

CLINICAL STUDY OF 'MASHASHWAGANDHADI CHURNA' IN 'KSHINA SHUKRA' (OLIGOSPERMIA)

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ABSTRACT

Ritu, Kshetra, Ambu and *Beeja* are the essential causes for the formation of *Garbha*, among these Male *Beeja* (Sperm) plays an important role in conception, any vitiation in this may lead to male infertility. Infertility is a problem of global proportions, affecting on an average 8-12% male population worldwide. Various biological and environmental factors affect the sperm count in males. Low sperm count (Oligozoospermia) is one of the main causes of male infertility which is correlated with *Kshina Shukra*. *Kshina Shukra* is a condition in which there is qualitative and quantitative decrease of *Shukra*.

Ayurveda has described many potent drugs and efficient therapeutic procedures to face the problem of infertility. Considering this the present study was carried out. Selected patients were treated with oral administration of *Mashashwagandhadi Churna*, in the dose of 10 grams with lukewarm water before food in the morning for 60 days and follow up done after every 15 days of the treatment. Result observed by the completion of the treatment was subjected to paired "t" test to know the statistical significance. Sexual parameters and seminal parameters showed improvement with the statistical significance. **Conclusion:-** *Mashashwagandhadi churna* is effective to increase sperm count, semen volume and motility of sperm. It has also beneficial effect on sexual parameters.

KEYWORDS: *Kshina Shukra*, Oligozoospermia, Infertility, *Mashashwagandhadi churna*.

INTRODUCTION

Ayurveda is a holistic healing science which comprises of two words, 'Ayu' and 'Veda'. Ayu means life and Veda means knowledge or science. So the literal meaning of the word *Ayurveda* is the science of life. *Ayurveda* is a science dealing not only with treatment of some disease but is a complete way of life. Aim of *Ayurveda* is making a happy, healthy and peaceful society. The two most important aims of *Ayurveda* are:-To maintain the health of healthy people and to cure the diseases of sick people. According to *Ayurveda* *Dosha*, *Dhatu* and *Mala* are the base of our body. The living body can function normally only when it's *Dosha*, *Dhatu* and *Mala* are in a state of equilibrium. One who's function and situation of *Dosha*, *Agni*, *Dhatu* & *Mala* are in the state of equilibrium & who has cheerful mind, intellect & sense organs is termed as *Swastha*. The term *Dhatu* represent element which are responsible for formation of the basic structure of the body and because of their supporting properties they are called *Dhatu*. They provide both support and nourishment to various part of the body. *Shukra* is considered as best among all seven Dhatus. As per *Ayurveda* classics, *Garbhotpadan* is the main vital function of *Shukra Dhatu*. When insufficiency of *Shukra* occurs then it is called as *Kshina Shukrata*, which may be correlated with Oligozoospermia. This insufficiency finally leads to the infertility in males. *Kshina Shukra* is due to *Vata* & *Pitta dosha*. *Vajikarana* is such specialized branch of *Ayurveda* which involves a detailed description on various abnormalities of *Shukra Dhatu* and their modes of treatment. It also includes details of *shukra janana*, *shukra praseka* and various aspects of *Shukra* in a *Swastha*. Many yogas have been explained which vouch on curing *Shukra dosha* and improving the quality & quantity of the *Shukra*. In the present era, due to the change in life style, hectic activities, busy life schedules and lack of time, many a time's patients though fit are not ready to undergo *Shodhana* procedures. Keeping this in mind, an attempt was made to understand the concept of *Kshina Shukra* (Oligozoospermia) and its samprapti vighatana by *Mashashwagandhadi Churna* on seminal parameters and sexual parameters. As the drug is having *balya*, *brumhana*, *shukrala*, *vajikarana* and *rasayana* properties and are used with worm water as *Anupana*.

AIMS AND OBJECTIVES

- Applied physiological study of *Shukra Dhatu* particularly *Kshina Shukra*.
- Clinical study of '*Mashashwagandhadi Churna*' in the treatment of *Kshina Shukra* w.s.r. to oligozoospermia.

