



AYURVEDIC MANAGEMENT OF SHUKRADUSHTI W.S.R TO OLIGO-ASTHENO-TERATOZOOSPERMIA (OAT) – A CASE STUDY

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ABSTRACT:

In India 10-15% of married couple suffer from infertility. This is due to changes in lifestyle, occupational stress etc. 30-40% of the cases of infertility are due to the male factor. Oligospermia, Asthenospermia, Teratospermia etc. are the commonest causes seen in cases of male infertility. A 28-year-old male, with 6 years of marital life complained of inability to conceive. His wife had regular cycles and all her investigations done were found to be normal. Patient was sent for semen analysis and he was diagnosed with Oligo-astheno-teratozoospermia (OAT). He was given a combination of *Gokshura churna*, *Ashwagandha churna*, *Kawach beeja churna*, *Kokilaksha churna* and *Trivanga bhasma* along with *Makaradhwaja vati*. There was significant improvement in his seminal parameters. Sperm count improved, motility of the sperms showed progressive changes and number of abnormal sperms reduced after treatment

Keywords: *Shukradushti*, *Vajikarana chikitsa*, Oligospermia, Asthenospermia, Teratospermia

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INTRODUCTION

The key factors responsible for the formation of *Garbha* are – *Ritu*, *Kshetra*, *Ambu* and *Beeja* which are collectively known as the *Garbha Sambhava Samagri*. *Beeja* corresponds to the *Streebeeja* (ovum) in females and *Shukra* (sperm) in male. Prime function of *Shukra* is *Garbhotpadana*. Factors like stress, grief, over exertion, excessive intercourse, certain diseases etc. cause vitiation of doshas leading to *Shukradushti*, affecting the fertility in man. 8 types of *Shukradushti* have been explained which are – *Vataja*, *Pittaja*, *Shleshmaja*, *Kunapagandhi*, *Granthi*, *Puya*, *Ksheena*, & *Mutrapureesha retas*. *Mutrapureesha retas* is due to vitiation of *tridoshas* and is said as *Abeeja* i.e which will not result in formation of *Garbha* [1].

Infertility is a condition which affects the personal, social and mental health of the couple. It is estimated that 10-15% of married couple suffer from infertility. Due to changing social system, professional life and academic achievements, more and more couple face this problem. In India, commonly held notion about infertility is that it is due to the female partner. However, in actual life both partners contribute equally to infertility [2]. Male is directly responsible in about 30-40% cases of infertility [3]. Hormonal factors, sexual dysfunction, psychological and environmental

factors, chronic illnesses etc. leads to low sperm concentration (Oligospermia), poor sperm motility (Asthenospermia) and abnormal sperm morphology (Teratospermia). When all 3 abnormalities are seen together, it is known as Oligo-astheno-teratozoospermia (OAT). Generally, in modern science no treatment options are available except to opt for Donor insemination, especially in cases of Teratospermia and Asthenospermia [4].

In *Ayurveda*, *Vajikarana* or *Vrishya Chikitsa* has been explained for enhancing the reproductive health of man. It is included among the *Ashtangas* of *Ayurveda*. According to *Charaka Samhita*, it is stated that with the proper use of *Vajikarana dravyas*, one becomes endowed with good physique, strength, complexion, sexually exhilarated and potent like a horse. *Vrishya dravyas* are commonly administered in sexual dysfunctions and infertility [5].

CASE STUDY

A male patient aged 28 years, with marital life of 6 years, visited OPD in September 2022 with complaints of inability to conceive despite of regular unprotected coitus. He works in a bakery and he complained of generalized weakness and lethargy throughout the day. His wife had regular cycles and all her investigations done were found to be normal. Patient was suggested for a semen analysis

and he was detected with Oligo-astheno-teratozoospermia (OAT).

History of past illness

- No h/o DM, HTN, TB, Thyroid disorders.
- No h/o trauma, surgery.
- No h/o allergy.

