Efficacy of Shrungatak Modak and Jatifal Oil in Ksheenshukrata w.s.r. to Oligospermia – A Single Case Study

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ABSTRACT

Infertility is defined as the failure of a couple to achieve a pregnancy with regular unprotected sexual intercourse after 12 months or more. A recent study status on Infertility states that, 50% is related to reproductive anomalies or disorders in the male, in which 90% of male infertility problems are related to Oligospermia and other abnormalities in semen analysis. However, there are number of treatments like hormonal therapies, intrauterine Insemination and test tube baby. Available but it is cost effective and not surety is there. That is the reason today to explore Ayurveda are mediator to treat this type of condition. As per Ayurveda, Oligospermia can be considered as Ksheenashukra. In Ksheenashukra there is diminished level of Shukra in the infertile couples. In Ayurvedic texts many herbal preparations mentioned in management of Ksheenashukra. Here a Single case were taken to evaluate the effectiveness of Shrungatak Modak to treat a Ksheenashukra.

Key words: Shukrakshya, Ksheenshukra, Oligospermia, Shrungatak Modak

INTRODUCTION

Infertility is the failure to conceive more than 12 months with regular unprotected intercourse.1 Infertility is problem of global proportion affecting an average of 8%-12% of couples worldwide.2 Parenthood is one of the most desired goals of every couple. A sexual health is also as important as good physical health as well mental health. We should never feel shy to share our sexual problems. Sometimes these problems may ruin self and social life. There is nothing bad to talk about these problems and relationships because these complications can become the reason of frictions in married couples.

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 Ksheenashukra. In Ayurvedic texts many herbal preparations mentioned in management of Ksheenashukra. Here a Single case were taken to evaluate the effectiveness of Shrungatak Churna to treat this problem. In this case we use combination of Shrungatak Churna with Mishree along with Jatifal Tail Uttarbasti as well as lifestyle modification were added. As Apana Vayu is responsible for proper expulsion of Shukra, so medicines are given at Apanakala. Shrungatak churn orally said to be Vrishya, hence can be considered as one of the ideal treatments for Shukradosha. It shows significant improvement in sperm count and motility.

OBJECTIVES

1. To evaluate effect of Shrungatak Churna on Ksheenashukra (Oligospermia).
2. To evaluate effect of *Jatiphal* oil *Uttarbasti* on *Ksheenashukra* (Oligospermia).

**MATERIALS & METHODS**

Type of study - It was a single case study

**Inclusive criteria**
1. Willing for conception
2. Oligospermia more than 10 million count
3. Asthenospermia

**Exclusive criteria**
1. Azoospermia
2. Oligospermia less than 10 million count
3. Any venereal disease - VDRL positive, HIV positive, HbsAg
4. Endocrine disorder

**Drug used - Shrungatak Modak**

Dose - 1 Modak (2gm) BD

Route of administration of drug - Orally

Time - Daily BD for 25 days in a month

Duration - For 1 month

**Jatiphal oil - Uttarbasti**

Dose - 10 ml for 3 continuous days and repeat after 25 days

Route of administration of drug - *Uttarbasti*

Duration - For 1 month

Follow-up of patients - On every 25th day of month for 1 month have been taken.

**CASE REPORT**

A 26-year-old male patient belong to lower middle class of the society from urban area Nashik came to SSAM & H Streeroga OPD with complaint of unable to conceive his partner since 5 years of his married life. After taking full history, the patient was advised to investigate for semen analysis. Once report came with 2 million/ml sperm count, patient was asked to report for 3 times after 3 days of coital act Absence. After the investigation and proper history, patient was diagnosed with *Ksheenashukra* (Oligospermia) [Table 1.] The patient was treated with *Uttarbasti* for 1 month with *Jatiphal* tail along with *Shrungatak Modak*. After that patient was investigated again for Semen Analysis and was kept under observation with advice of *Pathya-Apathya* (diet lifestyle modification) for further period.

