

## CLINICAL EVALUATION OF SHATAVARYADI CHURNA IN THE MANAGEMENT OF KSHEENA SHUKRA W.S.R. TO OLIGOSPERMA

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### ABSTRACT

Male infertility has received less attention, even though it is widely reported. According to a population study, incidence of contribution of male factor alone is 40-50%. Management of infertility in modern medical science has its own limitations and adverse effects. Further it can assure only 30 to 40% results. It is every expensive and a common man cannot afford. In *Ayurvedic* classics, herbal and herbo-mineral fertility agents are explained in details. *Shatavaryadi Churna* given in *Yoga Ratnakar* act as *Veerya Vardhak*. To prove the action of a drug, a clinical trial on human being is very necessary. Now, in this scientific era, any drug cannot be accepted without a scientific clinical trial. So, clinical trial is very important part of a study. Here the present study is entitled as “Clinical Evaluation of *Shatavaryadi Churna* in the Management of *Ksheena Shukra* w.s.r. to Oligospermia”. In this study trial is being done on 30 patients to observe & conclude the effects of *Shatavaryadi Churna*.

**Keywords:** *Ksheen Shukra*, oligospermia, infertility, *ayurveda*, *veerya*

### INTRODUCTION

Owing to the changed life styles, mankind is facing many serious health problems. Often it is taught and preached that “Health is Wealth”, but nobody thinks over it these days. In the blind urge to gather wealth, we have invited tensions and stress to be parts of our lives. Due to increasing pollution and adulteration these days nothing available in pure form. In this era of fast food, we are taking food which is adulterated by preservatives and many other chemicals. These adulterated dietary habits pose a hazard to health. *Ayurveda* the science of life, prevention & longevity, is the oldest & most holistic & comprehensive medical system available. It uses the inherent principles of nature to help maintain health in a person by keeping the individual’s body, mind & spirit in perfect

equilibrium with nature. Each and every science has its own fundamental principles. Among the medical systems *Ayurveda* has also been built up with its own unbreakable fundamental principles. The ancient scriptures of *Ayurveda* were provided with a crystal clear vision about the past, present and the coming future (*Trikala Gyana*) by the proper eradication of *Raja* and *Tamo Gunas* from mind. They are known as *Gunas Doshas*, *Dhatus* and *Malas* are considered to be the very basic constituents of a living body. A disease resulted due to the imbalances of these constituents. The *Panchabhautic* and *Tridoshik* theories are generally applied while dealing with a patient. Simply the removal of increased constituents, supply or

creation of decreased constituents and keeping the normal constituents in their own state can be considered as *Chikista*.

Ayurvedic classics have mentioned that the reproduction is the work of *Shukra Dhatu*<sup>1</sup>. But if there is any type of *Dushti* in *Shukra Dhatu* the process of reproduction impaired. A person having *Shukra duhsti* is unable to fulfill his *Chaturvidha Purusharth*. There are eight type of *Shukra Dushti*. *Ksheena Shukra* has been described under *Shukra dushti*. Here, *Vata Dosha* along with *Pitta* undergoes vitiation and the normal qualities and quantity of the *Shukra Dhatu* is deranged. As a result of vitiation of *Vata* and *Pitta Doshas* the channels which carry *Shukra (Shukravaha Srotas)* under goes *Dushti*, which in capacitates one normal individual from conceiving his life partner, ending in infertility<sup>2</sup>.

In modern medicines the conditions associated with *Ksheena Shukra* in Ayurveda can be well matched with oligospermia. In this condition the sperm count comes below 20 mill/ml<sup>3</sup>. The corresponding decrease in likelihood of conception is associated with decrease of sperm count.

As per Ayurveda, oligospermia can be correlate with '*Shukra Kshaya*'. Even though none of the standard Ayurvedic texts have mentioned about the count of sperm or motility of sperm but clearly mentions the quality of semen in the form of '*Shuddha Shukra Lakshanas*'.

In Ayurveda, healthy semen which is more fertile is described as, the semen which is white, heavy, sticky, and sweet in taste, more in quantity and which may look like the colour of ghee or honey or oil is always fertile. At *Charka*, we provide a very effective, holistic & wide range of treatment modalities

for curing oligospermia. Hundreds of formulations, herbs & recipes, variety of *Panchakarma* & rejuvenation therapies are advocated to achieve the above said qualities of semen.

