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Management of male infertility due to oat syndrome (*Shukra Dusti*)-a single case report

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Abstract

Infertility is failure to achieve a pregnancy after 1 year or more of regular unprotected sexual intercourse. *Shukra Dusthi* is a condition in which the quality and quantity of the *Shukra dhathu* is affected.. OAT Syndrome includes Oligospermia, Asthenospermia, Teratozoospermia.A male subject of 35 Years Visited Kayachikitsa OPD of Taranath Government ayurveda Hospital, ballari with chief complaints of unable to get a child since married life of 7 years, on further evaluation Diagnosed as OAT syndrome, subjected to *Deepana pachana* with *Trikatu churna* followed by *virechana karma* and then administered *Kapikacchu ghana vati, Swarna vasanta malati Rasa* and 500mg capsule 2TID*(kustha churna, Amalaki Churna, Trikatu churna)* Seminal parameters was assessed before and after the treatment. Before treatment sperm count was 04 Million/ml, sperm motility which was 12%, normal forms< 4% improved to sperm count 60 million/ml, Sperm motility 67%(RLP+SLP), normal forms >5% after *virechana* and *shamana chikitsa*.

Key words – OAT Syndrome, *Shukra Dusthi, virechana karma, Kapikacchu, Swarna vasanta malati rasa*

INTRODUCTION

Male infertility is an issue in a man that lowers the chances of his female partner getting pregnant[1]. It is estimated that infertility affects 8–12% of couples globally, with a male factor being a primary or contributing cause in approximately 50% of couple[2]. *Shukra Dusthi* is a condition in which the Quality and Quantity of the *Shukra dhathu* is affected. *Shukra dusthi are*

phenila, tanu, ruksha, vivarna, pooti, pichhila, avasadi and anya dhatu samsrushta[3] *While sushrutacharya has mentioned 11 types of shukra dushti which are vataja, pittaja, kaphaja, raktaja, kunapagandhi, granthibhuta, pooti- puya yukta, ksheena, mutra purisha yukta and sannipataja*[4]. OAT Syndrome includes Oligozoospermia, Asthenozoospermia, Teratozoospermia. Oligospermia is a decrease in the sperm count in semen below 15 million sperm per ml. Asthenospermia is reduced sperm motility below 40%(RLP+SLP) and Teratozoospermia is Abnormal sperm morphology[5]. OAT Syndrome is one of the major cause for male infertility.

MATERIALS AND METHODS

CASE REPORT

- A male Patient aged about 35 years has visited Kayachikitsa Opd, Taranath Government Ayurvedic Medical College and Hospital was treated complaining of unable to conceive even after unprotected sexual intercourse since 7 years of married life Associated with *Dourbalya, Mukha shosha*, Dull testicular Pain and Watery Semen Discharge On the basis of patient's complaints and semen analysis reports patient was diagnosed as OAT Syndrome.

- **History of Present Illness**

Patient was apparently normal 7 years back. After getting married he was unable to conceive in the partner even after regular unprotected sexual intercourse and assoiciated with Watery semen, Post-coital exhaustion, He attained normal puberty and was non-diabetic, non-hypertensive with good physical built, appetite was normal, with regular bowel habits. Semen analysis report revealed Oligo-Astheno-teratozoospermia(OAT Syndrome) and USG Scrotum suggestive of Bilateral Grade 2 Varicocele. He came to Taranath Government Ayurvedic medical college and Hospital, Ballari for Ayurvedic management. Personal History of patient was Mixed Diet ,6 Hours/day sleep, Soft ware engineer by occupation, Bowel Habits : Regular 1time/day ,Micturation : 4-5 times/day .

