



A Holistic Approach for Oligospermia (Kshirn Shukra) - A Review Article

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Abstract

Infertility is still a major issue in our society because of change in natural habits, food habits and living style. Infertility means inability to produce offspring after 12 months of unprotected intercourse. Where societies do not respect an infertile person, it causes major loss of self confidence and other mental and physical problem to the concerned person. Almost 15% of world population is suffering from infertility where male infertility contributes to half of the reasons. Here we had thrown light on Male infertility specifically Oligospermia due to increased number of cases in past years. Oligospermia is called as *Ksheena Retas* or *Ksheena Shukra* in *Ayurveda*, which means low sperm counts or sperm counts less than 15millions sperm/ml of sperm. In this article we have discussed about the cause, symptoms and management of *ksheena shukra* as per *Ayurveda* context. The main objective is to rule out the causes, dig into *Ayurvedic* prospective and affordable *Ayurvedic* treatment of *Ksheena Shukra*. Numerous treatment is available in allopathic medicine field but no such desirable results have been achieved as most treatment is hormonal based which do not treat disorder from its roots. Classical *Ayurvedic* texts like *Charak samhita*, *Shushruta samhita*, *Ashtang Hridayam* etc, modern textbooks, journals and different websites have been taken for studying about literature aspect. After analyzing looking into all aspects, it was concluded that *Ayurvedic* herbs with properties like *sheeta*, *balya*, *vrishya*, *madhura*, *sheet virya*, *brihana* and pacifies *vata* and also therapies which pacifies *vata* like *basti* have great effect in treating *Ksheena shukra* which are easily available and affordable for all divisions of society.

Keywords: *Kshina Retasa*; Sperm; Andrology; *Vajeekarana*

Introduction

Failure to produce a clinical pregnancy after 12 months or longer of regular, unprotected sexual activity is a sign of

infertility, a disorder of the reproductive system. It affects public health over the world. Oligospermia is characterized by a low sperm count of less than 15 mil sperm/ml of semen [1]. An estimated 15% of couples worldwide struggle

with infertility [2]. Infertility in men may be brought on by poor sperm quality (lower motility/fewer sperm) [3]. The condition of *Kshina Retasa*, according to Acharya Sushruta, is Vata-Pitta predominance [4]. *Shukradoshas* is given the highest importance in the old Ayurvedic writings as the main cause of male infertility.

The Ayurvedic classics provide a thorough explanation of the Retasa test. Charaka categorized the analysis of *Dusta Retasa* into eight categories: *Phenila, Tanu, Ruksha, Vivarna, Puti, Picchila, Anya Dhatusamsrata*, and *Avsadi* [5]. According to Acharya Sushruta, the Shukra that has been vitiated by *Vata, Pitta, Kapha*, or *Kudapagandhi* (the stench of a dead body) or *Granthiyukta* or *Durgandhayukta* or *Puyamisrit, Kshina*, or *Alpamatrayukta* (the smell of urine and stool) is unable or unfit to reproduce naturally [6]. Low sperm count (Oligospermia) is a major cause of male infertility and is linked to *Kshina Retasa* in Ayurveda. *Kshina Retasa* denotes that, although being in *Madhyam Aayu*, the *Retasa* count will be lower than typical due to a variety of causes [7].

Need for the Study

Infertility is a social stigma that has an impact on psychological well-being, sexual life, and social function. The infertile couple's existence revolves on doctors and laboratory for regular check-ups. According to Acharya Charaka, a person without a child is like a single tree with branches devoid of fruits, shadows, and any nice odor. He is also thought to be an artificially painted light, a dried-up lake, or a faux metal with the look of a precious metal. He is identified as *Apratishtha* (not well established), *Nagna* (naked), *Shunya* (empty), has only one sense organ, and has lived a purposeless life [8].

Materials and Methods

- Classical texts in *Ayurvedic* and modern literature are reviewed.
- Various articles and databases in platform like PubMed, Medline, Scopus are reviewed.

