertility can result from abnormalities in the functioning of vayu (vital force) and the six physiological components (shadbhavas). Yoni pradoshha refers to issues with the vagina, cervix, uterus, and fallopian tubes that can hinder fertilization. The management of these issues involves two approaches: Daivavyapashraya and Satwavajaya Chikitsa, which work on the psychological component. Yuktivyapashraya includes internal cleansing with internal oleation, the consumption of oily substances, the application of pastes to the vagina, and uttar basti (a specific mode of drug administration). Uttar basti is particularly emphasized in classical texts for the treatment of various gynecological disorders, and Charaka recommends it for recurrent stillbirths.¹³⁻¹⁴

Uttarbasti

Uttar Basti, in the realm of traditional therapeutic procedures, refers to a specialized type of Basti administered through the upper passages known as "Uttar Marga." In males, this passage includes the urinary and Shukra Marga, while in females, it encompasses the urinary and Yoni Marga. Uttar Basti possesses exceptional qualities and is instrumental in alleviating various conditions such as Artava Dushthi, Shukra Dushthi, Atya-artava, Kashtha-Artava, Yoni Vyapads, and other factors related to Vandhyatwa (infertility).¹⁵

The instrument employed for the insertion of medicinal substances through the urinary or vaginal passage is referred to as the "Uttar Basti Yantra." This device can also be employed for shodhan basti. The

term "Uttar Basti" is derived from the fact that it is administered through the upper passage (Uttar Marga). Uttar Basti consists of two main components:

1. **Basti Putak** (drug-holding bag): This can be crafted from materials such as the urinary bladder, animal skin (like goat, pig, or sheep), or thick cloth. It is essential that the Basti Putak is clean, devoid of foul odors, and treated with Kashaya Dravyas (astringent substances).

2. **Basti Netra** (nozzle for inserting drug): The Basti Netra or nozzle should be made from materials like gold, silver, or brass. It should have a tapering shape resembling a cow's tail and possess a smooth texture. The tip of the nozzle should be equivalent in size to the flower stalk of jati, karveera, or the sarshapa seed, allowing for easy passage. Additionally, the nozzle should feature two or three karnikas (rings) to secure the bag and have a length of ten or fourteen angulas. For insertion through the urethra, the nozzle should have an opening passable by a mudga seed and be ten angulas in length, also known as "Pushpa Netra."

The length of the nozzle to be inserted depends on the individual. For women who have given birth or are in their active reproductive years, a four angulas (approximately 4 cm) nozzle is suitable for insertion in the urinary passage. It's important to note that Uttar Basti should not be administered in the vaginal passage to unmarried girls.¹⁶⁻¹⁹

➤ **The timing of Uttar Basti administration is crucial:**

1. Uttar Basti should be given during the Ritukala (follicular phase or just after menstruation) after shodhana

(purification) of women, as the uterine orifices remain open during this period.

2. Charaka suggests that the most suitable time for Uttar Basti administration is during Rutukala.

3. Uttar Basti should be administered after 2-3 asthapan basti during rtukala, as during this period, the yoni or garbhashaya is avarana rahita, allowing for better absorption of sneha (medicated oil or ghee).

➤ **Regarding the quantity of Basti Matra:**

1. As per Charaka, it is 20 grams three times a day for three days.

2. According to Susruta, for males, it is 96 grams (1 prastrita), and for females, it is 192 grams (2 prastrita).

3. Sneha (medicated oil or ghee) should be taken in double the quantity for uterine douching.

4. For decoction, males should receive 96 grams (1 prastrita), females 192 grams (2 prastrita), and unmarried girls 1 prasara.

5. The amount of sneha should be 48 grams for males and 96 grams for females.

6. According to Vangsen, a maximum of 4 tola is recommended.

7. For individuals below 25 years, the dosage is 2 karsh.

➤ **Indications and contraindications for Uttarbasti**

Uttarbasti is an effective treatment for conditions like infertility (Vandhyatva), sperm abnormalities (Shukra Dushti), sexual weakness (Klaibya), cervical insufficiency (Dhvaja-bhanga),

gynecological issues (Yoniroga), uterine prolapse (Yoni vibransha), urinary problems (Mutraghata), disorders of the uterus (Garbhashaya Roga), abnormal uterine bleeding (Asrugdar), menstrual disorders (Artava shikara), menstrual irregularities (Rajo-Dushti), and menstrual suppression (Rajo-nasha). However, it should be avoided in cases of vaginitis, cervicitis, sexually transmitted diseases, and genital organ carcinoma. The ideal time for administering Uttarbasti is during the Ritu kala, which is after the end of menstrual bleeding when the uterus and vagina are most receptive to the oil or medication. It is crucial to ensure that any preexisting infections are treated before performing Uttarbasti therapy.

➤ **The mode of action of Uttarbasti**

It can be categorized into two aspects: local and systemic effects.