Ayurveda has advocated a separate branch which deals with the management of defective semen & spermatogenesis along with sexual potency, is called as *Vajikarana Tantra* (aphrodisiacs medicine). *Vajikarana* therapy is recommended in Ayurveda for men who are above 16 & below 70 to maintain optimum sexual activity & healthy semen.

The treatment of oligospermia comprises of administration of *Rasayanas* & *Vajikara Dravyas* or medicines (virilifactory or aphrodisiacs) internally, *Panchakarma* & *Vajikarana* therapies for rejuvenation and lifestyles modifications will not only help in better conception but also in producing healthy offspring.

#### AIMS AND OBJECTIVES-

The present research work has been undertaken with following two main objectives are-

1. To study the etiopathogenesis of *Ksheena Shukra* w.s.r. to Oligospermia.
2. Conceptual and Clinical study on *Ksheena Shukra* w.s.r. to Oligospermia
3. To evaluate the effect of *SHATAVARYADI CHURNA* in the patients of *Ksheena Shukra* w.s.r. to Oligospermia on scientific parameters.

#### MATERIALS AND METHODS-

1. **Literary source:-**A complete review of all available literatures including classical texts, articles and reputed journals<sup>4</sup> was done concerned with the disease *Ksheena Shukra* (Oligospermia) and the trial drug *Shatavaryadi Churna*.

2. **Selection of cases-** The study was conducted in single group clinically and pathologically diagnosed selected from the I.P.D of JIAR.

**CRITERIA FOR SELECTION OF CASES-**

Infertile male patients having *Lakshanas* of *Ksheena Shukra* were selected and sent for semen analysis. If the laboratory report confirms Oligospermia, then those patients were included in present study.

➤ **Inclusion criteria:-**

1. Male patients of age ranging from 20 to 45 years.
2. Diagnosed cases of Oligospermia by semen analysis.
3. Patients with psychological disorders.

➤ **Exclusion criteria**

1. Age below 20 and above 45 years.
2. Total Sperm count > 40 million.
3. Patients with Cardiovascular diseases.
4. Patients with Tuberculosis and mumps.
5. Patients with hypertension.

**INVESTIGATIONS: Semen Analysis-** Semen Analysis i.e. Liquefaction Time, Volume, Viscosity, pH, Sperm Count, Sperm Motility are done.

**CLINICAL ASSESSMENT:** - Clinical assessment and the response to the treatment is studied under following two headings

Sample size	30 Patients
Drug	<i>Shatavaryadi Churna</i>
Dose	3-5 gms BD, before meal
<i>Anupana</i>	<i>Cow Milk</i>
Duration	60 Days
Follow up	1 Month

**REGIME:** - All the patients will be strictly advised to avoid the *Aharas* and *Viharas* which causes vitiation of *Vata Dosha* and

**1. Subjective parameters.**

**2. Objective parameters.**

➤ **Subjective Parameters:**

- Improvement in the signs and symptoms of *Ksheena Shukra- Daurbalya, Mukh sosha, Panduta, Sadanam, Shrama, Klaibya, Shukravisrga/ Alpa shukra visarga*
- Sexual health parameters<sup>5</sup>-

Loss of libido

Erectile dysfunction

Premature ejaculation

Decrease in sperm count and other relevant symptoms.

➤ **Objective parameters:**

- Semen analysis i.e. Total sperm count, Liquefaction Time, Volume, Viscosity, pH, Sperm Count, Sperm Motility rate<sup>6</sup>.

Subjective & objective parameters will be assessed before, during and after treatment. The data obtained will be subjected to statistical analysis.

**POORVA KARMA:** - Before starting the treatment all the patients were given *Haritkyadi Churna* in the dose of 5gm at bed time for *Kosth Shuddhi* for 5 days.

**DRUG DESIGN:-**

*Pitta Dosha*. Patients are also advised to keep *Brahmcharya* during the course of treatment.

**SAMPLE COLLECTION**

- Sample is collected preferably between 9am -11 am.
- Before sample collection patient is asked to remain abstinence for 3-5 days.
- The sample is collected in a dried, sanitized, wide mouthed plastic bottle.
- The patient is asked to deliver the sample to the lab within 20 minutes.

### **OBSERVATIONS AND RESULTS**

#### **DISTRIBUTION OF PATIENTS ACC. TO AGE-**

The above given table notifies that the sample was split into five classes of five years age group interval. The maximum no. of the patients recorded in the age group of 26-30 was 46.66%, in the age group of 31-35 was 26.66% and in the age group 36-40 was 6.66% was 20%, in the age group of 41-45 was 6.66%.

