



A COMPARATIVE STUDY OF APPLIED PHYSIOLOGY OF INFERTILITY. (STRI - VANDHYATWA) AND TRIDOSHA: A REVIEW

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ABSTRACT:

Unlike modern system, which considers the simple union of gametes is sufficient for conception, the *Ayurveda* while accepting the whim at gametes (*Beeja*), *Ritu* (fertile period) *Kshetra* (uterus and reproductive organs), *Ambu* (proper nutrient fluid), lays emphasis on the *Hridaya* (Psychology), *Shadbhava* (genetic factors) and normaty of *Tridosha*. Any abnormality in these causes' infertility. In India, infertility is not a disease but a social stigma. In closed social. groups, often female is rejected that affects her mental and physical health. According to WHO, about 15% of Couples of childbearing ages seek medical help for infertility usually after about two years of failing to conceive & they approach to the gynaecologist So, this paper will be helpful for gynaecologist to treat infertility by knowing the relation of applied physiology of infertility and *Tridosha*.

Key words: - Infertility, *Vandhyatva*, *Tridosha*, *Dosvaishamya*

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INTRODUCTION:

Every human being has inherent, intense desire to continue his own race; to become a mother is one of the most cherished desires of every woman. Failure to achieve conception by a couple of mature age having normal coitus during appropriate period of menstrual cycle regularly, at least for one year of their conjugal is termed as infertility. In *Ayurveda* this condition is considered as *Strivandhatva*. It is universal phenomenon occurring both in developing and under developing countries. It is estimated that 10% of normally fertile couples fail to conceive within their first year of attempt and 5% after two years. Between 2 and 10% of couples worldwide are unable to conceive a child and a further 10-25% experience secondary infertility. As per the WHO census there are around 60-80 million infertile Couples in the world.

In Indian Society, infertility is not only physical problem but a social stigma especially for a woman ^[1]. She is generally blamed. She becomes the victim of social gossip for her bareness. This in turn leads to unhappiness, psychosomatic ill health as a result in marital disharmony, Women-trying to conceive often have clinical depression rates similar to women who have heart disease or cancer ^[2]. Even couple undertaking IVF face considerable stress ^[3]. *Vandhyatwa* is considered to be

caused by the imbalance of the three *Doshas* namely *Vata*, *Pitta* and *Kapha*. *Ayurveda* is a holistic system of medicine that has been practiced for thousands of years in India. According to *Ayurveda*, the human body is made up of three *Doshas*, namely *Vata*, *Pitta* and *Kapha*. These *Doshas* play a crucial role in the physiology of the body, including the reproductive system. The balance of these *Doshas* is essential for the proper functioning of the reproductive system.

Tridosha is a fundamental concept in *Ayurveda* and it refers to the three *Doshas*, namely *Vata*, *Pitta* and *Kapha*, These *Doshas* are responsible for maintaining the balance of the body and any disturbance in their equilibrium can lead to various health issues including infertility^[4].

AIMS AND OBJECTIVES:

The primary objective of this study is to compare the applied physiology of infertility with the concept of *Tridosh* and explore the possible mechanisms underlying the *Ayurvedic* management of infertility.

MATERIALS AND METHODS:

This is a literature review- based study and the data was collected from various sources including books, journals, online databases such as PubMed and Google scholar and *Samhita Granthas*

The inclusion criteria for the selection of articles included studies published in other

languages, Studies related to infertility and *Ayurveda*, and studies published in the past 10 years. The exclusion criteria included studies published in other languages, studies related to infertility and modern medicine and studies published more than 10 years ago.

Literary Review:

Ayurvedic concept of *Vandhyatva* (Infertility): According to Ayurvedic classics infertility is a failure to achieve a child rather than pregnancy as *Garbhastrava* (repeated abortions) & *Mrutvatsa* (having repeated still births) is also included in types of infertility. Important factors of constituents of *Garbha* (foetus) are 1) *Rutu* (fertile period), 2) *Kshetra* (reproductive organs), 3) *Ambu* (nutritive fluids), 4) *Beej* (Ovum) - Also healthy psychological status, normal functioning of *Vata* (one of the governing factors of body according to ayurveda), *Shadbhava* (Six factors- mother, father, *Atma*, *Satya*, *Satmya*, *Rasa*). Any abnormality in these factors causes infertility ^[5]. In Ayurvedic classics six type of *Vandhyatva* are noted, which seems to be specific clinical features. *Garbhakoshbhanga* (injury to uterus), *Kakvandhya* (one child sterility or secondary infertility), *Anapatya* (no child or primary infertility), *Garbhasravi* (recurrent abortions), *Mrutaptya* (repeated still births), *Balakshaya* (loss of strength) ^[6].

Identifying the causes of infertility (According to modern)

The utero-tubal-peritoneal factor includes the study of tubal integrity, the uterine cavity and the presence of pelvic adhesions that compromise the anatomy of the female genital tract. Female infertility may be due to: Problems with a fertilized egg or embryo is being unable to survive once it is attached to the lining of the uterus.

