



## Case Study

### OLIGOSPERMIA: A CASE STUDY

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### ABSTRACT

Sexual health is also as important as good physical health. One should never feel shy to share their sexual problems. Sometimes these problems ruin self esteem and social life. There is nothing bad to talk about sex problems and relationships because these complications can become the reason of frictions in married couples. Oligospermia tends to have no effect on sexual function. Men may not know they have this unless they are having trouble in conceiving with a partner. Oligospermia has been diagnosed with low sperm count after doing a semen analysis. Oligospermia is one of the major leading causes of infertility. According to Ayurveda, Anatomical and physiological variation in *Shukra Dhatu* leads to infertility there is no direct correlation of oligospermia but we can correlate it with *Shukra Kshaya*. There are various herbs and natural compounds in Ayurveda which are quiet beneficial to treat this problem.

In this case we use combination of some Ayurvedic drugs - (*Siddha Makar Dwaj+Putrajeevak beej+Shivalingi beej + Chandraprabha vati* ) along with lifestyle modifications were used. As *Apana vayu* is responsible for proper expulsion of *Shukra*, so medicines are given at *Apanakala*. It shows significant improvement in sperm count and motility, and improvement in erection dysfunction and sexual desire.

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### INTRODUCTION

Oligospermia<sup>[1]</sup> means a condition of reduced number of sperm cell spermatozoa. Oligospermia, may also show significant abnormalities in sperm morphology and motility.

According to WHO 2010 criteria sperm concentration should be less than 15 million spermatozoa per millilitre<sup>[2]</sup> sterility in male is responsible for infertility of approximately half of all childless marriages. Approximately, 20% couples attempting their first pregnancy meet with failure. Most authorities define these patients as infertile if they have been unable to achieve a pregnancy after one year of unprotected intercourse.<sup>[3]</sup> According to WHO, 60-80 million infertile couple are found worldwide while in India 10-15% in the productive age group are infertile in which 25% are male.<sup>[4]</sup> In Ayurveda sperm is called as *Shukra* or *Pumbija* which considered as one of *Dhatu* of "*Saptawidhdhatu- Siddhant*". Male infertility is considerably to be less complicated than female

infertility, but can account for 30-40% of infertility. Except for some physical defects, low sperm count (Oligospermia) and poor sperm quality is responsible for male infertility in more than 90% of cases.<sup>[5]</sup>

In approximately 40% of cases pathology is found in the male alone and in another 20% both males and females found with abnormal pathology. Out of these in about 30% to 40% the cause is unexplained, in rest of the cases critical illness, malnutrition, genetic abnormalities, pollution, and also side effects of some medicines, hormones and chemicals are responsible. In short, it is not the number but the quality of the sperms is more important in fertility.

### Male Infertility<sup>[6]</sup>

The following points need to considered while studying male infertility.

- Volume of semen

- Sperm count- oligospermia, azoospermia, necrospermia.
- Motility of sperm.
- Structural defects of sperms- Due to vitiated *Vata dosha*.
- Any obstruction in genital tract.
- Erectile dysfunction

**Causes<sup>[7]</sup>**

Obstruction of the normal flow of sperm due to such conditions as testicular trauma and vasectomy. Scarring due to surgery on the male reproductive system or from infection and sexually transmitted diseases. Decrease in sperm production due to such conditions as Varicoceles (Varicose veins around the testes), hormonal disorders, diseases of the testicles, and obesity. Stress, smoking, drug or alcohol use, some medications, exposure to some toxins, malnutrition and being underweight. Some sexually transmitted diseases, such as Chlamydia and Gonorrhoea. If the male suffer from low sperm count achieving pregnancy naturally maybe a challenge.

As per Ayurveda, oligospermia can be correlated with *Shukra Kshaya*. There is no direct correlation with low sperm count and motility but they clearly mentioned in the form of *Shuddha Shukra Lakshanas*.<sup>[8]</sup>

In Ayurveda, healthy semen (*Shuddha shukra*) which is more fertile is described as “*shukram shuklam guru snigdham madhuram bahulam ghritamaakshikatailabham sadgarbhaya* ||” <sup>[9]</sup> A. H. Sha. 1/17

This means the semen which is white, heavy, sticky, sweet in taste, more in quantity and which may look like the color of ghee or honey or oil is always fertile.

Nature always doing better for all living beings but vary due to present lifestyle, because there is drastic change in day to day activity including mental stress, disturbed daily routine, food habits, sexual life, meditation, environmental pollution, industrial and occupational hazards and this changes have adverse effect on *Shukra Dhatu* which leads to infertility. According to Ayurveda, *Shukra* is the terminal tissue or *Dhatu*. It is considered as *Sara* of all other *Dhatu*. Any variation

in *Shuddha shukra lakshana* leads to *Shukra Dushti*. While describing the *Dushti* associated with *Shukra* and *Artava*, *Kshina shukra* is a pathological condition caused by vitiated *Vata* and *Pitta*. Oligospermia oligo azoospermia resembles with *Kshina Shukra* is a condition in which sperm count is gets reduced both qualitatively and quantitatively

**Case Report**

A 28 years old male patient with normal BMI reported for treatment of incomplete erection, premature ejaculation, decreased sexual desire, general debility and fatigability since 3 years. Personal history revealed that he worked in company as a supervisor, no habits of tobacco, drinking occasionally, no major stress. He was not having past medical history of tuberculosis, mumps, orchitis, hydrocele, trauma to gonadal part or History of any other long-term debilitating disorder or life threatening emergency, he was not having history of previous surgical intervention like herniorrhaphy, vasectomy reconstruction and no history of consumption of gonadotoxic agent. Patient was married since 4 years and the couple wanted an issue. His wife failed to conceive inspite unprotected frequent intercourse even during 12 to 18th day of menstruation since last 3 years. The woman was normal at the clinical and endocrinological examination. No other parameters except sperm count, motility and morphology were altered in the male subject. He was advised semen analysis after proper abstinence. Before starting medicine semen examination report revealed very low sperm count 8 millions/ml out of which about 10% sperms were motile and 30% sperms were sluggishly motile while 60% were non-motile. 15% sperms were abnormal. Smear showed 2-3 pus cells.

