

AYURVEDIC MANAGEMENT OF NECROZOOSPERMIA: A CASE REPORT

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ABSTRACT

Introduction: Infertility instances account for about 40% of cases when male factors are included. Male infertility due to a rare and little-studied etiology is called necrozoospermia, or 100% immotile and 0% viable spermatozoa in ejaculate. It is characterized as a condition in which the spermatozoa in ejaculated semen are dead or immobile. Lifestyle changes, occupational circumstances, numerous socioeconomic reasons, environmental and dietary causes, stress, age, congenital defects, infections, etc., can all contribute to necrozoospermia. **Presenting Complaint:** A 48 yrs. male patient was willing for child since 6 yrs. The diagnosis of necrozoospermia was confirmed following a comprehensive clinical examination and laboratory testing. The patient reported no issues with erections, orgasm, or ejaculation, and was not on any medications for systemic illnesses such as hypertension or diabetes mellitus. **Interventions:** The patient was administered *Sadya virechana*, *Chatuh Prasritika Basti* and *Uttara Basti*. The *Shamana Aushadhi* like *Ashwagandha Churna* and *Chandraprabha Vati* etc was given. At the end of *Basti Parihal Kaal* semen analysis showed marked improvement in sperm count and motility. **Conclusion:** The current research indicates that traditional medicine has a potential future in treating male infertility issues. Necrozoospermia can be effectively managed using Ayurvedic formulations without causing any negative side effects.

KEYWORD: Ayurveda, Necrozoospermia, *Shukra Kshaya*, *Uttara Basti*.

INTRODUCTION

There are reports that it affects 0.2% to 0.5% of male infertile individuals.^[1] It is described as a state in which the spermatozoa in the semen that has been ejaculated are either dead or immotile. The World Health Organization states that sperm viability in human semen samples must be more than or equal to 75%. Below this proportion, semen fertility is reduced.^[2] Usually between 20% and 30% overall motility, less than 5% progressive motility, and a viability test between 30% and 40%, showing a significant percentage of dead sperm, are the characteristics of necrozoospermia.^[3] Eight forms of *Shukra Dosh*, or pathological condition of sperm/semen, are mentioned in *Ayurveda* viz *Vataja*, *Pittaja*, *Kaphaja*, *Kunapa*, *Granthi*, *Puti*, *Puya*, and *Ksheena* are among them.^[4] In *Ayurveda*, necrozoospermia can be considered as *Vaata-Pittaja Shukra Dushiti*.^[5] The treatment for *Shukra Dosh* includes *Snehana* (oleation), *Vamana* (therapeutic emesis), *Virechana* (therapeutic purgation), *Niruha basti* (medicated enema with decoction), and *Anuvasana* (medicated enema with oil).^[6] The treatment protocol prioritizes *Virechana* and *Basti*, with *Uttara Basti* specifically stated for *Shukra Dosh* treatment. In

present study *Chatuh Prasritika Basti* and *Ashwagandha tail Uttara basti* were administered.

CASE REPORT

A 48 years male patient attended the opd of National institute of Ayurveda presented with complaint of not having children in the last 6 years of marriage and burning sensation after ejaculation. He had several semen analysis reports. Latest report of semen analysis showed 1-2 dead sperm in total sperm quantity, sperm motility nil, progressive sperm nil. The patient did not have any complain of erection, premature ejaculation. He has no history of hypertension, thyroid, diabetes and patient is not taking any medicine for that. There was no history of sexually transmitted disease. On examination testes, scrotum, penis was found normal. There was no varicosities of veins. Initial history of his wife was found normal, normal menstrual cycle and patency of fallopian tube was found normal. There was no history of any addiction of cigarettes smoking, alcohol intake etc. so as per clinical examination finding and semen analysis report diagnosis was confirmed i.e. necrozoospermia.

EXAMINATION

A clinical evaluation indicated no abnormalities (both physical and systemic). During the scrotal examination, the temperature was normal, and no scars or swelling were discovered. The position and size of the testes were normal. The epididymis was palpable and swollen, the spermatic cord was thickened, and the prostrate was normal during the examination.

Respiratory system examination

Inspection: No scar mark present on chest region. Shape and size was found normal.

Palpation: No tenderness, and no rigidity found.

Percussion: Resonant sound present.

Auscultation: Bilateral airway entry sound heard.

Cardio vascular system examination

Inspection: No scar mark present. Normal in shape and size.

Palpation: No tenderness no rigidity found

Percussion: Dull sound present

Auscultation: S1, S2 sound heard by stethoscope. No added sound like murmur etc was Heard.

Gastro intestinal tract system examination

Inspection: No scar mark present on abdominal region. Scaphoid shape abdomen was found.

Palpation: No tenderness, no rigidity found.