#### **DISTRIBUTION OF THE PATIENT ACCORDING TO MARITAL STATUS**

The table hereby reveals the marital status of the 30 patients. The maximum no. of the patients was married and their percentage is found to 93.33% i.e. total 28 patients were married. Rest of the 2 patients with percentage of 6.66 was unmarried.

#### **DISTRIBUTION OF THE PATIENTS ACCORDING TO THEIR AGNI**

Out of the 30 patients 8(26.66%) and 11(36.66%) patients were having *Samgni* and *Vishama Agni* respectively. Rest 7(23.33%) and 4(13.33%) patients were having *Tikshana* and *Madhyama Agni* respectively.

#### **DISTRIBUTION OF THE PATIENTS ACCORDING TO THEIR BOWEL**

The table depicts that out of the total no. of patients 60% of the patients were having regular bowel habit and rest 40% of the patients were having irregular bowel type.

#### **DISTRIBUTION OF PATIENTS ACC. TO PSYCHOLOGICAL CONDITION**

The graph here by shows the psychological condition of the patients, out 30 patients 5(16.66%) patients were stressed, 17(56.66%) were normal, 6(20%) were in the condition of anxiety and rest 2(6.66%) were depressed.

#### **DISTRIBUTION OF THE PATIENTS ACCORDING TO PRAKRITI**

The tables shows that out of 30 patients 46.66% of the patients were having *Vata-Pitta*, 30% of the patients were having *Vata-Kapha* and rest 23.33% of the patients were having *Pitta-Kapha Prakriti*.

#### **DISTRIBUTION OF THE PATIENTS ACC. TO THEIR MASTURBATION INDULGENCE**

The table shows the masturbation indulgence of all the patients, out of all the patients 3.33%(1) were regular since adolescence, 30%(9) indulged only in adolescence, 26.66%(8) were occasionally and rest 40% were having no history.

#### **DISTRIBUTION OF THE PATIENTS ACCORDING TO THEIR UNDERGARMENTS**

The data in the table shows that 66.66% of the patients worn synthetic and 33.33% of the patients worn cotton under garments. 26.66%(8) of the patients worn loose undergarments and rest 73.33%(22) of the patients worn tight undergarments.

#### **DISTRIBUTION OF THE PATIENTS ACCORDING TO THEIR KSHEENA SHUKRA LAKSHANA**

The *Ksheena Shukra Lakshana* like *Dourbalya* were present in 17 patients(56.66%), *Mukha Shosha* were present in 11 patients(36.66%), *Sadan* present in 13 pa-

tients(43.33%), *Shrama* present in 16 patients(53.33%), *Pandu* present in 9 patients(30%), *Klaibya* present in 7 patients(23.33%) and *Alpa Shukra Visarga* present in 10 patients(33.33%).

## CLINICAL RESULTS

Table no.1 Effect Of Shatavaryadi Churna On Ksheena Shukra Lakshana

PARAMETERS	Mean		MEAN %age DIFF
	BT	AT	
<i>Daurbalya</i>	17	03	82.35
<i>Mukha shosha</i>	11	02	81.82
<i>Panduta</i>	09	03	66.66
<i>Sadanam</i>	13	10	76.92
<i>Shrama</i>	16	10	75
<i>Klaibyam</i>	07	05	28.57
<i>Alpa shukra visarg</i>	10	08	80

Table no. 2 EFFECT OF SHATAVARYADI CHURNA ON TOTAL SPERM COUNT

Mean		d	%	S.D.	S.E	t	P	Df
BT	AT							
19.20	56.96	37.77	19.67	21.88	3.99	9.45	<0.001	29

Table no. 3 EFFECT OF SHATAVARYADI CHURNA ON VOLUME

Mean		d	%	S.D.	S.E	T	P	Df
BT	AT							
1.90	2.883	0.983	51.73	0.499	0.09	10.77	<0.001	29

Table no. 4 EFFECT OF SHATAVARYADI CHURNA ON MOTILITY

Mean		d	%	S.D.	S.E	t	P	Df
BT	AT							
28.67	53.40	24.73	86.25	14.63	2.67	9.25	<0.001	29

