



AN AYURVEDIC PERSPECTIVE OF OLIGOZOOPERMIA:

A REVIEW ARTICLE

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ABSTRACT

Present scenario is excessively dominated by stress and lifestyle disorders so as brings lots of issues associated with health of individuals. One such burning issue which is gearing up continuously is male infertility. One of the most common cause of male infertility has been found to be Oligozoospermia which means semen with a low concentration of sperm. For many decades, sperm concentration of less than 20 million sperm/ml, low or Oligospermic but recently WHO has reassessed sperm criteria and established a lower reference point, less than 15 million sperm/ml. Other than sperm count physical examination of semen is also essential which includes observation of its volume, colour, turbidity, liquefaction, viscosity, morphology and mortality. As per Ayurveda, Oligozoospermia can be correlated to *Ksheen Shukra*. *Shukra* is considered as one of the seven *Dhatu*s and assigned with the function of bestowing the progeny. Even though none of the standard *Ayurvedic* Texts have mentioned about the count of sperm or it's motility but clearly mentioned the quality of semen in the form of "*Shuddh Shukra Lakshanas*". According to *Acharya Sushrut Shuddh Shukra* is White as *Sphatik*, *Drava*, *Snigdha*, *Madhura* and smells like Honey. For ruling out the cause of infertility *Shukra Dhatu* is examined and observed in Semen Analysis.

Keywords: Oligozoospermia, *Ksheen Shukra*, *Shuddh Shukra Lakshanas*.

INTRODUCTION: Infertility is a problem of global world affecting on an average 8-12% of couples worldwide. Low sperm count (oligozoospermia) is one of the main causes of male infertility and it is correlated with *Ksheen Shukra*. Infertility is defined as the inability to achieve pregnancy after one year of unprotected coitus. Male infertility is considered to be less complicated than female infertility, but can account for 30 -40% of infertility. Except for some physical defects, low sperm count (Oligozoospermia) and poor sperm quality are responsible for 90% of the cases. Oligozoospermia means decreased count of sperms. Etymological origin of the word OLIGOZOOSPERMIA

is as:Oligo (few)+Zoo(live)+Sperm+Ia(condition).

According to Ayurvedic Literature, human body is made up of *Sapta Dhatu*s and *Shukra Dhatu* is seventh among *Sapta Dhatu*¹. Among *Sapta Dhatu*, *Shukra Dhatu* is considered as the *Saar* of all other *Dhatu*s. There is no clear description of Sperm in *Ayurveda* but there is description of four basic components responsible for fertility i.e. *Ritu*, *Beej*, *Kshetra*, *Ambu* out of which *Beej* can be correlated with sperm. Various *Acharyas* have given the qualities of *Shuddha Shukra* and the pathological conditions of *Shukra Dhatu* have been elaborated under the name *Shukra Dushti*. *Acharyas* have

described the qualities of *Shukra* as *Spatikabha*², *Madhugandhi*, *Drava*, *Picchila*, *Avisra*, *Madhura* and *Snigdha*. *Shukra Dushti* are eight different types of seminal pathologies mentioned in the classics. Semen Analysis is an investigation carried to assess the fertility of an individual and the findings in the analysis are the causes which lead to infertility. *Ksheen Shukra* is one of the eight *Shukra Dushti* mentioned in our classical texts and it's study is an important part to study the *Dosha* involvement in *Shukra Dushti* and *Ksheen Shukra*.

AIMS AND OBJECTIVES:-

- To study the concept of *Shukra Dhatu* in detail and to compare, evaluate data available on *Shukra Dhatu*.
- To study the Ayurvedic aspect of Oligozoospermia i.e. *Ksheen Shukra* as mentioned in our Classical texts.

MATERIALS AND METHODS:

- All classical texts available in Ayurvedic Literature were reviewed.
- Various research articles and manuscripts on *Ksheen Shukra* were thoroughly reviewed.
- Literary data collected were compared and analysed on classical background to

find similarities, dissimilarities and its classical approach in accordance to modern science.