SELECTION OF PATIENTS: Patients indicated and fit for trial were selected from OPD & IPD of *Sharir Kriya* Department, National Institute of Ayurveda, Jaipur.

INCLUSION CRITERIA

1. Diagnosed & confirmed cases of *Kshina Shukra* (oligozoospermia) on the basis of symptoms and laboratory investigations.
2. Male patients between the age group of 21-60 years.

EXCLUSION CRITERIA

1. Patients suffering from chronic infections & any other serious illnesses.
2. Patients suffering from any sexually transmitted disease.
3. All congenital and surgical cases of impotency.

DIAGNOSTIC CRITERIA

1. Semenogram
2. Patient with sperm count < 40 million/ml.
3. Patient with clinical presentation of *Kshina Shukra* was selected.

DISEASE REVIEW

The term *Kshina Shukra* comprises of two words *Kshina* and *Shukra*. The term *Kshina* 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.^[1]

Nirukti and Paribhasha of ‘*Kshina Shukra*’

Kshina Shukra is a condition in which there is swamanaan alpeebhuta shukra.^[2] The condition in which the quantity of *Shukra* is alpa is termed as *Kshina Shukra*.

Paryaya of *Shukra*

Paryaya of *Shukra* mentioned in Amarakosha.^[3]

- ✓ Paurusam: the character which is inherent in Purusa
- ✓ Pumsatva: the fertility factor essential for conception
- ✓ Ananda Samudbhava: this indicates the matter which is ejaculated at the time of orgasm or extreme pleasure
- ✓ Majja Samudbhava: the substance which is formed out of Majja Dhatu
- ✓ Veerya: the factor responsible for any action

- ✓ Retas: the matter which is ejaculated at the time of sexual intercourse
- ✓ Tejah: that which shines
- ✓ Beejam: that which has the capacity to give rise an offspring

Paryaya of Ksheena Shukra

Acharya Sushruta and Vagbhata have used the term “*Kshina Retas*” as a synonym of *Kshina Shukra*.^[4,5]

Definition of the term oligospermia

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

Synonyms

1. Oligospermia
2. Oligozoospermia

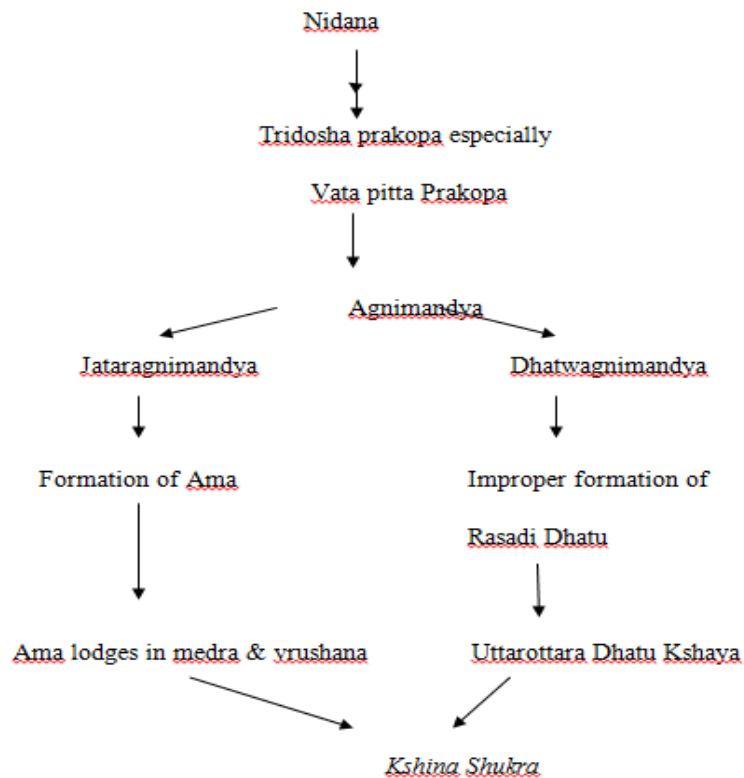
Nidana of *Kshina Shukra*^[6]

Sushruta and Vagbhata explain that *Vata* and *Pitta* are the two doshas involved in the causation of *Kshina Shukra*.^[7] *Vata* and *Pitta* Prakopaka Hetus, Samanya Dhatu kshaya karana and *Shukra* Kshaya Karana are explained in various classics which are responsible for *Kshina Shukra*.

