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## MANAGEMENT OF *KSHEENA SHUKRA* W.S.R AZOOSPERMIA

### A CASE STUDY

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#### ABSTRACT:

According to world health organization, both women and men can experience infertility, women in a relationship with a man are often perceived to suffer from infertility, regardless of whether they are infertile or not. Globally 48 million couples and 186 million individuals live with infertility. Approximately one in six people have experienced infertility at some stage in their lives globally. Male infertility is most commonly caused by problems in the ejection of semen, absence or low levels of sperm, or abnormal shape (morphology) and movement (motility) of the sperm. Availability, access, and quality of interventions to address infertility remain a challenge in most countries. A 38-year old married male patient attended the outpatient department at BMARI (Bandaranayake Memorial Ayurveda Research Institute), presenting with the complaints of failure to conceive since 9 years. The patient did not complain any problems with erections, orgasm, or ejaculation and he was not taking any medication for any systemic disorders. Previous history of mumps is noted at his childhood with the involvement of bilateral testicles. Seminal fluid analysis (SFA) revealed that 1.8ml volume and zero 0.00 million/ml sperm concentration. This case was managed with *Amapachana* – *Agni deepana* followed by *Virechana*(Purgation) and *Vasti Karma*(Enema) according to line of treatment for *Shukra Dosha* as mentioned in Ayurveda. After the treatment, 3.1 ml volume and 20.5 million/ml Sperm concentration were observed and achieved pregnancy successfully. Hence, present study signifies the positive outcome of Ayurveda line of treatment for male defect with minimal time duration.

**Key words:** Azoospermia, *Ksheena shukra*, *Shukra Dosha*

## INTRODUCTION:

Azoospermia is defined as the absence of spermatozoa in the semen. If no spermatozoa are observed in the wet preparation, the World Health Organization (WHO) recommends an examination of the centrifuged sample (3000 X g or greater for 15 minutes).<sup>[1]</sup> As per World Health Organization (WHO), a low sperm count is less than around 15 million per ml. It is identified in approximately 1% of all men and in 10 to 15% of infertile males.<sup>[2]</sup> Chromosomal or genetic abnormalities should be evaluated because the prevalence of chromosome abnormalities is higher in infertile men.<sup>[3]</sup> In Ayurveda there are eight types of *Shukra dosha* <sup>[4]</sup> (Pathological defects of sperm/ semen) described in *samhitas*. They are *Vataja*, *Pittaja*, *Kaphaja*, *Kunapa*, *Granthi*, *Puti*, *Puya* and *Ksheena*.<sup>[5]</sup> *Ksheena shukra* is *Vata-pitta* predominant and *Upashaya* as denoted in *Susruta Samhita*.<sup>[6]</sup> Ayurveda elaborates the management of all diseases, causes and complication related with male fertility in a separate branch called *Vajeeekarna Tantra* (Branch of Aphrodisiac therapy).<sup>[7]</sup> *Shodhana karma* that means *panchakarma* therapy is the supreme veneration which is mentioned in the Ayurveda classics for different types of *Shukra dushti*.<sup>[8]</sup> In this present case study, the patient who was suffering from Azoospermia was treated with *Amapachana- Agni deepana, Virechana* procedure followed by *Vasti Karma* and administration of *Tarpana* medication.

Aim and Objective of the case study was to determine the efficiency of following treatment protocol in the management of Azoospermia and to promote further research.

## CASE REPORT:

A 38-year old married male patient consulted the BMARI hospital with chief complaint of failure to conceive since 9 years. As other complains he was suffering from chronic rhinorrhea and type II diabetes mellitus already on allopathic medication. In his past medical history, he had Mumps infection at his childhood and his B/L testicles were enlarged after the infection. His female partner underwent six IUI (Intra Uterine Insemination) and they were failed. Bowel habit and bladder habit were normal and surgical history revealed that he was done a tympanoplasty and no any other surgical history. According to personal history, frequent cigarette smoking and occasional alcohol intake were observed. On general examination, built was average and weighing 70kgs. Radiological ultrasound revealed (USS Scrotum) B/L mild testicular atrophy with

vericocele. Seminal Fluid Analysis (SFA) revealed Volume 1.8ml, Appearance and viscosity are normal. Sperm concentration 0.00 million/ml. Motility, progressive motility, non-progressive motility, Immortality, Morphology, velocity were not applicable and pus cells were occasionally seen. The treatment was *Ama pachana* (digestion of undigested materials), *Agni deepana* (enhancement of digestive and tissue level fire) *Srotosodhana* (clear channel) and *Vata Anulomana* (downward movement of *Vata*) followed by *Tarpana* treatment.