General Examination showed Built-Well built, Clubbing/ Cyanosis/ Icterus/ Edema/ Lymphadenopathy : Absent .Vitals were Pulse Rate : 80/min , Respiratory Rate : 16 times/min ,Blood Pressure : 130/70 mm of Hg, body Temperature was : 96.4˚F

ROGI PARIKSHA

Asthavidha Pariksha: *Nadi : Vatapitta ,Mala : Regular 1time/day ,Mutra :4-5 time/day, Jiwha : Nirlipta ,Shabdha : Prakruta ,Sparsha : Prakruta ,Drik: Pandu ,Akruti : Madhyama*

On **Systemic Examination found that** CNS is Intact with Higher mental functions, CVS:S1S2 Heard, No any abnormalities observed, RS: Air entry bilaterally Equal, No any added sounds observed, P/A : Soft, Non-tender, No organomegaly.

On **Local Examination** Penis skin texture, prepuce, external ureteral meatus- Normal,

scrotum: No any Scars, swelling, lesion, Hydrocele , Testis: both testis descended, Tenderness +, Spermatic cord: Soft, palpable, Tender ,Secondary sexual characters : Present , Cremasteric reflex: Present. Semen Analysis before treatment was: Semen volume: 1ml, Sperm Count: 04 Million/ml, Sperm Motility(RLP=SLP): 12%, Morphology: Normal forms 4%

Treatment Protocol

- ***Deepana pachana*** with *Trikatu Churna* 3gms TID for 3 days .

VIRECHANA KARMA

- *Snehapana* with ***Dadimadi Gritha***[6], Test dose: 50ml, followed by 75ml, 100ml, 125ml, 150ml and samyak snigdha lakshanas observed
- ***Sarvanaga abyanga*** with *yastimadhu Taila* followed by *mridu baspha sweda* for 03 days during *visrama kala*
- ***Virechana*** with *Nimbhamrutha Eranda Taila* with 100ml Milk.

VAJIKARANA CHIKITSA

- Tab *Kapikacchu Ghana vati* 1-1-1 for 45 days (Before food)
- Tab *Swarna vasantha malati* 0-1-0 for 45 days(After food)
- *Bhargava prokta Rasayana* 10gms for 45 days Before food early morning with Milk
- *Kustha churna+ Amalaki Churna+Trikatu Churna* made into capsule 500mg capsule 1-1-1 for 45 days (Before Food)

OBSERVATION & RESULT

Effect of virechanottara shamana chikitsa on seminal parameters

PARAMETERS	BEFORE TREATMENT	AFTER VIRECHANA	AFTER SHAMANA CHIKITSA
SPERM VOLUME	1 ml	1 ml	1.5ml
VISCOCITY	Normal	Normal	Normal
SPERM COUNT	04 mil/ml	20 mil/ml	60 mil/ml
SPERM MOTILITY	12%	30%	67%
ACTIVE %	02	20%	42%
SLUGGISH %	10	10%	25%
NORMAL FORMS	04%	50%	>5%

Patient presented with Reduced sperm volume, Reduced sperm count, motility and normal forms was treated after virechana karma it is observed that Sperm count which was 4 million/ml improved to 20 million/ml, motility which was 12% improved to 30%, normal forms from 4 % improved to 50%. There was significant improvement in all the semen parameters after Shamana Chiktsa , semen volume improved to 1.5ml, sperm count improved to 60 million/ml, motility

improved to 67%, normal forms became more than 5% .Semen Parameters became normal.

BEFORE TREATMENT

CARE DIAGNOSTICS

Patient Name	: MR. AVINASH	**Collected**	: 08/08/22, 12:21 PM
Age / Sex	: [redacted] years / Male	**Reported**	: 08/08/22, 05:46 PM
Mobile No.	[redacted]	**Printed**	: 09/08/22, 03:51 PM
Referred by	: C/O TEATREE HEALTHCARE	**Patient ID**	: [redacted]

