ABSTRACT
As per Ayurveda, important factors for conception are considered as Ritu (fertile period), Kshetra (uterus and reproductive organs), Ambu (proper nutrient fluid) Bija (sperm and ovum). Every human being has inherent, intense desire to continue his own race. Infertility is defined as failure to achieve a pregnancy even after one or more years of regular unprotected sexual intercourse. The risk of infertility increases with advancement in age in both males and females as the quality of egg and sperm. Vandhatva chikitsa also aims in identifying and rectifying the cause. Both male and female have to be assessed and shodhana chikitsa is given to both to expel the doshas resulting in Sudha Sukra and Artava leading to a healthy pregnancy. So this article contents general awareness and clinically used various treatment modalities as per Ayurveda for female infertility.

KEYWORDS: Vandhyatva, Infertility, Shodhana, Doshas.

INTRODUCTION
Failure to achieve conception by mature couple having normal coitus, during appropriate period of menstrual cycle, regularly, at least for one year is termed as infertility. The etiology of infertility generally remains unexplained, although enviromental, occupational and lifestyle characterstices have been implicated. Nutritional status as a major lifestyle factor is
crucial determination of normal reproductive function. Ayurveda pays attention to each individual body types, enhances the body systems participating in the process of fertilization and therefore serves as an alternative for reaching fertilization. So this article's contents general awareness and clinically used various treatment modalities as per Ayurveda.

MATERIALS AND METHODS
This includes classical Ayurveda books, modern gynaecological textbooks, and published articles to collect information and analyse the details to arrive at a conclusion.

ETIOLOGY
INFERTILITY IN MALES
CAUSES
1. Decreased Sperm Count – Oligozoospermia
Normal sperm count in a male is about 100 to 150 millions/mL of semen. Infertility occurs when the sperm count decreases below 20 millions/mL of semen. Sperm count decreases because of disruption of seminiferous tubules or acute infection in testis. In some males, there is possibility of sterility (permanent inability to produce offspring) because of absence of spermatogenesis as in the case of cryptorchidism or underdeveloped testis.

2. Abnormal Sperm
Sometimes, the sperm count may be normal, but the structure of the sperm may be abnormal. The sperms may be without tail and nonmotile or with two heads or with abnormal head. When a large number of abnormal sperms are produced infertility occurs.

3. Obstruction of Reproductive Ducts
Obstruction of reproductive ducts like vas deferens leads to infertility.

4. Other Disorders
i. Cryptorchidism
ii. Trauma
iii. Mumps
iv. Long-term use of drugs
v. Alcoholism
vi. Genetic disorders
vii. Hypothalamic disorders
viii. Disorders of pituitary, thyroid and pancreas.

INFERTILITY IN FEMALES
CAUSES
1. Abnormalities of Ovary
Sometimes, a thick capsule develops around the ovaries and prevents ovulation. In some women, ovaries develop cysts (membranous sac containing fluid) or become fibrotic (hardened tissues resulting from lymphedema). In these conditions, maturation and release of ovum does not occur.

2. Abnormalities of Uterus
A type of endometrial tissue similar to uterine endometrium grows in the pelvic cavity surrounding the uterus, fallopian tubes and ovaries. It is called endometriosis. And, pregnancy does not occur in this condition. In some cases, there is low grade infection or inflammation or abnormal hormonal stimulation in the cervix. It leads to the abnormal secretion of thick mucus in cervix, which prevents entry of sperm and fertilization of ovum.

3. Absence of Ovulation
Ovulation does not occur in some females, because of hyposecretion of gonadotropic hormones. Quantities of these hormones are not sufficient enough to cause maturation of ovum or release of ovum. The cycle without ovulation is known as anovulatory cycle.

4. Other Disorders
i. Diabetes mellitus
ii. Renal diseases
iii. Liver diseases
iv. Hypothalamic disorders
v. Disorders of pituitary gland, thyroid and adrenalertilization of ovum.