Problems with the eggs being able to move from the ovary to the uterus Problems with the ovaries producing eggs More and more women are waiting until their 30s and 40s to have children. Actually, about 20 percent of women in the United States now have their first child after age 35. So, age is an increasingly common cause of fertility problems.

Menstrual cycle (an indication of the state of the health of the female) can be affected by many factors, such as diet, emotional instability, excessive physical exercise, lifestyle, and stress responsible for creating an imbalance of the *Doshas* (control the activities of the body-*Vata*, *Pitta* and *Kapha*). Causes of female infertility;

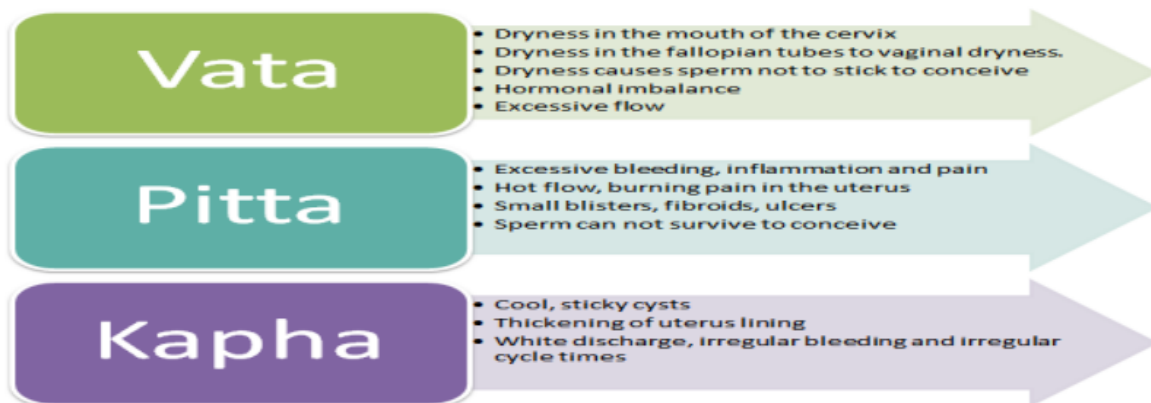
Anovulatory Infertility

An ovulation is defined as the condition in which follicular development and rupture is impaired and hence the oocyte is not released

from its follicle. Several causes for an ovulation have been identified. These include intrinsic ovarian failure including genetic, autoimmune and other factors such as chemotherapy. Ovarian dysfunction secondary to gonadotrophic regulation is another cause. And functional causes including low body weight, excess exercise, the use of drugs and idiopathic in fertility. In women with a suspicion of ovulatory failure, the most frequent causes for an ovulation may derive from one of the following conditions. Polycystic ovaries This is the most prevalent endocrine pathology [7]. The most easily disturbed *Dosha* is the *Vata* which causes functional defects in the egg, difficulties with implantation and is often responsible for infertility. An excessive bout of exercise, fear, anxiety or stress due to trauma, excessive fasting as is the case in eating

weight, excess exercise, the use of drugs and idiopathic in fertility. In women with a suspicion of ovulatory failure, the most frequent causes for an ovulation may derive from one of the following conditions. Polycystic ovaries This is the most prevalent endocrine pathology [7]. people because of the dominant water element in their constitution that supports *Shukra Dhatu* experience the healthiest and the strongest reproductive system. Infertility in those with *Kapha* is initiated by a cold, heavy and oily diet along with a sedentary

Figure 1 : Anatomical co-relations of causes of infertility by Doshas:



disorders or diet including cold, light and dry substances can cause imbalance of *Vata* [8]. However, infertility rarely involves only one *Dosha*. People with *Pitta* nature may experience infertility resulting in scarring of the fallopian tube, inhibiting the ascent of the sperm or descent of the ovum. Excess heat may also be responsible for depletion of *Shukra Dhatu*. On the other hand, *Kapha*

lifestyle. When *Kapha Dosha* is predominant, fallopian tubes may thicken; uterine fibroids may develop, and often involves *Pitta* and *Vata* displacement. Scar tissue is due to *Pitta* pushing *Kapha*.

Tridosha and Infertility: A Comparative Study

The causes of infertility can be physical, environmental, or lifestyle-related. According to Ayurveda, infertility is primarily caused by

an imbalance of the *Tridoshas*. A comparative study of the applied physiology of infertility and *Tridosha* can provide insight into the *Ayurvedic* approach to infertility.

The physiology of infertility involves various systems, including the reproductive, endocrine, and nervous systems. The imbalance of hormones, such as luteinizing hormone (LH), follicle-stimulating hormone (FSH), and testosterone, can affect fertility. In women, the imbalance of estrogen and progesterone can lead to infertility

In *Ayurveda*, infertility is also attributed to an imbalance of the *Tridoshas*. *Vata*, *Pitta*, and *Kapha* can affect the reproductive system in different ways. In women, *Vata* imbalance can cause irregular menstrual cycles or amenorrhea, *Pitta* imbalance can cause heavy bleeding or uterine fibroids, and *Kapha* imbalance can cause cysts or endometriosis^[9].