The sequence of treatment was as follows;

**Preparatory Therapy:** The initial treatment with *Amapachana* – *Agni deepana*

1. *Chirabilwadi kwatha* 30ml/two times a day (M/E)
2. *Kaishora Guggulu* 2/ two times a day (M/E)
3. *Avipattikara churna* 5g/ two times a day (M/E)
4. *Manibhadra churna* 5g/ at night

For first 14 days *Amapachana* – *Agni deepana* were administrated to regularize tissue level metabolism. As describes in Ayurveda basics, *Agni Vishamya (Aama)* is main root cause of all disease. Hence the treatment plan should be focused on *Amapachana* – *Agni deepana* followed by *Vata anulomana* to eradicate vitiated *ama* and regulate the movement of *vata dosha*.

The given treatment schedule was as per given below Table 1.

**Table-1: Timeline of case study**

Date and Year	Clinical events and Intervention
2022.04.16	<p>Patient was admitted to IPD unit of <i>Stree Roga &amp; Prasuti Tantra</i>.</p> <p>On the basis on SFA findings</p> <p>Drug and procedures were advised to continue as below</p> <p><i>Aama pachana</i> drugs(14 days) were completed before get admission on ward</p>

**2022.04.18****1. Virechana karma**

- *Poorva Karma*

*Snehapana*

Date	4/18	4/19	4/20	4/21	4/22
<i>Gritha</i>	20ml	30ml	40ml	50ml	60ml
<i>Olive oil</i>	5ml	5ml	5ml	5ml	5ml
<i>Ashwandha oil</i>	10ml	10ml	10ml	10ml	10ml

**2022.04.23***After Samyak snigdha Lakshana,**Sarvanga Sweda for 3 days**Sarvanga Abayanga – with Sarsapa Taila in whole body for 20 min**Swedana with Dasamula Kwatha in Steam box for 30 min*

- *Pradhana Karma - Virechana*

*Virechana Dravya**Aralu ( Haritaki) + Bulu ( Vibithaki)**Kashaya = 240ml with 10 ml Eranda**Taila*

- *Pashchat Karma - Samsarjana Karma for 3 days*

*Peya, Vilepi, Manda***2022.04.26****2. Shatavari Ksheera paka Basti for 10 days**

<i>Shatavari</i>	30g	}	Milk 600ml
			Water 900ml
<i>Ashwagandha</i>	30g		Boil till remain milk part

**2022.05.06****3. Matra basti for 7 days**

- *Poorva Karma* – *Abayanga* with *Sarsapa Taila* in lower abdomen and lower back
- *Pradana Karma* – *Ksheera bala* oil 60ml *Matra Basti*
- *Paschat Karma* – left lateral position

**4. Maduthailika basti 7days**

- *Poorva Karma* – *Abayanga* with *Sarsapa Taila* in lower abdomen and lower back
- *Pradana Karma* – *Maduthailika basti*

*Eranda moola kashaya* 240ml*Saindava lavana* 48g

Bee honey 48ml

*Ashwagandha churna* 10g*Shatavari churna* 10g

- *Paschat Karma* – left lateral position

**Patient was**Oral medication (Started simultaneously with the *Marta Basti*)**discharged on**

- *Kaishora guggulu* 2 Pills / two times a day

**20/5 /2022 and**

- *Ashwagandha Churna* 5g/ two times a day

**treated OPD level****from 21st May****2022****Duration of treatment:** Time period for total treatment plan was 6 weeks.***Patya – Apatya:***

***Patya:*** Patient was advised to take *Shali dhanya* (rice), *Godhuma* (wheat), *Mamsa* (meat), *Ksheera* (milk), *Dadhi* (curd), *Gritha* (ghee), *Navanita* (butter), *Karjura* (dates), *Amalakai phala* (amla), *Lashuna* (garlic), *Guda-sharkara* (jaggery) as *patya ahara* while to take proper *Nidra* (Adequate sleep), *Abhyanga* (oil massage), *Snana* (bath), Stay clean

environment, *Padatraana dharana* (Brisk walking) and *Vyayama* (light exercises) *Vega adharana* (Evacuation of natural urges like urine, feces etc. at proper time.)

