

A CLINICAL STUDY ON MASHAASHWAGANDHADI CHURANA IN THE MANAGEMENT OF KSHEENA SHUKRAVIS-A-VIS TO OLIGOSPERMIA

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ABSTRACT

Ksheena shukra is a condition in which both quality and quantity of the *Shukra* may alter and may lead to *Shukradhusti* when both *Vata* and *Pitta Dosha* are vitiated. *Shukra* mentioned in the Ayurveda can be compared with semen of modern science. An attempt was made to treat the *Ksheena Shukra* (Oligospermia) at OPD level and study was made to assess the efficacy of *Mashaashwagandhadi Churana* on *Ksheena Shukra Lakshana* and seminal parameters without any classical *Shodhana* procedures. As the drug has *Vrishaya* properties and are used with milk as *Sahapana*, which is mentioned as *Sadhya Shukra Karaka*. Hence the trial of the drug *Mashaashwagandhadi Churana* was done on 30 patients from the OPD of Shree J.G.C.S.H. Ayurvedic and Medical Hospital. All the selected patients were assessed for subjective and objective parameters before medication, after medication and after follow up. Single group study has been performed and significant results were seen.

Keywords: *Ksheena Shukra*, oligospermia, *Mashashawagandhadi Churana*.

INTRODUCTION

Infertility is defined as the inability to achieve pregnancy after one year of unprotected coitus¹. Infertility is a problem of global proportion affecting an average 8-12 percent of couple worldwide². Annual incidence of male infertility is at least 2 million cases (NWHIC). Its prevalence is extremely high in metropolitan city as well as in small town of India³. Except some physical defects low sperm count (oligospermia) and poor sperm quality are responsible for male infertility in more than 90% of cases⁴. Recently, WHO has given new guidelines; a person possessing sperm count less than 15 million/ml is

suffering from oligospermia. Oligospermia is the seminal disorder in which sperm count is below 15 millions/ml⁵.

Ayurveda explains that *Shukra Dosha* is one of the disease conditions, which finally results in infertility. *Ksheena Shukra* is one of the major varieties of *Shukra Dosha*, which have diminished level of *Shukra* and ultimately leads to infertility.

The main aim of medical therapy in infertility is to improve fertility status of infertile individual, in order to increase the chance of pregnancy. In males with oligospermia, it is broadly to improve seminal

parameters and sperm concentration. In particular *Vajikarana* is one of the branches of Ayurveda that deal with the preservation and amplification of sexual potency of healthy man and conception of healthy progeny as well as management of defective semen, disturb sexual potency and spermatogenesis along with the treatment of seminal related disorder in male⁶. *Vajikarana* promotes the sexual capacity and performance, as well as improves the physical, psychological and social health of individual⁷.

The term oligospermia was correlated in research work with *ksheenshukra*, *alpashukra*, *shukrakshaya*, etc. Ayurveda describes many potent drugs and efficient therapeutic procedures mentioned in *Vajikarana* to treat the *ksheenashukra* and infertility. *Ksheen shukra* denotes decreased state either quantitative or qualitative degrading of *shukra dhatu* or both. There are number of formulations mentioned for the *Vajikarana*. Although a number of research studies have been carried out, still an effective formulation is needed for the management of *Ksheenashukra*. This inspiration me to take this formulation "*Mashaashwagandhadi churana*"⁸ mentioned in *Sahasrayogam*, which is cost effective and easily available, and the clinical study is based on the hypothesis that its ingredients, *masha*, *ashawgandha*, *yastimadhu*, *shvadanshtra*, *mudagbeeja*, *pakvarambha phalam* having *Vrishya* properties, so it is useful for combating the *Ksheenashukra*.

Aim and Objectives:

To study the efficacy of, "*Mashaashwagandhadi Churana*" in *Ksheena Shukra* w.s.r. to oligospermia.

Material and Methods:

Intervention:

Table 1:

Sample size	30 patients
Medicine	<i>Mashaashwagandhadi Churana</i>
Dose	3gm twice daily before food
<i>Sahapana</i>	Milk Qs
Duration	60 days
Follow up	30 days

Selection of patients: the study was conducted in a single group of *Ksheena Shukra* patients from the OPD of Shree J.G.C.S.H. Ayurvedic and Medical Hospital.

Group: Single group.

Inclusive Criteria:

1. Patients presenting with *Pratyatmaka Lakshana* of *Ksheenashukra* i.e. *Klaibyam*, *Sukraavisarga*, *Daurbalya*, *Mukhshosha*, *Pandutvam*, *Sadanam*, *Srama* with semen samples suggestive of Oligospermia.
2. Sperm count < 15 millions/millilitre.
3. Male patients of age ranging from 20 to 45 years.

