

## AYURVEDIC MANAGEMENT OF OLIGOASTHENOTERATOZOOSPERMIA - A CASE REPORT

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### ABSTRACT

More than 40% of infertility cases are due to male causes and one of the causes of male infertility is oligoasthenoteratozoospermia. A 34-year-old man was visited at our clinic with primary infertility. He presented with complaints of being unable to conceive his partner in the last 7 years of his married life. The diagnosis of oligoasthenoteratozoospermia (*shukra dosha*) was established after a detailed clinical examination and laboratory testing. According to *ayurvedic* treatment guidelines, the patient was given *koshtha-shuddhi* (purgation) with *abhyadi modakam*. After undergoing the necessary purification processes, the patient was administered *shaman ausadhi* such as *kapikacchu*, *makardhwaja vati*, *sakravallabh ras*, and *veerya*

*shodhak churna* for 5 months, along with *uttar basti* with *ksheerbala tailam* at the interval of 10 days. Semen analysis showed a significant improvement in sperm count, motility, and morphology after 5 months. The current results, and the successful treatment of oligoasthenoteratozoospermia using *Ayurvedic* formulations with minimal side effects, demonstrates the traditional medicine's promising potential in male infertility diseases.

**KEYWORDS:** Oligoasthenoteratozoospermia, Male Infertility, *Uttar Basti*.

## INTRODUCTION

Infertility is a condition in which a man or woman is unable to conceive after a period of 12 months or more of frequent unprotected sexual activity.<sup>[1]</sup> Primary infertility refers to the inability to conceive at all, whereas secondary infertility refers to the inability to conceive after a previous successful conception.<sup>[2]</sup> Around 15% of couples worldwide experience infertility.<sup>[3]</sup> Infertility affects approximately 10% to 14% of the Indian population, as per the Indian Society of Assisted Reproduction<sup>[4]</sup>, and of this, 40-50% is due to male factor.<sup>[5]</sup> Male infertility can be described by low sperm production, abnormal sperm function, or obstruction that obstructs the delivery of sperm. However many treatments like IVF, IUI, Hormonal therapy, etc. are there but surety is not there. That is the reason to explore *ayurveda* treatments to treat this type of case. In azoospermia, a man's ejaculation contains no sperm. Oligospermia is a condition in which the sperm count is lower than normal (15 million sperm/ml). In asthenospermia condition sperm motility is less than 40% or less than 32% with increasing motility. Teratospermia is a condition in which sperm with abnormal morphology is present in a given sample.<sup>[6]</sup>

*Ayurveda* also explained infertility, its cause, and treatment in detail under *vajikarna*. In *ayurveda*, various correlated terms like *napunsaka*, *klabiya*, and *shanda* are mentioned which are indicative of impotency, and other conditions like *sukra dosha*, *shukra dosha*, *klabiya*, and *ksheen retas* can be related to infertility. *Vajikarna* is one of the branches of *ayurveda* that is related to the conservation and development of sexual strength of a person and conception of the healthy issue along with the management of imperfect semen. *Ksheen shukra* is enumerated under *shukra dusti*. *Acharaya Shushruta* defined *ksheen shukra* as *vata-pitta*'s predominant condition and its treatment is *upachaya*.<sup>[7]</sup>

*Uttar basti* is one of the *panchakarma* that can execute many tasks such as *shodhana*, *samana*, and *Brighana*. It efficiently overcomes the aggravated *vata*. Because of its *shodhana* activity, it helps to alleviate the *bahu dosavastha*.<sup>[8]</sup>

### Male infertility

While studying male infertility the following points need to be seen

- Volume of semen
- Sperm count
- Motility

- Structural defect of sperms
- Any obstruction in the genital tract

## CASE REPORT

A 34 years old patient with normal BMI reported a complaint of being unable to conceive his partner for 7 years in his marital life. After taking history he was advised for Semen Analysis. He failed to conceive in spite of unprotected intercourse even during the 12<sup>th</sup> to 18<sup>th</sup> day of menstruation for the last 7 years. The patient hasn't any addiction. On inquiry, the patient was having spicy and salty food mostly. The patient hadn't any past medical history of hydrocele, mumps, tuberculosis, or any other long-term disease. He didn't have any history of surgical intervention like vasoe epididymostomy, vasectomy reconstruction, or herniorrhaphy. Before starting treatment semen examination report showed a very low sperm count of 9.60 million/ml with 0% progressive motility and 0% normal morphology (100% abnormal morphology).