1. Ativyavaya and Ativyaayama – excessive sexual intercourse and exercise
2. Asatmya Ahara sevana – intake of incompatible food
3. Akala Maithuna – untimely sexual intercourse
4. Ayoni Maithuna – coitus through marga other than yoni
5. Amaithuna – No sexual intercourse for long time
6. Intake of food which is having more Tikta, Kashaya, Lavana and Amla Rasa, Ruksha Guna and Ushna Veerya
7. Narinaam Arasajnanam - Sexual intercourse with a woman who has no interest for sex
8. Excessive Chinta (thinking) and Shoka (excessive grief)
9. Atiyoga of Sastra, Kshara and Agni Karma
10. Bhaya (Fear), Krodha (Anger) and Abhichara Karma (black magic)
11. Vyadhi Karshana (debility due to diseases)
12. Vegadharana (Suppression of urges)

13. Kshata – injury (Injury to Vitapa Marma causes Alpa Shukrata).

SAMPRAPTI OF *KSHINA SHUKRA*



SAMPRAPTI GHATAKA OF *KSHINA SHUKRA*

Dosha:- Tridosha especially Vata, Pitta

Dhatu:- Rasa, Shukra

Srotas:- Rasavaha, Shukravaha

Agni:- Jataragni, Dhatwagni

Ama:- Jataragnimandyajanya, Dhatwagnimandyajanya

Srotodushti:- Sanga

Udbhavasthana:- Amashaya Sanchara

Sthana:- Rasayani

Adhishtana:- Medra, Vrishana

Vyaktha Sthana:- Shukra, Vrishana, Medra

Rogamarga:- Madhyama

Vyadhiswabhava:- Chirakari

CAUSES OF OLIGOSPERMIA

➤ Drugs, alcohol, smoking

- Strenuous riding (bicycle riding, horseback riding)
- Medications, including androgens
- Obstruction in Vas deferens
- Absence of Vas deferens, often related to genetic markers of cystic fibrosis
- Infections – Eg. Prostatitis
- Ejaculatory duct obstruction
- Thermal causes
- Environmental factors

DRUG REVIEW

Mashashwagandhadi Churna is a classical ayurvedic formulation which described in *Sahastrayogam*.^[9]

The constituent of the “*Mashashwagandhadi Churna*” are as below:-

Sr.No	Name	Ras	Guna	Vipaka	Virya	Doshagnata
1	Mash	Madhur	Guru, Snigdha	Madhur	Ushna	Vata Samak
2	Ashwagandha	Tikta, Katu, Madhur	Laghu, Snigdha	Madhur	Ushna	Kapha Vata Samak
3	Yashtimadhu	Madhur	Guru, Snigdha	Madhur	Sheeta	Vata Pitta Samak
4	Gokshur	Madhur	Guru, Snigdha	Madhur	Sheeta	Vata Pitta Samaka
5	Mudga	Kashaya, Madhur	Laghu, Ruksha, Vishada	Katu	Sheeta	Kapha Pitta Samaka
6	Kadli	Kashaya, Madhur	Guru, Sheeta	Madhur	Sheeta	Vata Pitta Samaka
7	Milk	Madhur	Guru, Snigdha	Madhur	Sheeta	Pitta Samak

DOSE AND DURATION:- *Mashashwagandhadi Churna* 10 grams with lukewarm water for 60 days.