Table no. 5 EFFECT OF SHATAVARYADI CHURNA ON LIQUEFACTION

Mean		d	%	S.D.	S.E	T	p	Df
BT	AT							
17.87	25.17	7.3	40.85	3.19	0.58	12.50	<0.001	29

## DISCUSSION

Here the topic “Clinical Evaluation of *Shatavaryadi Churna* in the management of *Ksheena Shukra* w.s.r to. Oligospermia” has been taken to assess the effects of *Shamana* drug. *Ksheena Shukra* is a condition where in *Shukra Dhatu* gets vitiated either quantitatively or qualitatively due to the vitiated *Vata* and *Pitta Dosha* that are provoked due to said *Nidana*. *Shukra* is the *Param Sara* of *Ahara Rasa*. The function attributed to *Shukra*

*Dhatu* as well as the semen is *Garbhotpadana*. Because of the similarities in the qualities as well as the functions of both *Shukra* and the semen, the *Shukra* mentioned in Ayurveda can be compared easily to that of semen of modern medicine. Although, in Ayurveda many effective remedies for *Ksheena Shukra* are mentioned without any known side effects but a major drawback attributed to these remedies are that they involve laborious treatment procedures such as

*Shodhana* procedures, where the patient has to be hospitalized and moreover, they have to follow strict diet and regimen during these procedures and these procedures are more time consuming also. Moreover, there are some patients who are physically unfit for these *Shodhana* procedures and *Shamana* treatment has been advised for such kind of patients in our *Ayurvedic* classics.

Oligospermia can be somewhat compare with *Ksheena Shukra* according to modern science. But, if we consider the characteristics feature of *Ksheena Shukra*, we cannot co-relate *Ksheena Shukra* with Oligospermia directly. The criteria for diagnosis is based strictly on quantity But according to *Ayurveda* the excellent tissue element status is hampered. Fertilizing capacity of *Shukra Dhatu* is depends upon its excellent status rather than the no. of sperm count.

Also, in the present era, due to the change in life style, hectic activities, and busy life schedules and lack of time also, many a time's patients though fit are not ready to undergo *Shodhana* procedures. Keeping this in mind, an attempt was made to treat the *Ksheena Shukra* (Oligospermia) and study was made to assess the efficacy of *Shatavaryadi Churna* on seminal parameters without any classical *Shodhana* procedures. As the drug under trial are having *Balya*, *Vrishaya*, *Shukrala*, *Vajikarana* and *Rasayana* properties and are used with *ksheera* as *Sahapana* which is mentioned as *Sadhya Shukra karaka*. Hence the trial of the drug "*Shatavaryadi Churna*" is done on the 30 patients from the OPD of J.I.A.R. and assessment of the patients on the selected criteria is continuously analyzed.

## CONCLUSION

The final conclusion can be drawn on the basis of all the clinical observations and the results obtained during the study:-

1. Dominance of *Vata* and *Pitta Dosha* in the disease *Ksheena Shukra* can be interpreted by clinical data which shows that majority of patients (46.66%) were having *Vata-Pitta Prakarti*, rest of the patients were *Pitta* and *Vatta Pradhan prakarti*. Majority of the patients were from *Madhym Vaya* which is again period of *Pitta Pradhanta*.
2. *Shatavaryadi Churna* found highly effective for the treatment of *Ksheena Shukra* and its associated symptoms.
3. *Shatavaryadi Churna* contains drugs which have *Shukral*, *Vajikaran*, *Vrishya*, *Brimhana*, *Balya*, *Rasyana*, and *Kamoudipak* properties. The mode of action drugs which is based on *Samanya Vishesh Nyaya*, according to which drugs with similar qualities leads to enhance their similar qualities in the subject.
4. Drug also showed promising results in the ejaculatory control and the viscosity of semen.
5. No side effects were observed by the patients during the trial period of the drug.
6. Being presence of potent drugs in the selected formulation, it can be tried in the other diseases associated with *Shukravaha Srotodusti*. Further research can provide more fruitful results.
7. The modality of treatment was economical, non-invasive, and very easy and can be done at OPD level.
8. All parameters except *Klaibyam* show improvement with *Shatavaryadi Churna*.
9. Proper sex education, counseling and dietary corrections were found to be most effective in treatment of *Ksheena Shukra*.

10. Since the present *Yogas* contain potent drugs, they can be tried in other diseases associated with *Shukravaha Srotodushti*.
11. Due to unavoidable circumstances, we restricted duration of treatment only for 60 days. We can expect better result if medication is extended up to more.

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