1. Local Effect of Uttarbasti: The effectiveness of Uttarbasti depends on various factors, including the method, instrument, and medication used. If the medicine is applied to the cervical canal, it will primarily influence cervical factors. For conditions like cervical stenosis, a medication based on katu ushana taila can be more beneficial, while for promoting mucus secretion from cervical glands, a nutritive and sweet ghrita-based medication will be more effective. The selection of medication for ovulatory and tubal factors will differ from each other. On the ovary, the drug's effects occur after absorption and are related to the hypothalamic-pituitary-ovarian axis. In the case of tubal blockages, Uttarbasti acts locally. For ovulation, a drug with lubricating properties is suitable, while for

tubal blockages, a drug with cleansing properties is preferable. Uttarbasti may also stimulate certain receptors in the endometrium, leading to the correction of various reproductive system processes. Intravaginal Uttarbasti may enhance drug absorption as the posterior fornix has a rich blood supply and can act as a drug reservoir.²⁰⁻²¹

2. Systemic Effect of Uttar Basti after Absorption: Uttarbasti may also exert systemic effects by stimulating neuro-endocrine pathways after absorption. This aligns with the concept of systemic biology, which emphasizes the interconnectedness of all bodily systems and organs at the molecular level. Any change in one organ at the molecular level can affect others. This concept is akin to the traditional Ayurvedic concept of Mahabhut and tridosha. The effects of Uttarbasti drugs on the reproductive system are likely to involve the physiological functions and corrections of other organs in the body.²⁰⁻²³

➤ **Medicines used for Uttar Basti**

- Apamarga Kshara Taila, with its subtle, light, fluid, expansive, stimulating properties, as well as its pungent taste and warming energy, may play a significant role in removing blockages in the fallopian tubes. This oil's ability to cleanse wounds and promote healing, along with its ability to spread easily through tiny channels due to its expansive and subtle qualities, makes it effective in treating inflammation. Its properties of alleviating excess Vata and Kapha suggest that it is an excellent choice for clearing tubal

obstructions and promoting the regeneration of the endometrial tissue.

- Yava Kshara Taila, with its sharp and Vata-Kapha pacifying characteristics, aids in removing obstructing substances and the lining of the fallopian tubes and uterus.
- Narayana Taila and Mahanarayana Taila, known for their ability to pacify Vata and Pitta doshas, are useful in resolving tubal blockages. Administering these oils intravaginally may stimulate receptors responsible for hormone reception in the ovaries and correct their functioning.
- Kumari Taila is highly effective in managing menstrual disorders and hormonal imbalances. It not only clears tubal blockages but also rectifies ovarian functions and restores normal menstrual patterns.
- Panchagavya Ghrita, with its warming and sharp qualities, helps regulate Kapha and Vata, promoting the maturation of Graafian follicles.
- Phala Ghrita, thanks to its lubricating, nourishing, and phytoestrogenic properties, is easily absorbed through mucous membranes, glands, and vessels, increasing ovulation potential and improving endometrial health.
- Shatapushpa's phytoestrogenic properties aid in reducing insulin resistance, a major contributor to PCOS.
- Varunadi Ghrita, with its lekhaniya property, helps resolve endometrial polyps.
- Palasha Kshara Taila, containing Palasha Kshara and Tila Taila, has a Ksharana and Lekhana effect on nodular growth. Tila Taila's properties, such as calming Vata, pacifying mucus, cleansing the female reproductive system, and alleviating pain, help in the removal of uterine fibroids.
- Brihat Shatavari Ghrita purifies Vata dosha and nourishes the endometrium, enhancing its receptivity.²⁰⁻²⁶

Discussion

Factors like tubal issues, cervical problems, and anovulation are responsible for female infertility. An effective treatment for anovulation-related infertility is Uttar Basti, which clears blockages in the reproductive passages and corrects menstrual irregularities. The medication administered via Uttar Basti helps regulate the menstrual cycle, facilitating normal ovulation. It also activates receptors that respond to hormones and promotes natural reproductive processes.⁵⁻⁸ Additionally, Uttar Basti can serve as a local therapy for tubal blockages and alleviates symptoms of various reproductive tract disorders linked to infertility. When the medication is applied through Uttar Basti and absorbed by the cervical epithelium, it resolves cervix-related issues. This procedure can adjust cervical pH as needed to enhance the absorption of lipophilic drugs. Uttar Basti improves endometrial thickness and quality, making it beneficial for endometriosis. It ensures rapid drug absorption for quick relief and prolonged release for lasting therapeutic effects. These drugs can impact ovulation-related hormones,

regulating menstrual cycles and flow. Uttar Basti acts as a cleansing measure for reproductive passage obstructions and provides relief for ovarian and uterine ailments, as well as fallopian tube issues, preventing the exacerbation of infertility causes. Finally, Uttar Basti enhances uterine blood flow, making it useful in cases of infertility associated with anovulation, tubal factors, and cervical factors, among others.²³⁻²⁵

Conclusion

In Ayurveda, treatment is tailored to an individual's dominant constitution, with a specific focus on the reproductive system when addressing infertility. Ayurveda advocates a comprehensive approach, combining systemic and localized treatments, to tackle the widespread issue of infertility in the realm of reproductive health, particularly affecting countless women in India due to anovulation and tubal blockage. Vata, as a primary causative factor, plays a crucial role in infertility. Ayurveda's preferred method for addressing Vata Dosha is through Basti therapy. In the modern era, lifestyle mismanagement has contributed to the rising prevalence of infertility problems. Ayurveda recommends Uttarbasti as a treatment modality for Garbhashyagat Rogas, as it enhances drug absorption and ensures targeted delivery to affected organs.

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