PROBABLE MODE OF ACTION

Kshina Shukra is a *Vata-Pitta* pradhana vyadhi and the line of treatment mentioned in the classics is *Shukra Upachaya*. *Shukra Upachaya* can be achieved by two methods, either tackling the involved *Dosha* i.e., *Vata* and *Pitta* or directly by upachaya of *Shukra* under the lines of *Samanya-Vishesha siddhanta* between the *dravya* and *Shukra*. The *dravya* selected for the study had both guna of combating the *dosha* involved and also *Shukra* upachaya guna. The drug *Mashashwagandhadi Churna* has properties like *brumhana*, *balya*, *vrishya*, *Vatapitta shamana*, *Shukra janaka*, *pravartaka* and is to be administered in individuals with *prajakama*, it might have helped in producing good results in *Kshina Shukra*.

RESULTS

EFFECT OF THERAPY ON SEMINAL PARAMETERS

Symptom	N	Mean		Dif.	% of change	SD±	SE±	t	P	Result
		BT	AT							
Semen volume	15	1.76	2.06	0.3	16.98%	0.316	0.081	3.674	0.0025	VS
pH	15	7.90	7.84	0.06	0.76%	0.320	0.082	0.806	0.4332	NS
Liq. time	15	32.66	33.33	0.66	2.04%	3.852	1.029	0.69	0.50	NS
Sperm count	15	20.93	23.13	2.2	10.50	2.39	0.61	3.55	0.003	VS
RLP	15	34	37	3	8.91	4.55	1.17	2.55	0.023	S
SLP	15	34.33	35.66	1.33	4.65%	6.67	1.72	0.77	0.45	NS
NP	15	12.66	12.33	0.33	2.63	3.99	1.03	0.32	0.751	NS
IM	15	19	18.33	0.66	3.47	2.58	0.66	1.00	0.334	NS

EFFECT OF THERAPY ON SEXUAL PARAMETERS

Symptom	N	Mean		Dif.	% of change	SD±	SE±	P	Result
		BT	AT						
Sexual Desire	15	1.466	0.866	0.6	40.91	0.632	0.163	0.007	VS
Erection	15	1.66	1.2	0.46	28.00	0.516	0.133	0.015	S
Ejaculation	15	1.93	1.4	0.53	27.47	0.516	0.133	0.0078	VS
Daurbalya	15	1.93	0.87	1.06	55.17	0.798	0.206	0.001	ES
Performance Anxiety	15	1.66	1.13	0.53	32	0.516	0.133	0.007	VS
Post act exhaustion	15	1.86	1.26	0.6	32.14	0.507	0.130	0.003	VS
Self satisfaction	15	1.53	1.0	0.53	34.78	0.516	0.133	0.0078	VS
Partner satisfaction	15	1.66	1.26	0.4	24	0.507	0.130	0.0313	S
Mukha shosha	15	1.8	1.33	0.46	25.55	0.516	0.133	0.0156	S
Panduta	15	1.2	0.86	0.33	27.78	0.488	0.126	0.062	NS
Agnisada	15	1.26	0.93	0.33	26.31	0.488	0.126	0.062	NS
Timira darshana	15	1.2	0.733	0.466	38.33	0.516	0.133	0.0156	S
Vrishana medhra Vedana	15	0.93	0.6	0.33	35.71	0.488	0.126	0.0625	NS
Vrishan medhra dhumayana	15	0.86	0.4	0.46	53.84	0.516	0.133	0.0156	S

DISCUSSION

Acharyas has mentioned eight types of *Shukra dushti* in Samhitas of which *Kshina Shukra* is important one that causes to most of male infertility. Dietetic factors are described as *Shukravaha Srotodushtikara Nidanas*, particularly *Anasana* (Fasting), *Alpa- Pramitaasana* (Inadequate diet) and *Visamaasana* (Irregular diet), which can impede the Agni and may produce *Kshina Shukra*, which ultimately leads to impaired fertility. All the ingredients of *Mashashwagandhadi Churna* have *Madhura Rasa* and most of ingredients have *Madhura Vipaka*, *Sheeta Virya*, *Guru Snigdha Guna*, *Vata-Pittashamaka*. *Vrishya*, *Balya*. *Brimahana*, *Rasayana* properties so the probable mode of action of the trial drug can be better understand by basic theory of *Ayurveda* – the theory of *Samanya-Vishesha*. According to this theory drug

will acts on *Shukra*. Special properties like *Vrishya*, *Shukra Janana* of drugs may directly affect the process of spermatogenesis and result to improve the quality and quantity of *Shukra*.