AYURVEDIC REVIEW
A lady without progeny is a vandhya and the condition is termed Vandhyatva. Acarya Susrutha explained the destruction of arthava (ovum) as Vandhya leading to the condition vandhyathva. Acarya Bhela stated that vandhya is mainly due to vata. Bhela also explained the semen that falls on bahya nadi does not bear fruit (conceive), similarly Bhavaprakasa mentioned that the sukra which falls on sameerana nadi will not lead to pregnancy.
ESSENTIAL FACTORS FOR FERTILITY

According to Acharya Charaka: Matrutah and Pitrutah: The normalcy of Shonita and Shukra. Aatmatah and Satvataha: Aatma is always encircled with Satva, which descents in the fertilized egg, and forms Garbha (embryo) without them the formation of Garbha is not possible and established idiopathic infertility. Satmyataha and Rasataha: The normalcy of Shonita and Shukra greatly depend upon the use of Satmya Aahar and Vihar. The nourishment of mother and embryo depend upon the Rasa. Without Rasa even mother cannot survive, so there is no question about embryo. According to Acharya Sushruta- Sushruta similarizes the achievement of conception with the germination of a seed by saying that, Rutu: Fertile period is more explained by Acharya Dalhana that Rutu means Rajaha Kala i.e. ovulation period. Deposition of the spermatozoa in the upper vagina should be in appropriate time of the menstrual cycle.

Kshetra: Anatomically and physiologically adequate reproductive organs. Vagina must be healthy. Cervix and its secretion are also permitted to pass spermatozoa. The oviduct must be patent and sufficient ciliary movement is present. The uterus must be capable of supporting implantation and fetal growth throughout pregnancy. Ambu: Proper nourishment to genital organs, adequate hormonal level and proper nutrition is required for genital organs. Beeja: The adequate ovum and spermatozoa and the female’s ovulatory mechanisms must be normal. The male must produce an adequate number of normal spermatozoa.

NIDAN: Without Vata the Yoni never gets spoilt, Vandhyatvahas also been described in eighty types of Vatavyadhi. So, Vata is the prime causative factor of Vandhyatva. Acharya Charaka has clearly described the Nidan of Vandhyatva which are almost similar to causes of infertility according to modern science.

CHIKITSA
Vandhyatva chikitsa cannot be done through a single line of management as the underlying cause will be different in each individual.

✓ Sodhana
✓ Samana chikitsa
✓ Daivavyapasraya chikitsa

Sodhana chikitsa purifies the whole body and is mandatory before sthaniya and samana chikitsa. Sodhanam regulates and restores the normal physiological function and relieves
obstruction. The factors aided by it are bija and rtukala. Sathaniya chikitsa restores a vyapannatwa (healthy state) of yoni, restores structural integrity and enhances functional capacity of keshtra (gabhasaya) and ambu.

Acharya Charak said infertility (male and female) cured by anuvasana vasti and woman conceives after it.

According to Kasyapa, vandhyatwa can be cured by virechan.

**Phala Gritam:** This is an Ayurvedic medicine to treat female infertility. Consumed in the form of liquefied butter mixed with milk. This medicine is touted to treat functional problems but does not treat structural deficiencies.

**Discussion**

Female infertility is the major disorder which has altered the mankind for lack of conception and reproducibility, stressful world, excess radiation, lack of biological food, genetically disorder, changing life style, increased electronic discharge have resulted the female infertility. Infertility/childlessness cause great personal suffering & distress. According to Ayurveda that four factors are responsible for healthy conception, these are retu, kshetra, ambu, and beeja. Abnormality in any of these factors leads to vandhyatva, only a suddha yoni and garbhasya can conceive properly. Diseased yoni may leads to habitual abortion or infertility.

**Conclusion**

Infertility is a challenging health issue that has serious implications for individuals and society. According to a report by the World Health Organization (WHO), one in every four couples in developing countries is affected by infertility. Infertility can be correlated with Vandhyatva explained in Ayurveda classics based on the clinical feature inability to beget a viable child, even though they are not analogous. Based on the explanations vandhyatva is infertility mainly due to congenital problems or chromosomal anomalies in which the woman is unable to have a child. Considering the etiologies, types, and clinical features, vandhyatva can be correlated with Infertility and the treatment
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