**Chief Complaints**

The patient had 5 years of his married life and active normal coital act without any contraceptive use, unable to conceive her partner since 4 years. The patient’s wife was completely normal at endocrinology and clinical examination. She had failed to conceive inspite of unprotected frequent intercourse even during the 12th to 18th day of menstruation since last 4 yrs. The patient had habit of smoking since last 5 years and also a habit of taking alcohol weekly. By occupation patient was working as sales manager in shifting duty. The patient had not any past medical history of mumps, gonadal trauma, orchitis, hydrocele, tuberculosis, or history of any other long term attenuating diseases, or deathly illness. He did not have any history of previous surgical procedures like vasectomy reconstruction, herniorrhaphy and no history of taking any gonadotoxic agent. No other parameters except sperm count was altered within the male patient. The patient was advised analysis of semen after proper abstinence of 3 days. Before starting the medicine, the semen examination report revealed 45 million/ml sperm count. Smear showed 3-4 pus cells, 1-2 HPFE epithelial cells, no RBC cells.

**General Examination**

On examination of patient, pallor was absent; tongue was clear, and vegetarian in diet style. The patient appetite was good and usually prefers a salty and spicy diet, also bowel habits were irregular with complain of constipation. Patient had disturbed sleep and frequency of micturition was 6-7 times in day and 1-2 times in night time.
Table 1: Timeline events

<table>
<thead>
<tr>
<th>Duration</th>
<th>Particular and interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 2018</td>
<td>Married</td>
</tr>
<tr>
<td>March 2018-2023</td>
<td>Unable to conceive the partner</td>
</tr>
<tr>
<td>February 2023</td>
<td>Repetitive clinical and endocrinological examination of wife was done and found normal.</td>
</tr>
<tr>
<td>February 2023</td>
<td>First visit in SSAM &amp; Hospital Streerog OPD</td>
</tr>
<tr>
<td>2 March 2023</td>
<td>Investigate for semen analysis and report came with 45 million/ml sperm count.</td>
</tr>
<tr>
<td>3 March 2023</td>
<td>Treatment starts with Ampachan, Ampachak Vati 2 tab (500 mg each) two times a day with Ushnodaka before meal till Niramlakshana appears.</td>
</tr>
<tr>
<td>7 March 2023</td>
<td>Kosshhasudhhi - Gandharva Haritaki Yoga 2-6 gm dose according to Kostha in stat dose for one night</td>
</tr>
<tr>
<td>8 March 2023</td>
<td>Jatiphal Oil Uttarbasti 10 ml, once in a day</td>
</tr>
<tr>
<td>9 March 2023</td>
<td>Shrungatak Modak were started to patient orally</td>
</tr>
<tr>
<td></td>
<td>Matra - 1 Modak 2gm BD.</td>
</tr>
<tr>
<td>13 April 2023</td>
<td>Investigate 2nd time for semen analysis and report came with 60 million/ml sperm count.</td>
</tr>
<tr>
<td>May 2023</td>
<td>Patient’s wife first UPT test was found positive after 10 days of her missed period.</td>
</tr>
</tbody>
</table>

**Purvakarma**
- Before the procedure patient should passed urine
- General examination of patient was done
- Supine position
- Painting and draping were done

**Pradhankarma**
- Penis skin was retracted Glans penis was cleaned with disinfectant to avoid infection
- Medicated oil was applied on tip of feeding tube.
- Feeding tube was penetrated into the penile urethra.
- Feeding tube was gently passed into the bladder.
- Oil was slowly inserted into the bladder.

**Paschatkarma**
- Patient was in supine position for 10–15 minutes.
- Lower abdomen massage was done for few minutes.
- NBM for 2 hrs, after 2 hr plenty of water, juices are advised.

**Drug Posology**
1. **Ampachak Vati** - 500 mg - 2 tab, BD with Anupan - Ushnodak
2. **Gandharva Haritakyadi Yoga** - 2-6 gm according to Kostha in stat dose for one night
3. **Jatiphal oil** - 10 ml, once in a day

**Drug review**

Chemical Constituents of Shrungatak\[^6\]
- Starch, protein, calcium, carbohydrates, phosphorus