CONCLUSION

According to *Ayurveda* classics *Kshina Shukra* is enumerated as one among the eight varieties of *Shukra Dosh*. The major process taking place in the pathogenesis of *Kshina Shukra* is the qualitative and quantitative depletion of *Shukra Dhatu*. In modern science this condition can be very well co-related with oligozoospermia, where the decreased concentration of sperms per ejaculate is present. This condition ultimately leads to male infertility. *Mashashwagandhadi churna* with lukewarm water is effective to increase sperm count and semen volume and motility of sperm. It has also beneficial effect on subjective parameters like, Daurbalya, Sexual desire, Erection, Ejaculation, Performance Anxiety, Post act exhaustion and Self satisfaction, Partners satisfaction, *Mukhashosha*, Timira darsana, and Medhra –Vrishana Dhumayana.

REFERENCES

1. Raja Radhakantadeva, Shabdhakalpadhruma, completed by Varadaprasad and Haricharan, Motilal Banarasi Das, New Delhi, 1961; 8: 503-151.
2. Acharya Dalhana Commentary, Sushruta Samhita of Acharya Sushruta with Nibandhasangraha Commentary of Dalhanacharya and Nyayachandrika Panjika of Gayadasa on Nidana Sthana, edited by Yadavji Trikamji Acharya, Chowkhamba Krishnadas Academy, Varanasi, 2004, Sutra Sthana, Chapter-1, Verse-8, pp-824, pg 3.
3. Acharya Amarasimha, Amarakosha, with Vyakhyasudha Commentary of Bhanuji Deekshita, Chowkhamba Krishnadas Academy, Varanasi, 2013, Canto 2, Manushyavarga 6, Verse-62, pp-463, pg-222.
4. Acharya Sushruta, Sushruta Samhita of Acharya Sushruta with Nibandhasangraha Commentary of Dalhanacharya and Nyayachandrika Panjika of Gayadasa on Nidana Sthana, edited by Yadavji Trikamji Acharya, Chowkhamba Krishnadas Academy, Varanasi, 2004, Sutra Sthana, Chapter-1, Verse-8, pp-824, pg 3. 5.
5. Vagbhatta, Ashtanga Hridaya with Sarvanagasundara Commentary of Arunadatta and Ayurveda Rasayana Commentary of Hemadri, edited by Pt. Bhisagacharya Harishastri Paradkar Vaidya, Chowkhamba Krishnadas Academy, Varanasi, 2006, Uttara Sthana, Chapter-40, Verse 35, pp-956, pg-942.

6. Agnivesha, Charaka Samhita with the Ayurveda dipika Commentary of Chakrapanidatta, edited by Vaidya Yadavji Trikamji Acharya, Chawkhamba krishnadas Acadamy Varanasi, 2010, Vimana Sthana, Chapter-5, Verse-19, pp-738, pg-251.
7. Acharya Sushruta, Sushruta Samhita of Acharya Sushruta with Nibandhasangraha Commentary of Dalhanacharya and Nyayachandrika Panjika of Gayadasa on Nidana Sthana, edited by Yadavji Trikamji Acharya, Chowkhamba Krishnadas Academy, Varanasi, 2004, Shareera Sthana, Chapter- 1, Verse-3, pp-824, pg 344.
8. Acharya Sushruta, Sushruta Samhita of Acharya Sushruta with Nibandhasangraha Commentary of Dalhanacharya and Nyayachandrika Panjika of Gayadasa on Nidana Sthana, edited by Yadavji Trikamji Acharya, Chowkhamba Krishnadas Academy, Varanasi, 2004, Shareera Sthana, Chapter-6, Verse-24, pp-824, pg 372.
9. Sahastrayoga sampadak vaidya Mahendra pal singh arya, CCRAS prakashan New Delhi Tritiya Prakran Churna yog. 90 pg. 197.