Semen analysis was performed at baseline and after 3 and 6 months of therapy, which consisted of Ayurvedic drugs - *Siddha Makar Dwaj*<sup>[10]</sup>+*Putrajeevak Beej+Shivalingi Beej+ Chandraprabha vati* were used. After medicine semen examination report revealed sperm count-48 millions/ml out of which about 30% sperms were motile and 30% sperms were sluggishly motile while 40% were non-motile. 13% sperms were abnormal. Smear showed no pus cells.

**Table 1: Examination of Seminal Fluid**

Test	Before Treatment	After Treatment
Method	Masturbation	Masturbation
Abstinence	3 days	4 days
Collected At	09:35 A.M	11:45 A.M

Examined At	09:55 A.M	12:05 P.M
<b>Physical Examination</b>		
Quantity	2.00ml	2.50ml
Colour	Grey White	Grey White
Odour	Normal	Normal
Viscosity	Viscid	Viscid
Liquefaction	Within 20 min.	Within 20 min.
Reaction (pH)	Alkaline	Alkaline
<b>Microscopic Examination</b>		
Total Sperm Count	08 mil/ml	48 mil/ml
Sperm Motility		
Actively Motile	10%	30%
Sluggishly Motile	30%	30%
Non-Motile	60%	40%
Abnormal Forms	15%	13%
<b>Other Abnormalities</b>		
Pus Cells	2-3	Absent
R.B.C Cells	Absent	Absent
Epithelial Cells	Absent	Absent

Advice of diet and lifestyle changes was given. Have sex less often maintain a gap of three days between two consecutive ejaculations.

Avoid the habits like smoking, alcohol consumption etc. Alcohol affects liver function, which in turn causes a dramatic rise in estrogen levels. Even two drinks a day will have long-term effects on sperm production. Exercise regularly. Take a diet that's low in fat and high in protein - vegetables and whole grains are good for reproductive health. Avoid bitter, astringent and spicy foods. Reduce caffeine intake. Avoid heat of testicles - wear loose, cotton boxer shorts, avoid hot baths and saunas lose excess weight, which tends to cause testosterone/estrogen imbalance. Reduce stress levels by relaxation techniques i.e., with the help of yoga and meditation. Massage body which improves blood circulation.

An additional semen analysis was performed 1 month after the termination of therapy (wash-out period). During the 6 months semen parameters improved drastically.

#### DISCUSSION

*Kshina shukra* is a disease associated with male reproductive system. Here *Shukra dhatu* is vitiated both qualitative and quantitative impairment is seen. To find out effective remedy to increases the sperm count *Siddha Makar Dwaj+Putrajeevak beej+Shivalingi, beej+ Chandraprabha*

*vati* is used in management of *Kshina shukra* (Oligospermia).

*Makar Dwaj* is used to increase the sexual power and also improve semen quantity. *Siddha Makar Dwaj+Putrajeevak beej+Shivalingi beej+ Chandraprabha vati* has *Madhura rasa* (sweet), *Guru* and *Snigdha guna* (heavy quality), *Sheeta virya* (cold in potency), *Vrushya* (aphrodisiac), and *Rasayana* and *Vatapittahara* properties. *Vatapittahara karma* is very useful in cases of *Kshina shukra* as it is *Vata* and *Pitta* predominant disease. However *Madhura rasa* and *Snigdha* and *Guru guna* increases the *Shukra dhatu* qualitatively and quantitatively. *Siddha Makar Dwaj+Putrajeevak beej+shivalingi beej+ Chandraprabha vati* is known for its utility in *Mutravaha strotas* by correction of *Apana Vayu* its action on the *Shukra* also along the line similar to how *Shukra visarga* is governed by *Apana vayu*.

#### RESULTS

Total duration of treatment was 6 months. Initial sperm count was 8mill/ml, out of which about 10% sperms were motile 30% sperms were sluggishly motile while 60% were non-motile. 15% sperms were abnormal. Smear showed 2-3 pus cells. After medicine semen examination report revealed sperm count-48millions/ml out of which about 30% sperms were motile and 30% sperms were sluggishly motile while 40% were non-motile. 13% sperms were abnormal. Smear showed no pus

cells. Sperm count drastically improved. Being sperm count increased and motility was excellent forward progressive, 'Garbhadhan' occurred after 3 months of treatment.

#### CONCLUSION

Ayurvedic drugs are key to clinical success. Mere *Shukra Vardhan Chikitsa* is not effective, rather one has to think about other factors like *Paandu, Upadansh, Shukragat Vaat Chikitsa, Avaran Chikitsa, Sthoulya Chikitsa*.

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