ABSTRACT:

Infertility is a problem of global proportions affecting on an average 8-12% of couples worldwide. Out of many causes of male infertility Oligospermia and Azoospermia are the leading causes. There is no satisfactory treatment in modern medicine for the conditions. Ayurveda is the better option for these conditions. In Ayurveda terms like Kshina shukra, Alpa retasa, Kshina retasa, Shukra dosha, Bijopaghata are indicating towards Oligospermia and Ashukara shandatva, Nirbeej, Abeej are indicating towards Azoospermia. In this article we are focusing on the management of Oligospermia and Azoospermia through Ayurveda.

Keywords: Azoospermia, Oligospermia, Nirbeej, Alpa retasa, Bijopaghata.

INTRODUCTION: Infertility is a problem of global proportion affecting on an average 8-12% of couples worldwide¹. A Centers for Disease Control and Prevention study analyzed data from 2002 National survey of family growth and found that 7.5% of all sexually experienced men, younger than age 45 years, reported seeing a fertility doctor during their life time – this equals 3.3-4.7 million men, out of these 18% were diagnosed with a male related infertility problem, including sperm and semen problem (14%) and varicocele (6%)². According to national women health information center the annual incidence of male infertility is at least 2 million cases. Recent studies have indicated that the prevalence of Oligospermia is extremely high in the metropolis as well as in smaller towns of India. Male infertility is considerably to be less complicated than female infertility, but can account for 30-40% of infertility³. Except for some physical defect, low sperm count and poor sperm quality are responsible for male infertility in more than 90% of cases. Out of these, in about 30-40% the cause is unexplained, and in rest of the cases critical illness, malnutrition, genetic abnormality, pollution, side effect of some medicine, hormone and chemical play major role⁴. Azoospermia defined as absence of sperm in the ejaculate; is identified in approximately 1% of all men and in 10% to 15% of infertile male⁵. The term Oligospermia is correlated in the research studies with Kshina shukra, Alpa shukra, Shukra dosha, Kshina retasa, Bijopaghata and Azoospermia is correlated with Nirbeeja, Abeej, Ashushkra shandatva in Ayurveda. Ayurveda considers health and disease both as the product of food and life style. A healthy lifestyle and healthy diet promote health and prevent disease. In this context Ayurveda provides better solution in the form of proper dietary management (pathya-apathyā), life style advice (Dincharya, Rutucharya), Panchkarma (Detoxification), Aahar-vihar, Yoga, Medicinal treatment for management of Oligospermia and Azoospermia.

AIM AND OBJECTIVE:
1) To study treatment of Oligospermia and Azoospermia in Ayurveda.
MATERIAL AND METHOD: This article is based on a review of Ayurvedic texts, material related to Oligospermia and Azoospermia and related Ayurvedic terms and treatment have been collected. The main Ayurvedic text used in this study are Charaka samhita, Sushruta samhita, Ashtanga sangraha, Ashtanga hridayam, Bhavaprakasha, Sharangdhara samhita and available commentaries on these. I have also referred to modern text and searched various websites, research articles to collect information on the relevant topics.

DISCUSSION: Oligospermia or synonymously Oligozoospermia is a condition in which sperm count is reduced. WHO (1992) describes the condition as the one in which total sperm count will be less than 20 millions/ml. (6) Major causes of Oligospermia: (7)
1) Congenital: cryptorchidism or descended testis.
2) Thermal: scrotal temperature should be less than 20 F than the body temperature
3) Infection: Syphilis, Non-specific urethritis, Mumps, Orchitis.
4) Genetics: Klinefelters syndrome and XX male syndrome are two genetic defects which lead to defective spermatogenesis.
6) Sexual: Too frequent intercourses decrease spermatogenesis and sperm cell activity.
7) Occupational: Environmental hazards like chemical nematocides, lead, microwave and ultrasound are responsible for oligospermia
8) Systemic diseases: AIDS, Renal failure, diabetes Mellitus, Vitamin A deficiency.
9) Addiction: Alcohol, Tobacco addiction.
10) Drugs: Antibiotic like Ampicillin, Erythromycin causes oligospermia.
11) Psychological: An increased stress condition produces low quality semen.

