



## Review Article

### THE SCOPE OF AYURVEDIC MEDICINE AND THERAPY IN THE MANAGMENT OF INFERTILITY

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#### ABSTRACT

Infertility is described as an inability to conceive despite unprotective sex for duration of one year or more. Male, female or both can be a victim for this disorder. There may be many biological causes of infertility including some can be treated with medical or surgical intervention. Ayurveda consider this problem as a cause of deterioration of quality of four factors i.e., time of ovulation, female health in context of reproductive system, quality of sperm and ovum and female's proper nutrition. There are different treatment methods and medicines used according to the deficit in male, female or in both. *Vajikaran* drugs like *Ashwagandha*, *Madhuyasthi*, *Vidarikanda*, *Gokshura* etc., are used in male fertility problems and *Satavari*, *Punarnava*, *Dasmoola*, *Aloevera* etc., used in female infertility problems. The purificatory procedures like *Vamana*, *Virechana*, *Basti* etc., are also found very effective to improve the quality and strength of required reproductive factors in both sexes. The effect of *Uttar basti* is also evidenced in different researches to treat female infertility.

**KEYWORDS:** Infertility, Ayurveda, *Uttar basti*, Uterus.

#### INTRODUCTION

Infertility is a condition described as being unable to conceive despite unprotected sex between male and female for the duration of one year or more. A person who has this condition is called infertile. Among partners, male, female or both can be the cause of infertility.<sup>[1]</sup> The clinical oligospermia is confirmed by using tests and investigation. According to WHO the inability of a couple to conceive after one year or more of unprotected intercourse.<sup>[2]</sup>

There are 2 types of infertility.

1. Primary infertility refers to couples who have not become pregnant after atleast 1 year having sex without using birth control methods.
2. Secondary infertility refers to couples who have been able to get pregnant atleast once, but are now unable.<sup>[3]</sup>

Many physical and emotional factors can cause infertility. It may be due to problems in the woman, man or both. Reproduction is a simple and natural experience for most couples. However for same couples it is very difficult to conceive.<sup>[4]</sup>

Male infertility is diagnosed after testing of both partners, reproduction problems have been found in the male partner. These are no unanimous

definition of female infertility, but NICE guidelines state that. "A woman of reproduction age, who has not conceived after 1 year of unprotected vaginal sexual intercourse in the absence of any known cause of infertility, should be afforded further clinical assessment and investigation along with her partner". It is recommended that a consultation with a fertility specialist should be made earlier if the women is aged 36 years or over or there is a known clinical cause of infertility or a history of predisposing factors for infertility. Infertility primarily refers to the biological inability of a person to contribute to conception. Infertility may also refer to the state of a woman who is unable to carry a pregnancy to full term. There are many biological causes of infertility including some that medical intervention can treat.

#### Concept of Ayurveda

*Vandhyatva* is fully explored in ancient literature *Atharvaveda*. Ayurveda has described *Vandhyata* as equivalent for infertility. As per Ayurveda principles, imbalance in *Artvavahasrotas* is the principle cause of *Vandhyatva*.<sup>[5]</sup> According to Harit samhita infertility primarily refers to the biological inability of a woman of reproductive age to

contribute to conception and also to state of a woman who is unable to carry pregnancy to full term. *Vandhyatva* as failure to achieve a child rather than pregnancy because he has included *Grabhasravi* and *Mrtavastha* under the classification of *Vandhya*. *Charaka* and *Vagbhata* have referred *Vandhya* as the result of *Pradusta Gabhasaya Bija Bhaga* of *Sonita*. *Susruta*, *Madhavakara*, *Bhavamishra* have quoted *Vandhya* in *Vimsati yoni vyapat*. *Kasyapa* mention *Vandhyatva* as one of the 80 disorders of *Vata*. Regarding the historical important of *Stri vandhyatva*

#### Causes of Infertility [6]

There are following causes of infertility in male.