**Apatya:** Patient was advised to avoid *Dahi Sevana*, *Ati Katu-Tikta-Lavana rasa sevana*, *Sarshapa Thaila*, *Guru and Viruddha bhojana*, Excessive oily, fried, spicy food items, fast food, Ice-cream, Cold drink, bread, biscuit, alcohol, Tobacco, Tea and coffee. Advised to avoid *Atimaithuna* (Excessive coitus), *Atishrama* (Excessive exercises), *Shukra vega dharana* (Suppression of urge of ejaculation of semen), Suppression of natural urge etc.

**RESULT:**

According to the SFA findings,

**Table-2: Examination of Seminal Fluid Analysis**

<b>Feature</b>	<b>Before treatment</b>	<b>After treatment</b>	<b>Remarks</b>
<b>Volume</b>	1.8ml	3.4ml	↑
<b>Appearance</b>	Normal	Normal	-
<b>Viscosity</b>	Normal	Normal	-
<b>Sperm concentration</b>	0.00 million/ml	20.5 million/ml	↑
<b>Motility</b>	Not applicable	10%	↑
<b>Progressive motility</b>	Not applicable	0	-
<b>Non – Progressive motility</b>	Not applicable	10%	↑
<b>Immotility</b>	Not applicable	90%	↑
<b>Morphology</b>	Not applicable	Not applicable	-
<b>Total sperm number</b>	Not applicable	69.7 millions	↑
<b>Motile sperm</b>	Not applicable	6.9 millions	↑
<b>Total progressive motile sperm</b>	Not applicable	0 millions	-
<b>Total functional sperm</b>	Not applicable	Not applicable	-
<b>Total morphologically normal sperm</b>	Not applicable	Not applicable	-
<b>Sperm motility index</b>	000	000	-
<b>Motile sperm concentration</b>	Not applicable	2.1 million/ml	↑
<b>Progressively motile sperm concentration</b>	Not applicable	0 million/ml	-

<b>Functional sperm concentration</b>	Not applicable	Not applicable	-
<b>Velocity</b>	Not applicable	<1 mic/sec.	↑
<b>Pus cells</b>	Occasional/hpf	Occasional/hpf	-

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PATHOLOGY

REFERENCE No. : 01 141 14/10/19 AGE : 34 Y  
SAMPLE DATE & TIME : 14/10/2019 22:03  
REPORT DATE & TIME : 15/10/2019 01:04 ahb6719 / AH0683  
PATIENT :  
REFERRED BY : DR G T S WICKRAMAYAKE

TEST	RESULT
<b>SEMINAL FLUID ANALYSIS.</b>	
VOLUME	1.8 ml
APPEARANCE	NORMAL
VISCOSITY / LIQUIFACTION	NORMAL
Sperm Concentration	0.00 millions/ml
Motility (FR+HP)	NOT APPLICABLE
* Progressive Motility (FR)	NOT APPLICABLE
* Non Progressive Motility (HP)	NOT APPLICABLE
Immotility	NOT APPLICABLE
Morphology : % normal forms (WHO 5th).	NOT APPLICABLE
Total Sperm Number	NOT APPLICABLE
*Motile Sperm	NOT APPLICABLE
*Total Progressive Motile Sperm	NOT APPLICABLE
*Total Functional Sperm	NOT APPLICABLE
*Total Morphologically Normal Sperm	NOT APPLICABLE
SPERM MOTILITY INDEX (SMI)	000
Motile Sperm Concentration (MSC)	NOT APPLICABLE
*Progressively Motile Sperm Concentration	NOT APPLICABLE
Functional Sperm Concentration (FSC)	NOT APPLICABLE
Velocity (Average path Velocity-VAP)	NOT APPLICABLE
PUS CELLS	Occasional /H.P.F.