Tridosha Balancing and Infertility Management

The *Ayurvedic* approach to Infertility “*Ayurveda* supports health by strengthening body’s own self-healing and balancing mechanisms” and doesn’t rely on intervention by any outside or foreign substance to replace or correct the hormones in the body^[10]. It focuses on the treatment of infertility holistically with an aim of improving the overall health and quality of life of the individual^[11]. According to the *Charaka*

Samhita, “the single most important factor in the build-up of *Ama* (toxin created when undigested food forms in the stomach) is the *Agni* and all the disease occurs due to imbalance in *Agni* (the power of digestion). Therefore, the treatment of *Ama* must always include the treatment of *Agni*, including the use of digestive herbs and spices, eating meals timely following a proper schedule and elimination of cold foods and drinks^[12]” *Panchakarma* (*Ayurvedic* deep internal cleansing procedure), can also be utilized. It includes therapies such as *Basti*, *Virechana*, and *Nasya*, can detoxify the body and restore the balance of the *Tridoshas*. *Basti*, or medicated enema, is particularly beneficial for reproductive system disorders and can help regulate menstrual cycles, increase fertility. Evaluation of person’s *Dosha* is very significant for prescribing the treatment and any blockages and weaknesses in body parts for which the treatment includes appropriate diet, body therapies, herbs, sensory therapies, and lifestyle and yoga therapies^[13]. Dietary management Diet plays a crucial and vital role in the prevention and cure of diseases and in maintenance of good health.

Figure 2: Diet as per Dosha to treat infertility



Diet

Diet plays a significant role in maintaining the balance of the *Tridoshas* and improving fertility. According to *Ayurveda*, a diet that is rich in nutrients, easily digestible, and tailored to an individual's *Dosha* can improve overall health and increase fertility. *Vata* types should consume warm, moist, and nourishing foods, such as cooked grains, soups, and stews, to balance their dry and cold tendencies. *Pitta* types should avoid spicy and acidic foods and consume cooling and sweet foods, such as fruits and vegetables. *Kapha* types should consume spicy, light, and warming foods, such as ginger and cinnamon, to balance their heavy and sluggish tendencies. Consuming a balanced diet can also help maintain a healthy weight, which is crucial for fertility^[14].

Herbal medicines, such as *Ashwagandha*, *Shatavari*, and *Gokshura*, can also help balance the tridoshas and improve fertility.

Ashwagandha, for example, regulate menstrual cycles in women^[15].

Lifestyle modifications, such as stress management, regular exercise, and a balanced diet, can also help balance the *Tridoshas* and improve fertility. Stress can affect the reproductive system and cause infertility, so practicing stress management techniques, such as yoga and meditation, can be beneficial. Regular exercise can also help regulate menstrual cycles. A balanced diet that is tailored to an individual's dosha can improve overall health and increase fertility, as discussed earlier^[16].

DISCUSSION:

The comparative study of applied physiology of infertility and *Tridosha* highlights the importance of understanding the complex and multifactorial nature of infertility. The applied physiology of infertility provides a comprehensive framework for identifying the

physiological and pathological factors that contribute to infertility, while the *Tridosha-Triguna Sambandh* concept considers the role of the mind, emotions, and spirituality in the development and management of infertility.

The similarities and differences between these two frameworks provide a basis for developing a comprehensive and integrated approach to the management of infertility. Combining Ayurvedic principles with conventional medical treatments can lead to better outcomes and higher success rates in treating infertility.

These interventions are relatively safe and free of side effects, making them an attractive alternative to conventional medical treatments^[17].

The comparative study of applied physiology of infertility and *Tridosha* provides valuable insights into the complex and multifactorial nature of infertility. Ayurveda provides a holistic and integrated approach to the management of infertility that considers the physical, mental, and spiritual well-being of the individual. The integration of Ayurvedic principles with conventional medical treatments can lead to better outcomes and higher success rates in treating infertility.

Conclusion

In conclusion, infertility is a complex and multifactorial condition that affects many

couples worldwide. In Ayurveda, infertility is believed to arise due to an imbalance in the three doshas and can be managed through a combination of dietary modifications, lifestyle changes, and herbal remedies. Understanding the applied physiology of infertility and the Tridosha concept is crucial in identifying the root cause of the condition and tailoring treatment strategies accordingly.

The comparative analysis of the applied physiology of infertility and Tridosha has shed light on the similarities and differences between these two frameworks. While the applied physiology of infertility focuses on the physiological and pathological aspects of infertility, the Tridosha concept considers the role of the mind, emotions, and spirituality in the development and management of infertility^[18].

The application of Ayurvedic principles in the management of infertility has shown promising results in various clinical studies^[19].

Overall, Ayurveda provides a comprehensive and holistic approach to the management of infertility that considers the physical, mental, and spiritual well-being of the individual. The comparative study of applied physiology of infertility and Tridosha has highlighted the importance of integrating various frameworks to gain a deeper understanding of the

underlying causes of infertility and to develop effective treatment strategies

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