Percussion: Tympanic sound present

Auscultation: Normal bowel sound was present.

Nervous system examination

Inspection: No congenital deformity seen, normal spine no scoliosis, kyphosis and lordosis Was found.

Sensory nerve examination

a) **Pain:** Normal

b) **Touch:** Normal

c) **Temperature:** Normal

d) **Vibration:** Normal

e) **Pressure:** Normal

Motor nerve examination

a) **Nurtrition:** Normal (No wasting condition of muscle)

b) **Power:** 5/5 Normal

c) **Tone:** 5/5 Normal

d) **Coordination:** Normal

e) **Gait:** Normal gait

f) **Reflexes:** All superficial and deep reflexes was normal.

No primitive reflexes were present.

Cranial nerve examination: All cranial nerve are well intact.

Higher mental function: Well oriented.

Assessment criteria: Before and six months following treatment, the patient's sexual functioning parameter and semen analysis were evaluated.

Diagnosis: According to Ayurveda, the patient was diagnosed with *Paittika* Shukra Dosha on the basis of sign and symptoms of patient. He was treated for six months.

Plan of Treatment

Shodhana: *Sadya virechana* was given to the patient with *Avipattikar churna* 30gm with *Eranda tail* 20 ml in morning time and 8 *vega* are observed. In evening time patient was advised to take semi solid light diet like *daliya* and avoid walking and day sleeping.

After 1 day of rest *anuvasana basti* with *dashmoola tail* was administered for two consecutive days. Then *Chatuh Prasritika Basti* was given for next 12 days. After that next two days *Anuvasana Basti* with *Dashmoola taila* was given.

After completion of *Basti*, *Uttara basti* with *ashwagandha Taila* 20ml was given for two consecutive days and rest for one day and then next two days of *Uttara Basti* was given. In that manner we gave 8 *Uttra Basti* (4 sitting). *Panchkarma* treatment and oral medication were administered for six month.

Table no. 1: Showing *Sadya Virechana* Drugs.

S. NO.	DRUG NAME	DOSE
1	<i>Avipattikar churna</i>	30 gm
2	<i>Eranda taila</i>	20 ml (with luke warm water)

Table no. 2: Showing *Chatuh Prasritik Basti* Ingredients.

MATERIALS	QUANTITY
<i>Madhu</i>	100 ml
<i>Saindhav churna</i>	5 g
<i>Hapusha kalka</i>	10 g
<i>Go dugdha</i>	100 ml
<i>Sneha (phala ghrta)</i>	100g

Table no. 3: Showing Niruha Basti Pratyagaman Kaal.

DAY	BASTI	PRATYAGAMANA KAAL
1	A	3Hrs
2	A	4 Hrs
3	N	30 min
4	N	20min
5	N	30 min
6	N	25 min
7	N	25 min
8	N	30 min
9	N	40 min
10	N	35 min
11	N	20 min
12	N	30 min
13	N	35 min
14	N	30 min
15	A	4 hrs
16	A	3.5 hrs.

A = Anuvasana Basti with Dashmoola Taila

N = Niruha basti with Chatuprasrutik Basti.

UTTARA BASTI: Ashwagandha tail used for Uttara Basti. Uttara Basti was given by infant feeding tube. 20 ml tail was administered for single sitting.

Table no. 4: Showing Uttara Basti Pratyagaman Kaal.

DAY	BASTI	PRATYAGAMAN KAAL (Hrs.)
1	Uttara Basti	2
2	Uttara Basti	1.5
3	Gap day	-
4	Uttara Basti	2
5	Uttara Basti	3
6	Gap day	-
7	Uttara Basti	3
8	Uttara Basti	2.5
9	Gap day	-
10	Uttara Basti	2
11	Uttara Basti	3

Table no. 5: Showing Shaman Aushadi.

S.NO.	NAME OF MEDICINE	DOSE	AUSADH SEVAN KAAL	ANUPANA
1	Avipattikara churna Pittantaka churna Shankh bhasma	3gm 1 gm 500 mg	Before food (BD)	Luke warm water
2	Ojaswani churna	5gm	After food (BD)	Milk
3	Ashwagandha avelaha	10 gm	After food (BD)	Milk
4	Chandraprabha vati	500 mg	After food (BD)	Luke warm water
5	Erand bhrista haritaki	5gm	At bedtime (HS)	Luke warm water
6	Shukramatrika vati	250 mg	After food (BD)	Milk

All the above medicine was given for six months. During the treatment, no adverse drug reactions were observed, which were confirmed at follow-up visits.

RESULTS

Following the treatment, the total sperm count climbed to 4 million from nil (1-2 dead sperm), and sperm motility

improved. Before the treatment there were no progressive sperm, but after the treatment progressive sperm was increased to 30% and sluggish progressive of sperm percentage increased from nil to 40%. USG reports suggest that, there was necrozoospermia with infection initially and which is changed to oligozoospermia with infection.