Pre testicular	Testicular	Post testicular
Endocrine	Cryptorchidism	Obstruction of efferent duct
Gonadotrophin deficiency	Varicocele	Young's syndrome
Thyroid dysfunction	Primary testicular failure	Tuberculosis is gonorrhoea
Psychosexual	-	Hypospadias
Erectile dysfunction	-	Vasectomy
Impotence	-	Bladder neck surgery
Drugs	-	-

- Azoospermia:** It is lack of sperm in semen. It is congenital disease also caused by excess use to steroid and androgens.
- Oligozoospermia:** It is low sperm count with less than 20 million/ml of semen. It causes infertility.
- Teratozoospermia:** It is abnormal morphology of sperms. It is seen in diseases like corhn's disease, Hodgkin disease. It may leads into infertility.
- Aspermia:** It is lack of sperm. It occurs in retrograde ejaculation. It may lead into infertility.
- Haemospermia:** It is presence of blood in semen. It occurs due to infection of prostate or urethra.

#### A female may have one or more of the following causes of infertility [7]

- Disorder in ovulation, the release of eggs from ovary is abnormal.
- Abnormality in structure and function of cervix and uterus.
- Blockage in the fallopian tube or its damage.
- Endometriosis: Growth of endometrium tissue of uterus outside the uterus.
- Primary ovarian insufficiency: Early menopause.
- P.I.D: Pelvic infection and adhesions.
- Celiac disease
- Lupus
- Cancer

and a comparative study regarding it's *Nidana, Samprapti, Laksana, Cikitsa* etc., are compiled from *Vedas, Puranas, Caraka, Susruta, Astanga Sangraha, Astanga Hridaya, Madhava Nidana, Bhava Prakasa, Yoga Ratnakara, Kasyapa Samhita, Harita Samhita, Bhela Samhita, Basava Rajiyam* and *Rasa ratna samuscaya*. There is a clear description about the *Krmis* like *Durnama* which destroys *Garbhasaya* leading to infertility in women. *Yajurveda* also makes a reference of *Garbhadhrana Vidhi* in *Atharvavada*.

- Severe uncontrolled diabetes

#### Some following physical causes may also affect the fertility

- Abuse of drugs such cocaine.
- Any major disease such as diabetic.
- Obesity:** Quite common, slimming down will help.
- Anemia:** Unusual, unless the man has been bleeding for any reason.
- Prescribed drugs:** Particularly proscar, a tablet used for prostate problems.
- Hyperprolactinemia:** A rear disorder where the pituitary gland produces too much of the hormone prolactin.
- Low testosterone:** Level-contrary to what many people think, this is rare, except in cases where some injury or illness has affected the testicular.

#### Psychological factors also affect fertility

- Stress and overwork.
- Hang: Ups from childhood.
- Depression: Very common.
- Serious relationship problems with your partner.
- Obesity: Quite common, slimming down will after help.

#### Causes according to Ayurveda

There are different causes of infertility in Ayurvedic texts. Most of their are similar to modern science but some different etiological factor are very important in this context.

1. The separation of the urge of sexual desire.
2. Self induced inhibition of the force of semen during sexual intercourse.
3. Poor quality and quantity of *Sukradhatu* in reference of semen and sperm.<sup>[8]</sup>
4. Disorder of ovary and uterus.
5. Genetic causes.
6. Unhappiness or willingness of both or one partner as Ayurveda considers happy and stress free mind as a most important factor for fertilization.
7. Other causes like miscarriage, threaded abortion, delete pregnancy, deformity of development of fetus, lactating mother etc.

### Pathogenesis

#### In Male

Male infertility affects about 7% of all men. The etiology of impaired sperms production and function can be related to factors acting at pre- testicular, post testicular or directly at the testicular level. Primary testicular failure accounts for about 75% of all male factor infertility. Genetic factor can be identified in about 15% of cases (congenital hypogonadotropic hypogonadism, congenital absence of vas deferens, primitive testicular failure). Despite progresses mainly in the field of genetics, the etiology is still unknown in about 50% cases and it is termed "idiopathic infertility". Apart from few exceptions, the only available therapy for male factor infertility is assisted reproduction which allows conception also in severe male factor, including azoospermia following testicular sperm extraction.

The complete diagnostic workup is important for -

1. The identification of treatable/reversible or health threatening conditions.
2. Selection of patient for assisted reproduction techniques.
3. For appropriate genetic counseling including preventive measures to safe guard the health of future offspring.

#### In Female

1. Mechanisms of infertility associated with endometriosis controversial and likely depend, in part on the stage of disease is the cause of infertility in these patients, it is hypothesized that minimal mild endometriosis is associated with over production of prostaglandins, metalloproteinase, cytokines and chemokines resulting inflammatory process impairs ovarian, peritoneal tubal and endometrial function leading to defective folliculogenesis, fertilization, or implantation.