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PATHOLOGY

REFERENCE No. : 01 0264 30/05/22 AGE : 39 Y/M  
SAMPLE DATE & TIME : 30/05/2022 10:01  
REPORT DATE & TIME : 30/05/2022 12:15 AH02001555 / ALS2009833  
PATIENT :  
REFERRED BY : DR H L H SAJJERANI

TEST	RESULT
<b>SEMINAL FLUID ANALYSIS.</b>	
VOLUME	3.4 ml
APPEARANCE	NORMAL
VISCOSITY / LIQUIFACTION	NORMAL
Sperm Concentration	20.5 millions/ml
Motility (FR+HP)	10 %
* Progressive Motility (FR)	0 %
* Non Progressive Motility (HP)	10 %
Immotility	90 %
Morphology : % normal forms (WHO 5th).	NOT APPLICABLE
Total Sperm Number	69.7 millions
*Motile Sperm	6.9 millions
*Total Progressive Motile Sperm	0 millions
*Total Functional Sperm	NOT APPLICABLE
*Total Morphologically Normal Sperm	NOT APPLICABLE
SPERM MOTILITY INDEX (SMI)	000
Motile Sperm Concentration (MSC)	2.1 millions/ml
*Progressively Motile Sperm Concentration	0 millions/ml
Functional Sperm Concentration (FSC)	NOT APPLICABLE
Velocity (Average path Velocity-VAP)	< 1 mic/Sec.
PUS CELLS	Occasional /H.P.F.
RBC CELLS	Nil /H.P.F.

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Before Treatment

After Treatment

Figure 1: Seminal Fluid Analysis

**DISCUSSION:**

According to *Charaka Samhita Vimanasthana* 7, elimination therapy (*shamshodana*), alleviation therapy (*samshamana*) and avoidance of causative factors these three principles of treatment along with their proper procedure should be adopted for the treatment of each and every disease by the physician.

The line of treatment in *Kheena shukra* is "*Ksheene shukrakari kriya*" that means the *dravyas* which can increase the sperm count (*shukra*) composed of *Madhura rasa* (Sweet taste),



*Snigdha* (Unctuous), *Guru guna* (Heavy qualities), *Jeevaniya* (Promotes quality of life) and *Brumhana* (Nourishing property) should be given. Azoospermia treatment should be planned with *Vataja Pittaja Sukradustihara Yogas* based on *Dosha*.

In Ayurveda among eight branches a separate branch has reserved for *Vajeekarana* (Aphrodisiac) purpose. The concept of *Vajeekarana* described in *Ashtanga Ayurveda* is a special branch of treatment modalities which improves the function of reproductive system and enhance sexual functions which helps to prevent *Shukra dosha* and promotes healthy progeny. There are three subtypes mentioned in *Vajikarana cikitsa*.

They are,

1. *Shukrala* – Enhance sperm count and spermatogenesis
2. *Shukra Rechaka* – promotes ejaculation of semen
3. *Shukra Karaka* and *Rechaka*- which has both above properties

Based on above treatment principles a treatment plan with multiple treatment modalities were applied in the present case.

The application of the procedure of *Virechana* is a broad spectrum clinical modality, and well known purification process for *Pitta dosha*. *Shroto shodhana* is expected its virtue of *shodhana* and thus it improves the *Dhatu poshana krama*. Application of *Vajikarana aushadha* followed by *virechana* gives better results due to better absorption utilization without any other complications when compared with modern medicines.

*Withania somnifera* (*Ashwagandha*) roots improves the quality of semen by enhancing the sperm count, motility, regulating normal levels of reproductive hormones while inhibition of peroxidation of lipid. *Kheerapaka basti* followed by *Virechna* which is composed of *Madhura Rasa, Guru, Snigdha Gunas, Sheeta Virya, Madhura Vipaka, Balya, Vrishya* and *Shukrala* action of drugs provided a better improvement in sperm count and motility. This shows that if plan of treatment is selected according to principles of Ayurveda along with proper drug, dose, duration, *Anupana, Pathya* and *Apathya* there is assertion of progress in the treatment.

## CONCLUSION:

On the basis of analysis of results of after and before treatment, it can be concluded that the above treatment plan effective in the management of *Ksheena Sukra* (Azoospermia).

## PATIENT'S CONSENT:

The patient has been informed the nature of this study before the commencement of study and written consent has been obtained.

## ACKNOWLEDGEMENTS:

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**CONFLICT OF INTEREST:** There is no conflict of interest.

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