Retas?

The term *Retasa* is derived from the Sanskrit root '*Ri Ksrane Riyate Ksarate Iti*', which means to flow. '*Re Gati Recanyoh Riyate Gacchati SariratVahati Maithunkale Iti*' means "the substance that flows out of the body during sexual intercourse." It is normal practice to use the terms '*Retas*,' '*Sukra*,' and '*Virya*' interchangeably. However, these terms were coined for a specific purpose; *Shukra* refers to the entire testicular and accessory gland secretion, i.e., semen and androgens. It is the seventh *Dhatu* of the body, representing the essence of all *Dhatu*, whereas '*Retas*'

represents the ejaculate (Semen) and '*Virya*' represents the potency. According to Acharya Sushruta, a flower bud emits scent only when it blossoms; yet, this does not imply that the bud is devoid of fragrance. Similarly, *Shukra* does not appear in childhood, but as one grows older, it appears, and this does not imply that *Shukra* is absent in childhood. *Shukra* is present in both male and female and is manifested in male by the appearance of hairs on the face and genital organs (secondary sexual characteristics) and in female by the appearance of menstruation. The term '*Veerya*' is used to describe potency, strength, or masculinity in general.

Differentiate B/W Healthy & Unhealthy Retasa

Quality of Shudha Retas

In nature, the best pure *Retasas* are *Snighda* (unctuous), *Ghana* (viscous), *Pichila* (slimy), *Madhura* (sweet), *Avidahi* (nonblazing), *Sweta*, and *Sphatika Sannibham*, according to *Acharya Charaka* [9]. Similarly, the properties of pure *Retasa*, according to *Acharya Sushruta*, are *Sphatikabham, Dravam, Snighdham, Madhuram, Madhugandhi, Taila Nibham*, and *Ksoudra Nibham* [10].

Unhealthy Retasa/Astadosha of Retasa

According to *Acharya Charaka*, the eight *Doshas* of *Shukra* are *Phenilam* (frothy), *Tanu* (slender), *Ruksha* (arid), *Vivarnam* (discolored), *Puti* (putrid), *Picchilam* (slimy), *Anya Dhatu Samsrata* (afflicted with other *Dhatu*), and *Avasadi*. *Vata* (dominance) is responsible for frothy, thin, arid, sparse, and uncomfortable ejaculation. As a result, damaged sperm is incapable of fertilization (*Garbha*). *Pittaa* affects purple or yellow discolored sperm with a putrid odor and ejaculation with a scorching feeling. *Kapha*-affected sperm is highly sticky and obstructs the sperm channel (ejaculatory duct) [11].

Inidan of Kshina Shukra

- Consumption of unsuitable food, Excess exercise, untimely ejaculation, consumption of dry, bitter, astringent, salty, sour, hot food, injury, morbidity producing vitiation of *Dhatu*, anxiety, distress, distrust, apprehension, rage, exorcism, *Dosha* individually or collectively reaching to *Retovahasrotas* lead to acute disorders of the *Shukra* (semen) [12].
- Any type of physical or emotional stress might result in Oligospermia.
- As there is an *Ayurvedic* fundamental concept for *Sapta-dhatu*, if the first *Rasadhatu* is not generated properly or in the correct amount, the successive *Dhatu*s will likewise be formed inappropriately [13].
- Due to *Shukravaha srotadusti*, i.e., sexual actions

at unsuitable hours and through non-vaginal tract, suppression of sperm discharge, excessive coitus, unawareness of female desire, senility, and improper surgical treatments, or if *Kshara* and *Agni karma* cauterization operations are provided.