Test Description	Value(s)	Unit	Reference Range
PATHOLOGY			
Semen Analysis*			Specimen Type : Semen
Date& Time of sample collection	08.08.2022 11.40 AM		
Date & Time of Analysis	08.08.2022 12.40 PM		
Place of collection:	Home Collected		
Duration of abstinence [days]	4	days	2 - 7
Interval between ejaculation & analysis	60	minutes	within 60 Min
PHYSICAL EXAMINATION			
Appearance	White Opalescent		White Opalescent
Liquefaction	60	min	Within 60 minutes
Viscosity	<2	cm	<2cm
Volume [ml]	1.5	ml	≥ 1.5ml
PH	8		≥ 7.2
MICROSCOPIC EXAMINATION			
MOTILITY[% Spermatozoa]			
(a)Progressive	02	%	>32%
(b)Non- progressive	10	%	
(c)Total motility [a +b]	12	%	> 40% [PR + NP]
(d)Immotile	88	%	-
Agglutination	Nil		-
Aggregation	+		-
SPERM CONCENTRATION [10^6/ml]	04		>15 x 10^6spermatozoa
Method : Using NeubauerHemocytometer			
SPERM COUNT[Per ejaculate]	06		>40 x 10^6spermatozoa
SPERM MORPHOLOGY			
Normal	04	%	> 4 % [15% for IVF, ≥4% for ICSI]
Method : Pap Stain			
Head defects	35	%	-
Midpiece defects	10	%	-
Neck defects	25	%	-
Tail defects	26	%	-
IMMATURE GERM CELLS	Nil	/hpf	-
Leucocytes	2-4	/hpf	1 - 5

AFTER VIRECHANA

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TEST REPORT

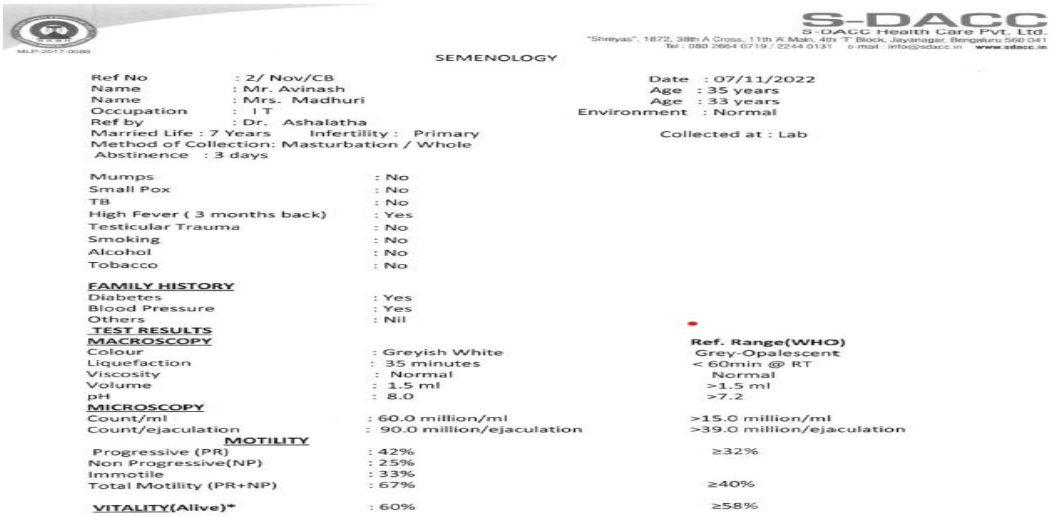
Lab. Id	: P0992533 **Hosp. UHID** :	**Reg. Date**	: 24-Aug-2022 / 09:12 AM
Name	: MR. AVINASH .	**Collection**	: 24-Aug-2022 / 10:25 AM
Age/Gender	: 35Y / Male	**Received**	: 24-Aug-2022 / 10:26 AM
Collected At	: [redacted]	**Report**	: 24-Aug-2022 / 11:13 AM
Referral Dr	: - **Report Status** : Final	**Print**	: 24-Aug-2022 / 11:41 AM