2. The major pelvic adhesions present in advanced endometriosis may contribute to reduced fertility by impairing oocyte release, blocking sperm entry into the peritoneal cavity or inhibiting tubule pickup. The functional mechanism discussed above for mild/moderate disease probably also contribute to impaired fertility in women with advance stage disease.

### Ayurvedic view of pathogenesis

According to Ayurvedic classics infertility is failure achieve a child rather than pregnancy as *Garbha srava* and *Mrutvatsa* is also included in type of infertility.

Important factors of continents of *Garbha*<sup>[9]</sup>

1. *Ritu* (session) - The period of ovulation. It is the important factors from fertilization and development of fetus.
2. *Kshetra* (field) - Healthy Uterus.
3. *Ambu* (water) -Unrestricted and qualitative nutrient by the blood circulation.
4. *Beej* (seed) - Healthy sperms and ovum.

Along with these factors health, mental status, normal functioning of three *Dosha* i.e., *Vata*, *Pitta*, *Kapha* is required.

### Treatment

#### For Male

Testicular based male infertility is usually immune to treatment. Standard strategies consist of utilizing the sperm for intrauterine insemination (IUI), in vitro fertilization (IVF) or simply IVF with intra cytoplasm sperm injection (ICSI). Even with a few sperm pregnancies can be accomplished utilizing IVF-ICSI. Obstructive reasons behind post- testicular infertility could be treated with both surgical treatment as well as IVF-ICSI.<sup>[10]</sup> Ejaculatory problems might be treatable by medicine or even by IUI treatment or just IVF. Vitamin E helps to counter oxidative stress, which is connected with sperm DNA problems and also diminished sperm motility. A hormone antioxidant blend could develop sperm number in addition to motility. Oral antioxidants provided to adult males in young couples going through in vitro fertilization for the male element or unexplained sub fertility leads to increased live birth rate.

#### For Female

1. Taking hormones to treat a hormone imbalance, endometriosis or a short menstrual cycle.
2. Taking medications to stimulate ovulation.
3. Using dietary supplement to stimulate fertility.
4. Taking antibiotics to remove an infection.
5. Having minor surgery to remove blockage or scar tissues from the fallopian tubes, uterus, or pelvic area.

## Ayurvedic management of infertility

**For Male:** There are many treatment methods and medicines used for the treatment of male infertility according to the aetiopathogenesis, in case of poor quality and quantity of sperm and semen. A specific group of medicine named as *Vajikarna* (aphrodisiac) plays a very important role to improve the quality and quantity of sperms in this group. Some medicines are as follows.

1. *Ashawgandha*
2. *Shatawri*
3. *Ghrita*
4. *Cheer*
5. *Mash*
6. *Shavet mushali* etc.<sup>[11]</sup>

Some *Panchkarma* procedures are also useful in the treatment of male infertility i.e., *Basti karma*, *Shiro dhara* for stress management, *Uttarbasti* for genital problems.

### For Female

In first part, three months treatment in three steps.

**Pachan-** For improvement of digestive system which is responsible for proper functioning of the drugs used for *Pachana*.

1. *Dushmoolarishta*
2. *Arogyavardhinivati*
3. *Shankhavati*
4. *Krumikuthan*

**Basti:** Administration of *anima* prepared with medicated oil and decoction through anal route. It helps to remove the toxins from the body and proved nourishment to the tissues.

**Pichu, Dhoopan, Uttrabasti:** These treatment procedures improve the functioning the ovary and uterus. Dietary supplements and life style modification are advised to the patient for improvement of overall health.

### CONCLUSION

Ayurvedic management of infertility is very effective to correct the different pathological condition responsible for infertility in both sexes.

Many cases of unexplained infertility and tubal block may be treated successfully with Ayurvedic medicines and treatment modalities. Although Ayurvedic treatment does not directly affect hormonal system but plays very important role to make their state of normalcy and equilibrium, which results into proper condition for fertilization.

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#### Cite this article as:

Shalini, Rashmi Joshi, V. B. Kumawat, D. N. Sharma, U. K. Sharma. The Scope of Ayurvedic Medicine and Therapy in the Management of Infertility. International Journal of Ayurveda and Pharma Research. 2018;6(10):87-90.

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

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