Personal history –

- Diet - Mixed
- Appetite - Normal
- Bowel - Regular
- Micturition - Regular
- Sleep - Sound
- Habit - Occasional Alcohol consumption

Coital history –

- Patient has difficulty in maintaining erection during intercourse.
- Post-act exhaustion ++

General examination

- Height - 170cm
- Weight - 68kg
- Built - Moderate
- No enlargement of thyroid

Local examination

- Secondary sexual characters – normal.

- No varicocele, no oedema, no redness.

Treatment given

Patient was given a combination of *Gokshura churna* – 30gm, *Ashwagandha churna* – 30gm, *Kawach beeja churna* – 30gm, *Kokilaksha churna* – 20gm and *Trivanga bhasma* – 5gm and was advised to have 1 tsp of the combination with milk and *Makaradwaja Vati (Baidyanath)* 1 tablet twice a day for a duration of 40 days along with *pathya ahara-vihara* for 3 months.

Pathya – *Go ksheera* with *Go ghrita*, Fruits - pomegranate, watermelon, *Yava*, *Godhuma*, *Mamsa rasa*.

Apathya – Avoid alcohol, exposure to heat, stress.

Follow up – Monthly follow up upto 3 months.

Semen analysis after 3 months.

RESULT

1st follow up – c/o generalized weakness reduced.

2nd and 3rd follow up – c/o erectile dysfunction and post-act exhaustion reduced.

Semen analysis was repeated after the 3rd follow up.

Table No.1- Semen analysis before and after treatment

	Before Treatment	After Treatment
Quantity	1ml	2ml
Colour	Colourless	Colourless
Liquefaction time	Within 35mins	Within 30mins
Viscosity	Normal	Normal

Fructose	Present	Present
Count	4 million/ml	20 million/ml
Motility	35%	90%
Fast motility	10%	45%
Moderate motility	20%	40%
Sluggishly motile	5%	5%
Non motile	65%	10%
Abnormal forms	67%	30%
Pus cells	2-4	Absent

Significant changes were observed in the seminal parameters just with oral medications and pathya ahara-vihara. Sperm count improved from severe stage of oligospermia to normal limits. Motility of the sperms also showed progressive changes from 35% to 90%, in which 45% sperm showed fast motility. Number of abnormal sperms reduced to 30% and pus cells were absent after treatment.

DISCUSSION

In the present study, due to *aharaja-viharaja* factors like untimely food, alcohol consumption, stress, constant exposure to heat as he works in a bakery etc. led to the vitiation of *vata-pitta doshas* which caused *ksheena sukradushti*, which is the possible *ayurvedic* correlation of OAT. Patient was advised to have timely meals, avoid alcohol and avoid heat exposure as much as possible as heat suppresses spermatogenesis.

The development of sperm takes 72 days and entire spermatogenesis including transit time in the duct take 3 months [6]. Therefore, to understand and analyze the result of treatment given for *Shukradushti*, one should wait a minimum period of 3 months.

Shukra is a *Soumya dhatu*. For improving the quality of *shukra*, drugs administered should be *madhura rasa* and *sheeta virya* which promotes the *soumyata* in the body. According to *Acharya Charaka*, *vrishya dravyas* possesses 6 *gunas* i.e, *madhura, snigdha, jeevana, brimhana, guru* and *harshana* [6]. In the present study, most of the drugs given possessed *madhura rasa, snigdha-guru guna, sheeta virya, madhura vipaka* and all were *vrishya* in its *karma*.