Clinical Pathology

Investigation	Observed Value	Unit	Biological Ref. Interval	Specimen
SEMEN ANALYSIS				
Specimen produced at	9.15 am	Time		Semen
Specimen received at	10.0 am	Time		Semen
Abstinence	3 Days			
PHYSICAL EXAMINATION				
Sample Quantity (semen)	1	Nos		Semen
Volume (ml) semen	1 ml	ml	>1.5 -	Semen
Color (semen)	Gray		Gray opallacent	Semen
Self liquefaction	30 minutes	mins	<30 -	Semen
Viscosity	Normal		-	Semen
CHEMICAL EXAMNIATION				
Reaction (pH) semen	8.0		>7.2	Semen
Fructose	Present		Present	Semen
SPERM COUNT				
No. of sperms / ml	20 million/ml	million/ml	>20	Semen
MOTILITY				
Progressive Motility (PR)	20%	%	>32	Semen
Non-Progressive Motility (semen)	10%	%		Semen
Total Motility (Semen)	30%	%	>40	Semen
Immotile sperms	70%	%	=	Semen
SPERM MORPHOLOGY				
Total Normal Forms	50%	%	>4	Semen
Abnormal Head Forms	40%			
Mid-portion abnormalities	5%	%		Semen
Tail abnormalities	5%			
MICROSCOPIC EXAMINATION				
Epithelial Cells / hpf semen	0-1/hpf			
Leukocytes(Pus cells)/hpf semen	0-1/hpf	/hpf	0-2	Semen
Red Blood Cells / hpf semen	0/hpf	/hpf	0-2	Semen
Sperm agglutination	Absent			

IMPRESSION: The given semen analysis shows low sperm count and motility with normal morphology (Oligoasthenozoospermia)

AFTER SHAMANA CHIKITSA



S-DACC

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Tel : 080 2664 0719 / 2244 0131 e-mail : info@sdacc.in www.sdacc.in

SEMENOLOGY

Ref No	: 2/ Nov/CB	Date	: 07/11/2022
Name	: Mr. Avinash	Age	: 35 years
Name	: Mrs. Madhuri	Age	: 33 years
Occupation	: I T	Environment	: Normal
Ref by	: Dr. Ashalatha		
Married Life : 7 Years	Infertility : Primary	Collected at : Lab	
Method of Collection: Masturbation / Whole			
Abstinence : 3 days			

Mumps	: No	
Small Pox	: No	
TB	: No	
High Fever (3 months back)	: Yes	
Testicular Trauma	: No	
Smoking	: No	
Alcohol	: No	
Tobacco	: No	
FAMILY HISTORY		
Diabetes	: Yes	
Blood Pressure	: Yes	
Others	: Nil	
TEST RESULTS		
MACROSCOPY		**Ref. Range(WHO)**
Colour	: Greyish White	Grey-Opalescent
Liquefaction	: 35 minutes	< 60min @ RT
Viscosity	: Normal	Normal
Volume	: 1.5 ml	>1.5 ml
pH	: 8.0	>7.2
MICROSCOPY		
Count/ml	: 60.0 million/ml	>15.0 million/ml
Count/ejaculation	: 90.0 million/ejaculation	>39.0 million/ejaculation
MOTILITY		
Progressive (PR)	: 42%	≥32%
Non Progressive(NP)	: 25%	
Immotile	: 33%	
Total Motility (PR+NP)	: 67%	≥40%
VITALITY(Alive)*	: 60%	≥58%

DISSCUSSION

- *Ayurveda* give emphasis to the treatment of *Shukradushti* with *shukra shodhaka Dhatuvriddhkara, Balakara, Shukrajanaka, Shukra pravartaka* in terms of increasing the Sperm Count, Motility and Morphology by using *Ayurvedic* drugs. *Shodhana* i.e. *Panchkarma* therapies have been kept in supreme veneration by acharyas in ameliorating different varieties of Shukra dushti.[7]
- *Shukra is Saumya i.e. Jala Mahabhuta Pradhana.* In the pathogenesis of shukra dusthi there is involvement of Pitta and Vata. Pitta is *Agneya Mahabhuta Pradhana,* while *Shukra* is *Jala Mahabhuta Pradhana,* so in order to increase the *Saumyata* one has to decrease the *Agni Tatva,* which can be achieved through *rhashahetuvisheshasya* principle. In order to remove the vitiated Pitta *Dosha, Virechana* is administered. It also eliminates the *Srotorodha* and active transformation of *Dhatu* through *Dhatvagni Vyapara* and the most desirable *Shuddha Shukra* is procured
- *Suvarna vasanta malati Rasa contains Suvarna Bhasma which is Snigdha, Madhura, Kashaya Rasa, Madhura Vipaka, sheeta veerya Vrushya Rasayana, Muktha bhasma is kapha pitta hara, laghu, sheeta, Madhura vrushya along with it Also contains Tamra bhasma, trikatu* etc. helps in improving semen parameters
- Kustha Churna is Tikta katu Madhura ushna veerya having the properties of Shukra Shodhana, Shukrala effect[8]
- *Amalaki* is *having lavana varjita Pancha rasa, Amla rasa* does *vata shamana, Madhura vipaka* and *sheeta veerya does pitta shamana*