Causes of Oligospermia (Modern View)

Following factors which may be responsible for Oligospermia are –

- Genetic abnormalities that cause faulty spermatogenesis include Klinefelter's syndrome and XX male syndrome.
- Addiction- Alcohol, tobacco.
- low testosterone, and high prolactin levels (Hormonal imbalance).
- Oligospermia is caused by occupational and environmental risks such as chemical nematocides, lead, microwaves, and ultrasound.
- Ejaculation backward into the bladder (Retrograde ejaculation).
- Infections that impair sperm production or health, such as Syphilis, Non-specific urethritis, Mumps, or Orchitis.
- Cryptorchidism or undescended testis.
- Varicocele [14]

Investigations

- General physical examination and medical history.
- Semen Analysis
- Routine examination of blood.
- Serum Testosterone, Serum FSH, Serum LH.
- USG Scrotum.
- Transrectal ultrasound.
- Genetic tests can be done [15]

Management of Oligospermia through Modern Medicines

- Anti-sperm antibody- Immune suppression by cyclic steroid
- Artificial insemination (A.I), In vitro fertilization. (IVF)
- Intra cytoplasm sperm injection [16]
- Varicocele- Varicocelectomy.
- TURED (Transurethral resection of ejaculatory duct)- In obstruction of ejaculatory duct.

Management of Ologospermia by Ayurveda

Ayurveda Mentioned *Vajikaranatantra* for the treatment of oligospermia, which included the use of *Rasayana* and *Vajikarana dravyas* (aphrodisiac medications) along with *Panchkarma*. Diet and lifestyle changes aid in conception and the production of healthy offspring. *Shodhana* has been prioritized as a prerequisite for *Vajikarana*. In case of

disease of *Shukra*, treatment with *Vajikarana* (aphrodisiac) and formulations that are *Raktapitta* Nashaka in nature is effective. Many traditional literature describe drugs for *Kshina Retasa*, and the basic principle is *Upachaya* (spermatogenesis) *Chikitsa*, which delivers *Viryavardhaka* effect, such as *Kapikacchuhu* [17-20].

Chikitsa According to Dosha

- If *Shukra* affected by *Vata* the *Niruha Basti* with *Anuvasana Basti* are advisable.
- If *Shukra* affected by *Pitta* the *Rasayana* is used such as *Abhayamalakeeyam*.
- If *Shukra* affected by *Kapha Dosha* then it will be treated with *Amrita*, *triphala*, *Loha*, *pippali* and *bhllatak rasayana*.

Shamana and Shodhana chikitsa

Following Herbs Most commonly used in ayurveda-

- *Ashawgandha* (*Withania somnifera*), which improves spermatogenesis through a testosterone-like action [20].
- *Yashtimadhu* (*Glycyrrhiza glabra*), it is *Shukrala* in Nature it improves Semen quality.
- *Gokshura* (*Tribulus terrestris*), It stimulates testosterone production by increasing luteinizing hormone and gonadotropin-releasing hormone [21].
- In Ayurvedic classics, *Shukrajanan*, *Shukrashodhaka* *Shukrapravartaka*, *Sukrasthambhaka* are also mentioned [21].

Ahara and Vihara

- *Ahara- Godhum, Shalidhanya, Ghrita, Amalaki, Pippali, Mamsarasa, Saindhava* all these are *shukrala, vrishya* in nature.
- *Vihara- Snana, Nidra, Vyayama, Abhyanga*.

Shodhana chikitsa

Before administering the *Vajikarana* drugs, the *Sodhana* procedures must be followed. It should only be utilized after *Sroto suddhi* and after confirming *Shareera* is free of *Malas*. Generally, *Virechana* and *Basti* are recommended for *Shukradoshas* management.

Conclusion

According to the literature, medicines with *Snighdha guna, Balya, Vrishya, and Vatasthapana* characteristics have a positive impact on *Kshina Retasa*. Similarly, several medications' *Madhura rasa, Sheetavirya, Vrishya, Brimhana, and Vatapittahara* characteristics help with *Kshina Retasa*. As a result, we may infer that the traditional Ayurvedic

method is a preferable therapy option for Kshina Retasa in the current environment

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