Table No. 2 – Rasapanchaka of the Oral Medicines [8,9]

	<i>Rasa</i>	<i>Guna</i>	<i>Virya</i>	<i>Vipaka</i>	<i>Karma</i>
Gokshura	<i>Madhura</i>	<i>Guru, Snigdha</i>	<i>Sheeta</i>	<i>Madhura</i>	<i>Vrishya, Mutrala, Rasayana</i>
Ashwagandha	<i>Katu, Tikta, Kashaya</i>	<i>Snigdha, Laghu</i>	<i>Ushna</i>	<i>Katu</i>	<i>Sukrala, Balya, Rasayana</i>
Kawachbeeja	<i>Madhura, Tikta</i>	<i>Guru, Snigdha</i>	<i>Sheeta</i>	<i>Madhura</i>	<i>Vajikarana, Balya, Brimhana</i>
Kokilaksha	<i>Madhura, Amla, Tikta</i>	<i>Picchila, Snigdha</i>	<i>Sheeta</i>	<i>Madhura</i>	<i>VP hara, Sukra shodhaka, Balya</i>
Trivanga bhasma					<i>Vrishya, Deepana, Balya</i>
Naga	<i>Tikta</i>	<i>Snigdha, Guru</i>	<i>Ushna</i>	-	<i>Balya</i>
Vanga	<i>Tikta</i>	<i>Laghu, Ruksha</i>	<i>Ushna</i>	-	<i>Shukra vardhanam, Kama vardhana, Vrishya</i>
Yashada	<i>Kashaya, Katu</i>	<i>Sheeta</i>	<i>Sheeta</i>	-	<i>Bala-Virya vriddhi</i>
Makaradhwaja Vati (Baidyanath)					
Swarna bhasma	-	-	-	-	<i>Vrishya</i>
Shuddha Parada	<i>Shadrasa</i>	<i>Snigdha, Sara, Guru</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Sukrala, Yogavahi</i>
Shuddha Gandhaka	<i>Madhura</i>	<i>Sara</i>	<i>Ushna</i>	<i>Katu</i>	<i>Virya vriddhi</i>
Jatiphala	<i>Tikta, Katu</i>	<i>Laghu, Tikshna</i>	<i>Ushna</i>	<i>Katu</i>	<i>Vrishya, Hridya</i>
Maricha	<i>Katu</i>	<i>Laghu, Tikshna, Sukshma</i>	<i>Ushna</i>	<i>Katu</i>	<i>Ruchya, Deepana</i>
Karpura	<i>Tikta, Katu, Madhura</i>	<i>Laghu, Ruksha</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Yogavahi, Vrishya, Medhya</i>

Gokshura is madhura in rasa and vipaka, it is guru, snigdha in guna and has sheeta virya. It

has deepana, pachana, vrishya, brimhana karma. Fruits of gokshura have been used in

treatment of infertility, impotence, erectile dysfunction and low libido ^[10]. Its two main components - protodioscin and protogracillin are responsible for aphrodisiac activity. Protodioscin works by increasing the conversion of testosterone into the potent dihydrotestosterone, which stimulates not only increase in the sex drive but also the production of red cells from bone marrow along with muscular development contributing to improvement of blood circulation and oxygen transport ^[11].

Ashwagandha is a widely used drug in conditions related to male sexual health. *Ashwagandha moola churna* has significant anti-anxiety effects ^[12]. It mainly helps to balance the effects of stress factors contributing to male infertility. Cortisol is the hormone produced in response to stress. Increased level of cortisol may reduce the functional activity of LH, thereby reducing testosterone level. Reduced testosterone level in turn reduces libido and leads to oligospermatogenesis ^[13]. *Ashwagandha* has proven effects in this condition.

Kawachbeeja (Kapikacchu) is a *vrishya dravya*. It is a core ingredient in many *vajikarana* formulations. It is *balya* and helps to balance the *vata*. It was documented to possess powerful aphrodisiac activity and to improve the sex hormone level and sperm parameters

^[14]. It improves male fertility by its action on the hypothalamus-pituitary-gonadal axis, increasing sperm count and testosterone levels. L-Dopa and dopamine present in it are successful inhibitors of prolactin, that is responsible for 70-80% of erection disappointment in man ^[15].

Kokilaksha possesses *madhura, amla, tikta rasa, picchila, snigdha guna, sheeta virya* and *madhura vipaka*. It is a potent *sukrashodhaka*. Traditionally seeds of *kokilaksha* are used as an aphrodisiac and in treatment of spermatorrhea and impotence. Its constituents arecoline, apomorphine and L-Dopa shows spermatogenic and aphrodisiac potential ^[16].