Literary Review: The term *Ksheen Shukra* comprises of two word *Ksheen* and *Shukra*. The term *Ksheen* is derived from “*Kshi+kla*”. This has got the meanings like *Sukshma*, *Abala*, *Durbala*, *Kshama* and *Tanu*. The word *Shukra* is derived from the Sanskrit Root “*Suc-Klede*” meaning purity, Literally, *Shukra* means the one which is in pure state, bright and white.

Nirukti and Paribhasha of Ksheen Shukra:

Ksheen Shukra is a condition is a condition in which there is *Swamanaat Alpeebhuta Shukra*. The condition in which the quantity of *Shukra* is *Alpa* is termed as *Ksheen Shukra*.

Paryaya of Ksheen Shukra. *Acharya Sushrut* and *Vagbhata* have used the term “*Ksheen Retas*” as a synonym of *Ksheen Shukra*.

Definition of the term Oligozoospermia:

According to *Butterworth's Medical Dictionary*, Oligozoospermia is defined as a condition in which too few spermatozoa are present in the semen. Whereas WHO 2010 Oligozoospermia as the condition where the sperm concentration is less than 15 million/ml of semen.

Table No 1. Asht Shukra Dushti According to Acharya Charak and Sushrut:-

<i>Acharya Charak</i> ³		<i>Acharya Sushrut</i> ⁴	
<i>Dosha</i>	<i>Shukra Dushti</i>	<i>Dosha</i>	<i>Shukra Dushti</i>
<i>Vata</i>	<i>Phenil</i>	<i>Vata</i>	<i>Vataja</i>
	<i>Tanu</i>	<i>Pitta</i>	<i>Pittaj</i>
	<i>Rooksha</i>	<i>Kapha</i>	<i>Kaphaj</i>
<i>Pitta</i>	<i>Vivarna</i>	<i>Rakta</i>	<i>Kunapgandhi</i>
	<i>Puti</i>	<i>Sleshma Vata</i>	<i>Granthibhuta</i>
<i>Kapha</i>	<i>Picchila</i>	<i>Pitta Shleshma</i>	<i>Putipuya</i>
<i>Raktadi Dhatu</i>	<i>Respective Dhatu Samskrushta</i>	<i>Pitta Vata</i>	<i>Ksheen</i>
<i>Vata Kapha</i>	<i>Avsadi</i>	<i>Sannipata</i>	<i>Mutrapurish Gandhi</i>

Samprapti Ghatak of Ksheen Shukra:-

Dosha: - Tridosha especially Vata Pitta

Dhatu: - Rasa, Shukra

Strotas: - Rasavaha, Shukravaha

Agni: - Jatharagni, Dhatwagni

Ama: - Jatharagni Janya, Dhatwagni Janya

Strotodushti: - Sangha

Adhishthana: - Medra, Vrishana

Vyakt Sthan: - Shukra, Vrishana, Medra

Rogamarga: - Madhyam

Vyadhiswabhaba: - Chirkari

DISCUSSION: Shukra Dhatu is the last dhatu sequentially even in the terms of its production and therefore is considered as the *Saar Bhaag* of all other six Dhatus. It's the essence of all Dhatus hence its level in body has to be maintained very carefully by consuming nourishing foods and leading a healthy life. At present there are many causative factors which ultimately leads to a very crucial issue that is Oligozoospermia a sort of male infertility which is ruled out by Semen Analysis. Causes of this severe problem has been found out to be:-

- Drugs, Alcohol, Smoking.
- Strenuous riding(bicycle riding, horse riding)
- Medication including androgens
- Obstruction in Vas Deferens
- Infection – eg. Prostatitis.
- Ejaculatory duct obstruction.
- Thermal causes
- Environmental factors.