Exclusive Criteria:

1. Age below 20 and above 45 years.
2. Sperm count > 15 million / ml.
3. Patients with aspermia.
4. Genetic defects like 'Klinefelter's syndrome'.
5. Patients with diseases like Varicocele, Accessory sex gland infection, Sexually transmitted diseases, and systemic diseases like DM, HTN (BP > 160/100) etc.
6. Patient with testicular atrophy.

Clinical Assessment:

Subjective parameters:

- Relief in the symptoms of *Ksheena shukra* i.e. *Klaibyam*, *Sukraavisarga*, *Daurbalya*, *Mukhshosha*, *Pandutvam*, *Sadanam*, *Srama*.
- Sexual health parameters- Desire, Erection, Ejaculation, performance and Orgasm has been graded and assessed.

Objective parameters:

- Semen analysis i.e. Total sperm count and Motility.

Regime: All the patients were strictly advice to avoid the *Ahara* and *Vihara* which causes the vitiation of *Vatadosha* and *Pittadosha*.

Observation and results:

The study was conducted in single group selected patients of *Ksheena Shukra* from Shree J.G.C.S.H.

Ayurvedic and Medical Hospital. The total 30 patients were taken and thoroughly analyzed. To assess the results of the study, both objective and subjective finding were recorded before treatment, after treatment and after follow up period.

Table 2: Effect of *Mashashwagandhadi Churana* on subjective parameters before treatment (BT) and after treatment (AT) by showing their mean score value:

Parameters	Mean Score			%	SD		SE		“t” value	P
	BT	AT	BT-AT		BT	AT	BT	AT		
<i>Daurbalya</i>	1.43	0.76	0.67	46.85	0.63	0.57	0.11	0.10	7.6158	0.0001
<i>Panduta</i>	0.77	0.4	0.37	48.05	0.73	0.62	0.13	0.11	3.6117	0.0011
<i>Agnisada</i>	1.2	0.87	0.33	27.5	1.06	0.82	0.19	0.15	2.5673	0.0157
<i>Shrma</i>	1.9	1.3	0.60	31.58	1.06	0.75	0.19	0.14	4.2672	0.0002
<i>Mukha Shosha</i>	1.03	0.76	0.27	26.21	0.76	0.73	0.14	0.13	3.2474	0.0029
<i>Timira Darshana</i>	0.5	0.33	0.17	34	0.57	0.55	0.1	0.1	2.4083	0.0226
<i>Medhya Dhamyana</i>	0.73	0.47	0.26	35.62	0.83	0.63	0.15	0.11	3.2474	0.0029
<i>Medhra Vishmana Vedana</i>	1.13	0.83	0.30	26.55	1.04	0.8	0.19	0.14	2.3400	0.0264
<i>Chirat Prasheka</i>	0.73	0.47	0.26	35.62	0.83	0.63	0.15	0.11	1.8608	0.0729
<i>Rati Anbhimukhta</i>	0.97	0.53	0.44	45.36	0.96	0.73	0.18	0.13	3.7911	0.007
<i>Mathuna Ashkti</i>	1.37	0.63	0.74	54.01	1.22	0.93	0.22	0.17	5.8086	0.0001

Table 3: Effect of *Mashaashwagandhadi Churana* on *Shukra Kshaya Lakshana* before treatment (BT) and after Follow up (AF):

Parameters	Mean Score			%	SD		SE		“t” value	P
	BT	AF	BT-AF		BT	AF	BT	AF		
<i>Daurbalya</i>	1.43	0.77	0.66	46.15	0.63	0.43	0.11	0.08	5.1346	<0.0001
<i>Panduta</i>	0.77	0.4	0.27	35.06	0.73	0.56	0.13	0.1	2.6256	0.0137
<i>Agnisada</i>	1.2	0.57	0.63	52.50	1.06	0.63	0.19	0.11	3.8980	0.0005
<i>Sharma</i>	1.9	1.47	0.43	22.63	1.06	1.01	0.19	0.18	3.4960	0.0015
<i>Mukha Shosha</i>	1.03	0.67	0.36	34.95	0.76	0.66	0.14	0.12	4.0975	0.0003
<i>Timira Darshana</i>	0.5	0.23	0.27	54	0.57	0.43	0.1	0.08	3.2474	0.0029
<i>Medhya Dhamyana</i>	0.73	0.33	0.4	54.79	0.83	0.61	0.15	0.11	3.8898	0.0005
<i>Medhra Vishmana Vedana</i>	1.13	0.80	0.33	29.2	1.04	0.85	0.19	0.15	3.3397	0.0023
<i>Chirat Prasheka</i>	0.73	0.40	0.33	45.2	0.83	0.62	0.15	0.11	2.4083	0.0226
<i>Rati Anbhimukhta</i>	0.97	0.67	0.3	30.92	0.96	0.71	0.18	0.13	3.0714	0.0046
<i>Mathuna Ashkti</i>	1.37	0.87	0.5	36.49	1.22	0.92	0.22	0.17	4.2638	0.0002