Azoospermia is a condition in which there is no sperm in man’s semen. Is a leading cause of male infertility and is found in 5-10% or up to 20% of men evaluated for infertility.(8) Major causes of Azoospermia:
1) Obstructive Azoospermia: Infection in testicles, Trauma to sex organ from surgery or Radiation.
2) Non-obstructive Azoospermia: genital injury, Varicocele, radiation, chemotherapy, use of steroid, antibiotic, alcohol, smoking, environmental factor like pesticides, heavy metals and extreme heat.

Investigations:  
1) Complete blood count, urine routine.
2) Ultrasonography.
3) Two semen sample analysis.
4) Physical examination.
5) Hormonal testing.
6) Genital tract imaging.
7) Testicular mapping.

Management through modern medicine:
Treatment varies according to cause. (9)
1) In obstructive Azoospermia-microsurgical reconstruction.
2) Anti-sperm antibody- immune-suppression by cyclic steroid.
3) Varicocele- varicocelectomy.(10)
4) Epididymal or vasal obstruction-vasovasotomy or vasoepididymostomy.
5) In obstruction of ejaculatory duct- Transurethral resection of ejaculatory duct (TURED).
6) Artificial insemination (A.I).
7) In vitro fertilization (IVF).
8) Gamete intra fallopian transfer(GIFT)
9) Zygote intra fallopian transfer (ZIFT).
10) Intra cytoplasm sperm injection (ICSI).(11)
Causative factors according to Ayurveda:
1. Ativyvaya (Excessive indulgence in sex).
2. Ativyayam (Excessive indulgence in exercise or over exertion).
3. Asatmya sevan (consuming unhealthy diet).
4. Akala maithun (untimely involvement in sex).
5. Ayonimaithun (masturbation).
6. Amaithun (abstinence).
7. Habituated to take Ruksha (Dry), Tikta (Bitter), Kashaya (Astringent), Atilavan (salty), Amla (Sour), Ushna (Hot) items.
8. Narinam arasadnyanam (lack of libido).
9. Jara (old age), Chinta (thinking always), Shoka (feeling sorrow), Bhaya (fear), Krodha (grief).
10. Vyadhikaran (Emaciation due to chronic illness).
11. Vegavarodha (voluntary control of natural urges).

Management according to Ayurveda:
Before starting treatment we should know normal characteristics and quantity of Shukra dhatu. Shukra has characteristic features like; Sphatika-abham (alum white), Dravam (gel like), Snigdham (viscid), Madhuram (sweet in taste), Madhugandhi (Honey odor).

1. Normal quantity of Shukra dhatu ½ Anjali (30ml).

Ayurveda bestowed Vrasya and Rasayana for the management of Shukra dosha and Shandatva. When causative factor associated with rasa dhatu, Rasayana is more useful and when associated with shukra dhatu, vajikarana plays major role.