Ayurveda has mentioned and elaborated about Shukra Dhatu, it's Guna, Dushti and Kshay. Modern Science has explained the Physical examination of semen which can be seen in Ayurvedic Classics too.

• **Volume:-** The normal volume of seminal fluid ranges between 2 ml and 6 ml per ejaculation. Any semen sample which measures below 1.5 per ejaculation is due to morbid Vata in Vataj Shukra Dushti.

• **Colour and Turbidity:-** Shukra is Shweta or of the colour of Sphatika (alum). Semen is normally translucent or whitish-gray opalescent in colour. The presence of blood in semen is abnormal and it points towards Rakt Dhatu Upsrusht Shukra Dushti.

• **Semen acid-base balance (pH):-** The pH of normal semen is slightly alkaline ranging from 7.2-7.8. The Avidahi quality of Shukra can be affected if pH of the semen sample is on the acidic side making the sample Vidahi.

• **Liquefaction:-** Semen is normally produced as coagulum. Semen specimen will usually liquefy within 60 minutes. The failure to liquefy within one hour is abnormal showing signs of Kapha Dosha.

• **Viscosity:-** Non-liquefaction and excessive viscosity are two separate conditions. The character of semen with excessive viscosity may be because of kaphaj Dhushti (Sushrut) or avsadi i.e. Vata Kaphaj (Charak) type of Shukra Dushti.

• **Sperm Count:-** According to WHO Guideline Manual for the Examination and Processing of human semen, 2010 says more than 15 million/ml of sperm cells per ejaculate is said to be normospermic less than this is said to be Oligozoospermic⁶ i.e. Ksheen Shukra. Mild Oligozoospermia⁷ is 10 to 15 million sperm/ml. moderate is 5 to 10 ml sperms/million and severe Oligozoospermia is diagnosed when sperm

count falls between 0 to 5 million sperm/ml.

• **Morphology:** - A normal sperm has a smooth oval shaped head i.e. 5-6 micrometres long and 2.5 to 3.5 micrometres broad. Any change in it's morphology is due to morbid *Vata* and *Kapha Dosha*.

Acharyas in *Brahad Trayee* has mentioned symptoms of *Ksheen Shukra* as follows:-

- *Daurbalya*⁸:- Weakness
- *Mukhshosh*:- dryness of mouth
- *Pandutva*:- Pallor
- *Sadan*:- Flaccid body
- *Shram*:- fatigue
- *Klebya*:- Loss of libido
- *Medra Vrishan Vedana*⁹:- Pain in penis and Scrotum
- *Ashakti Maithun*:- Not able to perform well during sexual intercourse
- *Chirat Prasek*:- Post mature ejaculation
- *Alp Rakt Shukra Darshana*: - Blood mixed with semen is ejaculated sometimes.

According to Modern System of medicine Oligozoospermia represents following signs and symptoms:-

- Problems with sexual function- eg- low sex drive or difficulty in maintaining erection⁸.
- Loss of Libido
- Generalised weakness
- Fatigue
- Pain, swelling or lump in the testicle area.
- Decreased facial or bodily hair

These are much like mentioned in our classical texts and can be easily managed by various *Vajikaran* Medicines and Therapies mentioned in *Samhitas* with improvement in lifestyle i.e. following proper *Ahara* and *Vihara*.

CONCLUSION:

Shukra Dhatu is an important part of Human Physiology which needs to be maintained and preserved as it is responsible for progeny which is the most essential part of life. When *Shukra Dhatu* lacks it's quality and possess any sort of *Shukra Dushti* it generates obstacles in the progeny and embarrasses a man socially. Hence it is of utmost importance and must be taken care of that it is present in proper proportion and bears it's best quality. Oligozoospermia, i.e. *Ksheen Shukra* is an accelerating issue of the present world and there is a need of an hour to seriously combat with this problem because it disturbs the physical as well as mental well-being of individuals. The conceptualised study is to understand what exactly it is and to get rid of it with various methods quoted by *Acharyas* in our classical texts.

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