Table no. 6: Showing Difference Between Before And After Treatment Result.

	Before treatment (26/08/2023)	After treatment 25/02/2024
Liquefaction time	30 min.	60 min.
Sperm count	Nil (1-2 dead sperm)	4 million
Active progressive	Nil	30%
Sluggish progressive	Nil	40%
Non progressive	Nil	30%
Immotile	Nil	55%
RBC	Nil	Nil
Epithelial cells	Nil	Nil
Pus cell	1-2/hpf	4-6/hpf
Semen fructose	Positive	Positive
Volume	2ml	2 ml
pH	Alkaline	Alkaline
Abnormal forms	Nil	45%

DISCUSSION

Necrozoospermia is the medical name for immobile sperm. The sperm may be alive but not moving, or it may be dead. Necrozoospermia is a possible cause of male infertility. Although there is no satisfactory management in contemporary science, panchkarma treatment with oral medications have demonstrated substantial improvement in sperm count in isolated case reports. Ayurveda includes a specific branch for aphrodisiac drugs (*Vajikarana*). The notion of *Vajikarana*, as described in the Ayurvedic literature, is a special category of therapy techniques that strengthen the reproductive system and sexual functioning.

There are three sorts of aphrodisiac therapy.^[7]

Shukra Karaka - Sperm producing or increasing sperm count

Shukra Rechaka - Those which aid in the ejaculation of seminal fluid.

Shukra Karaka and Rechaka - Are medicines that serve both of the aforementioned functions.

Acharya Shushrut mentioned in *Sharir Sthan* about treatment plan for *Shukra Dosha*. *Acharya* mentioned treatment plan for *shukra dosa viz Snehana, Vamana, Virechana, Niruha Basti, Anuvasana Basti*, and specially *Uttara Basti* for treatment for *Shukra Dosha*.

Sadya Virechana with *Erand tail* and *Avipattikar Churna* was chosen for pacifying *Vata* which is the main cause of this disease.

Acharya Charaka mentioned *Chatuh Prasritika Basti* in *Siddhi Sthan*. *Acharya* explained the aphrodisiac action of this *Basti*.

Table no. 7: Showing Mode Of Action Of Chatuh Prasrutik Basti Ingredients.

Drug	RASA	GUNA	VIRYA	VIPAKA	KARMA
<i>Hapusha</i>	<i>Katu, Tikta, Ushna,</i>	<i>Guru, Rooksha, Tikshana</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kapha Vata Shamana, Dipana, Anulomana</i>
<i>Madhu</i>	<i>Madhua, Kashaya</i>	<i>Guru, Rooksha, Sookshma</i>	<i>Sheeta.</i>	<i>Katu</i>	<i>Vrushyam, Srotovishodanam, Saukumaryakaram</i>
<i>Saindhva lavana</i>	<i>Lavana, Madhur</i>	<i>Snigdha, Laghu, Tikshna</i>	<i>Sheeta</i>	<i>Madhura</i>	<i>Tridosaharam, Vrushyam, Agnideepanam</i>
<i>Go-Dugdha</i>	<i>Madhura</i>	<i>Snigdha, Pichila, Guru, Mridu</i>	<i>Sheeta</i>	<i>Madhura</i>	<i>Vatapittara shaamaka, Balyam, Shukrakaram, Jaranashanam, Varnya, Brimhana</i>
<i>Phala ghrita</i>					<i>Tridosha balance, Aayushya, Paushtik Medhya, Pusamvana Karma</i>

Ashwagandha Taila enhances sperm production in the seminal vesicles region. it also pacifies *Vata dosha*. It is widely recognized that high amounts of reactive oxygen species (ROS) in semen cause oxidative damage to sperm and are related with aberrant sperm parameters,

which lead to infertility. *Ashwagandha* has been shown to inhibit the production of ROS in infertile males.^[8]