**Drug Action:** Vrushya, Prajasthapana, Balya, Pittashamak, Daahprashaman, Stambhan, Raktapittashamk, Mutral \[^7\]

**Drug properties\[^8\]**
- Rasa - Madhur, Kashaya;
- Guna - Laghu, Ruksha;

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\[^6\]: Starch, protein, calcium, carbohydrates, phosphorus
\[^7\]: Vrushya, Prajasthapana, Balya, Pittashamak, Daahprashaman, Stambhan, Raktapittashamk, Mutral
\[^8\]: Rasa - Madhur, Kashaya; Guna - Laghu, Ruksha;
Virya - Sheeta;
Vipak - Madhur

Pathya-Apathya advised to patient

Pathya
Patient was advised to take milk and milk products, cowghee, and gruel in routine diet. He was also advised to include red variety of rice, wheat, banana, coconut milk, supernated part of butter milk, Sharkara, castor oil, honey and old jaggery in his diet. Patient was also advised to do massage over body, Surya Namaskara, light exercises, meditation and Yoga on daily basis.

Apathya
Patient was asked to avoid excessive intake of pungent, bitter and salt in routine diet. Patient should ask to avoid stress, worry, excessive exercise, excessive coital activity and suppression of natural urges.

RESULT
Result of this case report show that after performing Jatiphal Oil Uttarbasti followed by internal medication Kshrungatak Modak, sperm count increased 45 million/ml to 60 million/ml

<table>
<thead>
<tr>
<th>Investigation</th>
<th>On March 2023</th>
<th>On April 2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method</td>
<td>Masturbation</td>
<td>Masturbation</td>
</tr>
<tr>
<td>Abstinence</td>
<td>3 days</td>
<td>3 days</td>
</tr>
<tr>
<td>Collected at</td>
<td>9:00 am</td>
<td>10:00 am</td>
</tr>
<tr>
<td>Examined at</td>
<td>9:20 am</td>
<td>10:20 am</td>
</tr>
<tr>
<td>Physical examination</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantity</td>
<td>1.0 ml</td>
<td>2.0 ml</td>
</tr>
<tr>
<td>Colour</td>
<td>Grayish white</td>
<td>Grayish white</td>
</tr>
<tr>
<td>Odor</td>
<td>Normal</td>
<td>Normal</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Normal</td>
<td>Normal</td>
</tr>
<tr>
<td>Liquification</td>
<td>20 min</td>
<td>15min</td>
</tr>
</tbody>
</table>

**PH** Alkaline Alkaline
**Fructose** Present Present
**Microscopic Examination**

| Total sperm count | 45 million/ml | 60 million/ml |
| Progression/forward motility | Grade 0- 30%| Grade 0- 20% |
|                          | Sluggish motile-40%| Sluggish motile-30% |
| Total motility          | 30%            | 50%           |
| Pus cells               | 4-6/ Hpf       | 2-4 Hpf       |
| RBC Cells               | Nil            | Nil           |
| Morphology              | Normal         | Normal        |

DISCUSSION

Ayurveda is an ancient science that dates back to that times when modern medicine even did not exist. The science aims at improving the overall health of a person as well as solves the infertility problems. Ayurvedic medicines and therapies balance the hormones; improve blood circulation and acts on the nervous system. These results can be attributed to Vrushya effect of Shrungatak Modak for the study. The ultimate aim of treating Oligospermia or may be any case of infertility is to get conception. Though the duration of the treatment was less in the study, it was very pleasing to hear that couple achieved conception after the treatment in variable period of time.

Effect of Jatiphal Oil Uttarbasti

Ayurveda philosopher had mentioned Shaman and Shodhan Chikitsa for the treatment of infertility. Panchakarma provides best efficacy because it helps in balancing Doshas and Dushyas. Uttarbasti is such type of therapy being indicated for infertility. Cleansing action of Uttarbasti clears the genital passage and restores the functions. The Sneha Basti administered in Uttarbasti will be having a supportive role. They are nutritive in function and will improve the blood circulation, nerve conduction and immunity of the
organs. Ayurveda specifically mentioned Uttarbasti for Shukra Doshas. Therefore, drugs that are administered in Basti form are said to enhance the quality and quantity of Shukra. The line of treatment of Ksheenashukra should be based on Vrishya drugs having Shukravriddhikara properties. So, Jatiphala oil is selected which is particularly Vrinishyakar. Jatiphala (Myristica fragrance) effectively removes free radicles as assessed by reducing level of various oxidants and improve level of diverse antioxidants. Due to its Primary constituents Elemicin and Myristicin, increases the level of central catecholamine which is mediator for maintain raise in FSH, LH, and Testosterone, which acts on Sertoli cells and Leydig cells and supports the Spermatogenesis.[9] In China, India, and the middle east it was used to induce sexual arousal, review marriages and help with fertility. It can increase the volume of sperm count, so it acts as Sperm Booster. Also, according to Ayurved Vidnyan, Jatiphala Oil has Samuttejan property.