and *ruksha* and *kasaya* does *kapha shamana* and also having the properties of Vaya Sthapana and Vrushya[9]

- *Trikatu churna, shunti is laghu snigdha Madhura Vipaka vrushya, Maricha is pitta hara, pippali is Madhura vipaka, vrushya rasayana* thus helps in improving sperm concentration, motility and morphology

- *Kapikacchu Beeja Churna* is *Madhura, Tikta Rasa, Guru Guna, Sheeta Virya, Madhura Vipaka* and *varikaranam param*. i.e., *Vatapittahara, Balya, Brimhana, Vrishya*.[10] *Kapikacchu* contains L-dopa naturally. This L-dopa helps the brain to release Dopamine. When this dopamine is secreted in optimum levels, it increases Testosterone and GH, So it is said to be the best *Vajikarana dravya* in male infertility.

CONCLUSION

Ayurvedic drugs are key to clinical success. The application of Virechana is a broad spectrum clinical modality, and well known purification process for Pitta Dosha. Srotoshuddhi is achieved by its virtue of Shodhana, and thus it improves Seminal parameters

Application of Vajikarana Aushadha following Virechana gives better result due to better absorption and utilisation without any other complications.The above case study shows sukra dusthi(OAT Syndrome) can be effectively managed in *Ayurveda* by undergoing regular *shodhana* and vajikarana yoga.

References:

1. https://www.urologyhealth.org/urology-a-z/m/male-infertility
2. https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)32667-2/fulltext
3. Chakrapani commentary on Charaka Samhita, , Chaukambha Orientalia; Varnasi; 2011; Chikitsasthana 30/139-45Pg-640. Chaukambha Orientalia; Varnasi
4. Dalhana commentary on Sushruta Samhita, Choukambha publications; New Delhi; 2014; Sharirasthana 2/3, Pg-344
5. Gottardo F, Kliesch S; World Health Organization. Ejakulatdiagnostik : Spermiogramm nach WHO-Kriterien 2010 [Semen analysis: spermiogram according to WHO 2010 criteria]. Urologe A. 2011 Jan;50(1):101-8. German. doi: 10.1007/s00120-010-2466-6. PMID: 21161160
6. Vagbhata Astangahrdayam, with the commentaries Ayurveda Rasayana and Sarvangasundari of Acharya Arunadatta and Acharya Hemadri respectively, Published by Varanasi, Choukambha Orientalia,edited by hari sadasiva sastri paradakara, Chikitsa stana 16th chapter, sholka 2-4 pp 701
7. Vruddha Jivaka, Kashyapa Samhita revised by Vatsya with Sanskrit introduction by Pandit Hemaraja Sharma with Vidyotini Hindi commentary by Srisatyapala Bhisagacharya, Publised by Chaukhambha Sanskrita Sansthana –

Varanasi, Reprint edition – 2008, Siddhi Sthana – Trilakshana Siddhi, Line No. 10-11
8. Bulusu sitaram commentary on Bhavaprakasha, Chaukambha Orientalia; Varnasi, Haritakiyadi varga 173, pg-167-168
9. Bulusu sitaram commentary on Bhavaprakasha, Chaukambha Orientalia; Varnasi,Haritakiyadi varga 38-41, pg-135
10. Bulusu sitaram commentary on Bhavaprakasha, Chaukambha Orientalia; Varnasi, Guduchyadi varga 129-131, pg-261

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