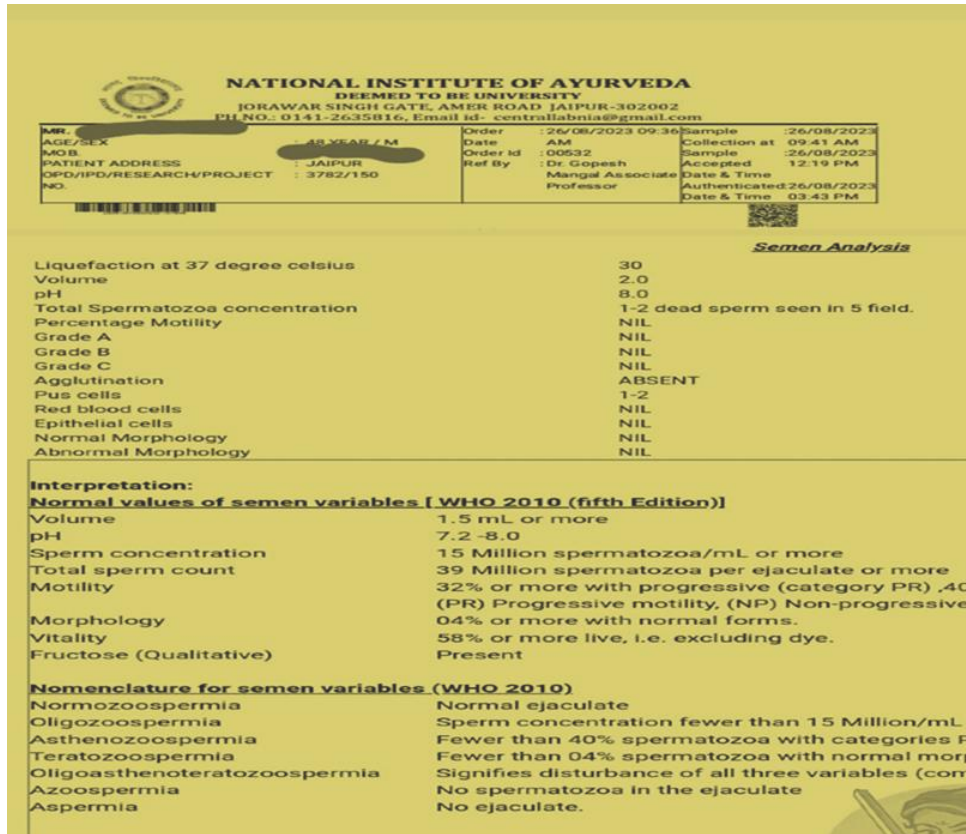
Chandraprabha Vati act as anti-inflammatory in genitourinary tract. It relieves infection and functions as a spermatopoietic agent. *chandraprabha vati* contains

Shilajit which is a very good aphrodisiac drug.^[9] According to the *Bhavaprakasha* and *Charaka Samhita*, *Shilajatu* is a major *Vrishya* (aphrodisiac) medicine.^[10]

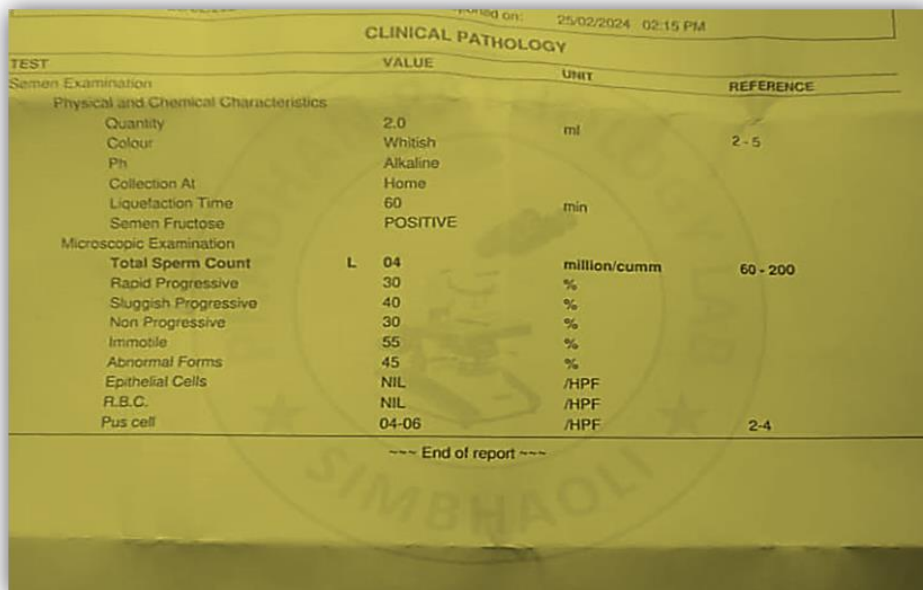
CONCLUSION

It is therefore evident that the therapeutic method based on *Ayurvedic* principles can provide encouraging

outcomes in the management of *Shukra Dosha* (necrozoospermia), not just in improving sexual functioning indicators but also enhancing the quality and quantity of semen. Necrozoospermia can be efficiently managed by *Panchkarma* treatment along with oral medication that have no harmful side effects.



Before treatment (26/08/2023)



AFTER TRETMENT (25/02/2024)

Declaration of patient consent: The authors certify that they got all necessary patient permission papers. In the form, the patient (s) has/have provided consent for his/her/their photos and other clinical information to be published in the journal. The patients understand that their names and initials will not be published, and that every attempt will be taken to conceal their identity; however, anonymity cannot be guaranteed.

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