Effect of Kshrungatak Modak

Kshrungatak (water chestnut or Caltrops) belongs to Amradi Phalavarga according to Bhavaprakash[10] and Mulakadi Varga according to Rajnighantu. It has a chemical constituent’s starch, calcium, protein, carbohydrates and phosphorous.

According to Bhavprakash, Kshrungatak is Vrshya (Improve the potency) drug. It plays a role of Prajasthapana as well as Balya and Pittashamak.

It has a Madhur and Kashaya Rasa, Laghu Guna, Madhur Vipaka with Sheeta Virya. The fruit of it is used to improve the sexual potency.

The line of treatment of Ksheenashukra should be based on Vrshya drugs having Shukravriddhikara and Prajasthapan properties. So here we selected Kshrungatak Modak to treat oligospermia. This plays an important role as Prajasthapana.

CONCLUSION

To conclude, this study that Treatment based on Ayurveda principles was found to be effective in male infertility. Patient with Oligospermia in improving sperm count. All the Lakshanas mentioned for Ksheena Shukra such as Sada, Brahma etc, was not found in the patient, so lab investigation like semen analysis plays a vital role in diagnosis and Assessment of prognosis. Are search study concluded that disturbing lifestyle and working stress resulting in changing dietary habits, sleeping habits leads to disturbance in metabolism of body as well as psychological stress and it affects all Dhatus including Shukradyat. In addition, it results in a hormonal imbalance. Finally, it concerns the male sexual activity, which is one of the major causes of male infertility.

SCOPE OF STUDY

It can be a field of research and recommend larger and more rigorous studies such as randomized control trials to get more conclusive results. Vajikaran or Vrishya Chikitsa is one of eight major specialities of the Ashtang Ayurveda. Ayurveda remedies can be helpful for infertile patients to achieve healthy progeny.
After Treatment

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KAMAL NAGAR, HRBADWARI, PANCHAVATI, YASHIKH - 442 003
Tel: 0213-2581848, 2215065

PATIENT'S NAME - Mr. Juan Yadav
DATE - 13/04/2023
Ref. BY - Dr. More
AGE - 29 YRS SEX M

SEMIN ANALYSIS

PHYSICAL EXAMINATION

Quantity - 2 ml
Caliber - Grayish White
Appearance - Opaque White
PH - Alkaline
Liquefication Time - 15 Min
Viscosity - Normal

CHEMICAL EXAMINATION

Fructose - Present

MICROSCOPIC EXAMINATION

Total Sperm Count - > 60 Million/ml
N - 60-95 %
Grade A (Non Mobile) - > 20 %
Grade B (Marginally Motile) - 30 %
Grade C (Motile) - > 50 %
Vasility - > 35 %, After 1 Hr
N - 65%, After 1 Hr
Abnormal Forms - > 20 %
Morphology - Normal
Pac Cells - < 2-4 / Hpf

REMARKS - With in Normal Limit.

Thanks

S.S.A.M. & H.

REFERENCES


4. Sushrut Samhita Sarirsthnam by Bhaskar Govind Ghanekar, Published by Meharchand Lachhmandas Publication, New Delhi, re-print March 2006.p23.


7. Dravyagun Vigyan, Dr. A. P. deshpande & Dr. Subhash Ranade by Proficient publishing house, reprint may, 2011; 838.


10. Bhavaprakash Nighantu by Dr. krushnschandan chunekeer, dr. gangasahay pandey, published by chaukhambha Bharti academy Varanasi reprint annadiphalvarga, 1999; 578-579: 92-93

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