Trivanga bhasma has *shodhita Naga, Vanga* and *Yashada* as its key ingredients. It possesses *deepana, balya, medohara, vrishya* and *tridosha shamana* properties ^[17]. It is commonly administered in conditions like diabetes, UTI and infertility. As it is a *bhasma*, it works wonders due to their easy penetrability. It enhances the absorption and assimilation of the drug into the body, thereby helping faster action. It shows good result in improving the sperm count.

Makaradhwaja vati is a preparation which is commonly given in conditions of erectile dysfunction, general debility, spermatorrhea etc. Its key ingredients are *Swarna bhasma*,

Shuddha Parada and *Shuddha Gandhaka*. Most of the ingredients possess *vrishya* and *shukrala karma*. They improve the virility and strength in man.

CONCLUSION

The present case study shows that there is wide scope for *Ayurvedic* research in the field of *Vajikarana chikitsa*. Azoospermia and OATS contribute around 40% of cases each as a cause for infertility [18]. Modern science has only limited options as they will suggest to opt for a donor insemination in such conditions, whereas, just with the proper administration of *ayurvedic* medications and *pathya ahara-vihara*, profound changes were observed in the patient. In the current era, where number of infertility centers are hiking up, *Vajikarana chikitsa* can serve as a boon for the society.

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Patient's Name : [Redacted]
Age / Sex : 28 Years / Male
Referred By : Mhaskar
Sample Collected At : [Redacted]

Patient ID : PL2208205
Hos Rno : [Redacted]
Reg Date : 02/08/2022 03:55 pm
Print Date : 03/08/2022 04:00pm

SEMEN ANALYSIS.

Investigation	Observed Value	Unit	Biological Reference Interval
Quantity	1 ml		1.5 - 4.5 ml
Colour	colour less		Colourless
Liquification Time	within 35 min		Within 30 min
Viscosity	Normal		Normal
Fructose	Present		Present
Count:	4	million/ml	20 - 120
MOTILITY:	35%		> 50%
Grade IV (Fast motility crossing field)	10	%	
Grade III (moderate motility)	20	%	
Grade II (Sluggishly motile)	05	%	
Grade I (non motile)	65	%	
Abnormal Forms:			
Head	67	%	
Body	30	%	
Tail	17	%	
Pus Cell	20	%	
Rbcs	2-4	/hpf	
Epithelial cells	Absent	/ hpf	
Sperm Agglutination	Absent		
Trichomonas	Absent		
Fungus	Absent		
Bacteria	Absent		
Note :	Few immature sperm seen.		

*** END OF REPORT ***

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Patient's Name : [Redacted]
Age / Sex : 28 Years / Male
Referred By : Kavita Todkar
Sample Collected At : [Redacted]

Patient ID : PL23010269
Hos Rno : [Redacted]
Reg Date : 04/01/2023 04:05 pm
Print Date : 04/11/2023 08:53pm

SEMEN ANALYSIS.

Investigation	Observed Value	Unit	Biological Reference Interval
Quantity	2 ML		1.5 - 4.5 ml
Colour	colour less		Colourless
Liquification Time	within 30 min		Within 30 min
Viscosity	Normal		Normal
Fructose	Present		Present
Count:	20	million/ml	20 - 120
MOTILITY:	90%		> 50%
Grade IV (Fast motility crossing field)	45	%	
Grade III (moderate motility)	40	%	
Grade II (Sluggishly motile)	5	%	
Grade I (non motile)	10	%	
Abnormal Forms:			
Head	30	%	
Body	12	%	
Tail	8	%	
Pus Cell	10	%	
Rbcs	Absent	/hpf	
Epithelial cells	Absent	/ hpf	
Sperm Agglutination	Absent		
Trichomonas	Absent		
Fungus	Absent		
Bacteria	Absent		

*** END OF REPORT ***

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