Table 4: Effect of *Mashaashwagandhadi Churana* on objective parameters before treatment and after treatment by showing their mean score value:

Parameters	Mean Score			%	SD		SE		“t” value	P
	BT	AT	Diff.		BT	AT	BT	AT		
Semen Volume	2.42	2.32	0.1	4.13 ↓	0.94	0.55	0.172	0.1	0.7057	0.486
Sperm Count	8.53	20.83	12.3	144.19 ↑	3.59	9.88	0.66	1.8	7.3959	<0.0001
Total Motility of Sperms (%)	62.4	70.33	7.93	26.55 ↑	13.42	10.58	2.45	1.93	3.7635	0.0008
Non Motile Sperm (%)	37.27	31.33	5.94	15.93 ↓	12.61	13.25	2.3	2.42	2.2430	0.0327
Morphological Abnormalities	7.17	8.2	1.07	14.92 ↑	4.22	3.2	0.77	0.59	1.4855	0.1482

Table 5: Effect of *Mashaashwagandhadi Churana* on objective parameters before treatment and after follow up by showing their mean score value:

Parameters	Mean Score			%	SD		SE		“t” value	P
	BT	AF	Diff.		BT	AF	BT	AF		
Semen Volume	2.42	2.61	0.19	7.85 ↑	0.94	0.652	0.172	0.119	1.7102	0.0798
Semen Count	8.53	20.97	12.44	145.83 ↑	3.59	8.46	0.66	1.54	8.6263	<0.0001
Total Motility of Sperms (%)	62.4	69.67	11.65	26.55 ↑	13.42	9.99	2.45	1.82	3.4589	0.0017
Non Motile Sperm (%)	37.27	32.33	4.94	13.25 ↓	12.61	12.16	2.3	2.22	2.391	0.0235
Morphological Abnormalities	7.17	8.23	1.06	14.78 ↑	4.22	3.65	0.77	0.67	1.9012	0.0673

Probable mode of action of *Mashaashwagandhadi Churana* on *Ksheena Shukra*:

The chief ingredients of *Mashaashwagandhadi Churana* are *masha*, *ashawgandha*, *shvadanshtra*, *mudagbeeja*, *yashti* and *pakvarambha phalam*.

In this *Ashwagandha* having *Katu* and *Kshaya Rasa* and *Katu Vipaka* which shows *Atishukral*, *Balya* and *Rasayani* effect, and

Yasti having *Madhura Rasa* and *Madhura Vipaka* which shows *Balya* and *Shukrala* properties,

Shvadranshta having *Madhura* and *Tikta Rasa* with *Tikta Vipaka* showing *Vrishya* and *Balya* properties, *Masha* having *Madhura Rasa* and *Madhura Vipaka* which shows the properties of *Santarpanakara*, *Balapravartaka*, and *Shukrapravahkara*,

Mudag Beeja having *Madhura* and *Kshaya Rasa* with *Sita Vipaka* showing *Varanahara*, *Balaprada* and *Pitta Kaphahara* properties,

Pakva Rambha Phalam which having *Madhura Rasa*, *Madhura Vipaka* and posses *Vata Pitta Shamaka* and *Balya* properties and

Milk which has used in the preparation of this formulation, having *Madhura Rasa* and *Madhura Vipaka* and *Rasayana*, *Balya* and *Medhya* properties. Probably synergic effect of all these drugs may lead to stimulant effect, mainly on endocrine glands. This shows affect on testis as well as accessory sex glands result in improved the qualities and quantity of Semen.

Due to the *Vrishya* properties of the drug it will also show immunomodulatory effects and help to increase the strength of the body and also have effect on stress as well as on anxiety.

CONCLUSION

- On the basis of observation recorded at the time of study, we can say that *Ksheena Shukra* is more common:
 - In age group from 31 to 40 years.
 - Business and Labor class
 - Patients with mental as well as physical exertion
 - Patients adopting sedentary life style

- Patients working more than 8 hours in a day
- Patients addicted to smoking, Pana Masala and tobacco chewing
- The study shows statistically significant results in all parameter of *Ksheena Shukra Lakshana*.
- Overall conclusion from this study we can say that *Mashaashwagandhadi Churana* have very good effect on sperm count, increase the percentage of motile sperm and reduce the percentage of non motile sperm.

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Conflict Of Interest: None Declared

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