1. Alpa retasa- Apyayana means nourishment. According to samanya-vishesha siddhanta(principle), two substances having the same properties increase quantity and quality both so here Gunas of Goghruta, milk product like Navnita, Dadhi, Milk, Mamsa resembles with gunas of shukra. So it nourishes shukra dhatu by quality and quantity both.
2. Dushta retasa-Prasadana. Prasadana means cleansing or detoxification. Here firstly needed is detoxification that is shodhana karma. Due to shodhana cleansing of dhatu takes place after that we give drugs which can do nourishment of shukra dhatu.
3. Kshin-retasa-upachaya spermogenesis e.g. Kapikachu has viryavardhaka effect.
4. Vishushka retasa-Janana-regeneration. Drugs having regeneration properties have Rasayna (Rejuvination) and Vrishya (Aphrodisiac) effect. E.g. Yashtimadhu, Musali. Treatment according to Dravyas:
1. Shukranaka- which nourishes rasaparinatashukra dhatu, these drugs have similar properties as shukra dhatu like Madhur Rasa, Snigdha, sheet, and guru gunas. There for it nourishes the shukra dhatu according to samanya-vishesh siddhanta. E.g. Mansa, Ghrita, Musali, Ashvagandha.
2. Shukrapravartaka-which helps in ejaculation e.g. Ucchata churna, Bhallataka phala majaa, Amalaka.
3. Shukranaka-pravartaka. These drugs used in genesis as well as have ejaculatory effect. e.g. go-ghrita, godhuma, mansa,
4. Shukrasthambhaka-Jatiphal claimed to control the ejaculation i.e., useful in case of premature ejaculation.e.g Nagarbala ,Ahiphen, Bhanga have virysthmbhaka properties.
Ahiphena due to kashaya rasa acts as viryasthmbhaka, Jatiphal due to its graahi karma act as viryasthmbhaka,
Nagbala due to kashaya rasa and stambhana karma act as virystambhaka. Klaibya samanya chikitsa:(17)
1) Shamana: a) Ahara: Shalidhanya, Godhuma, Mamsa, Kulatha, Milk, Coconut water, Ghrita, Dadhi, Navnita(butter), Kharjura, Amalaki phala, Pippali, Palandu, Lashuna, Gud-sharkara, Veshavara, Mamsarasa, Amla vilepi, Rasala, Saindhava all these ahara dravyas are shukrala, vrishya in nature.
   b) Vihara: Abhyanga, Vyayama, Snana, Nidra.
c) Aushadha: Shukarajanana e.g Mamsa, Ghrita, Shukrashodhana e.g Kshir yukta asthapanas, Trivrutchurnayukta ghrita for virechana, Balya e.g Mamsa, Brimhana e.g Ashwagandha, Vayasthapana e.g Amalaki are used.
2) Shodhana: It is essential to perform Shodhana procedure before administering the Vajikarana drugs. The vajikarana drugs shall be used only after strotoshuddhi and after the shareer is devoid of malas. Then only the brihana and balya effect of vajikarana is felt. It is clearly stated that without shodhana vajikarana treatment is of no use. Shodhana procedures mainly Virechana and Basti are described under the management of shukra doshas and klaibya. In Klaibya shodhana is advised after snehana and swedana.
   a) Virechana: Virechana is meant for shukra dosha and klaibya.
   b) Basti: Basti is stated as Kshina shukra vajikaroti. It is meant for shukra and artava dosha chikitsa. e.g. 1) Shukra basti(saindhava1/2 tola, honey8 tola, milk8 tola, ghee8 tola) 2) Kshira basti is given with Mamsarasa to increase shukra dhatu. 
   3) Yapana basti is specially indicated in shukra dosha and klaibya.(18)
4) Yapana basti with brihat panchmula will useful in shukrakshaya.
5) Guduchyadi niruha basti for viryavardhana.
6) Dalhana quoted that totally 18 Sneha basti are meant to cure Klaibya.(19)
7) Uttara basti will be useful in shukra dushti.(20)
Sahaja klaibya,Abhighataja klaibya conditions are Asadhya by medicinal treatment.(21)
CONCLUSION: As per above discussion we conclude that Ayurveda is better and economical treatment option for azoospermia and oligospermia cases. Ayurveda also states that some type of Klaibya is Asadhya or some are only treated by surgical treatment only.
REFERENCE:
2) http://www.cdc.gov/reproductivehealth/infertility/ (Infertility/Reproductive Health/CDC)
6) World Health Organization. WHO Laboratory Manual for the Examination of Human Semen and sperm Cervical Mucus

8) http://www.usmdmenshealth.com/cont/azooospermia-low-or-no-sperm-ejaculate.(USMD Health System Men Health)
9) http://emedicine.medscape.com/article/436829-treatment#d6. (Male Infertility Treatment and Management: Medical care, Surgical care, Consultation)

Corresponding Author: Dr. Ravi Bankatlal Joshi, M.D. Final Year, Rachana-Sharir Department, Hadpsar, Pune-28 E-Mail: dr.Ravijoshi8983@Gmail.Com

Source of support: Nil
Conflict of interest: None
Declared

Cite this Article as: Joshi Ravi Bankatlal et al : Management of Oligospermia and Azoospermia through Ayurveda