## General Examination

On examination of the patient, pallor was absent, the tongue was clear and vegetarian in diet. The patient's appetite was good and he usually prefers a salty and spicy diet. Bowel habit is regular. The patient had disturbed sleep.

## Investigation

Semen Analysis.

## Treatment Plan

Firstly, *dipan pachan* with *chitrakadi vati* 500mg twice a day with lukewarm water before meal was done for 3 days before starting *snehapan*. *Snehapan* was done with *phal ghritam* for 5 days and after this *samyakasnigdha lakshana* was achieved. After 3 days, *sarvang abhyang swedan* was done with *ksheerbala tailam*. The next day *virechan* was done with *abhyadi modakam*. The patient had 15 *vegas* (*madhyamshudhi*). Then for 5 days, *samsarjan karma* was advised.

*Shaman ausadhi* like *kapikacchu*, *makardhwaja vati*, *sakravallabh ras*, and *veerya shodhak churna* was given for 5 months along with *uttar basti* with *ksheerbala tailam* at the interval of 10 days.

**Pathya-Apathya**

The patient asked to avoid curd, lemon, pickle, *ati lavan ras sevan*, *ati katu ras sevan*, fried and spicy things, any addiction, stale food, cold drink, bread, oily items, tea, coffee, etc. Also advised to avoid *ati maithun* (excessive coital act), *amaithun* (ignorance of coital act), *shukra vega dharan* (suppression of urge of ejaculation of semen), *atisahas* (excessive exercise), suppression of natural urges, excessive fasting, stress work, etc.

The patient was advised to take *shalidhanya*, *godhuma*, *mamsa*, *ksheer*, *ghrita*, *kharjura*, and *lasuna* & to follow a proper diet, *nidra*, *vega*, *vyayam*.

**RESULT**

	<b>BEFORE TREATMENT</b>	<b>AFTER TREATMENT</b>
Date	1/9/2021	27/2/2022
Duration of abstinence	4 days	4 days
Liquefaction time	30 Min	30 Min
Volume	3 ml	3 ml
pH	7.5	7.5
Total sperm concentration	9million	22million
% Motility	20%	55%
Grade A (progressive)	0%	35%
Grade B (non-progressive)	20%	20%
Vitality	34%	64%
Normal morphology	0%	18%
Abnormal morphology	100%	82%

**Probable mode of action of Uttar Basti<sup>[8]</sup>**

One of the *panchakarma uttar basti* (a type of *basti*), is capable of executing a variety of tasks such as *shodhana*, *samana*, and *bringhana*. The *vata dosha* is primarily involved in the *sukra dusti*. *Taila* (oil) is the best medicine of *vata dosha* for *samana*. The *ksheerbala* tail is used in this case which is having *bringhana karma*. *apana vayu*, a kind of *vata*, is in charge of the lower half of the body. This *vayu*, or *vata*, is responsible for regulating and controlling all processes in the lower body. The colon, pelvis, urinary bladder, and lower limbs are the control centers. If the *apana vayu* is functioning properly and has not become vitiated, all events involving the above-mentioned organs occur smoothly and spontaneously. However, if the *vata* becomes vitiated or moves in the opposite direction, i.e., upward (*apana vata* tends to move downward, expelling and excreting things being its primary function), or if it becomes functionally obstructed by other subtypes of *vayu*, *pitta*, or *kapha* (*Avarana*), or if it becomes weak in function, the functions related to the above-mentioned organs and parts of

the body will be disrupted. As a result, medicines delivered via the urethral route help in the balance of primary- *apana vata* and its associated sub-*doshas*, resulting in the cure or remission of the aforementioned illnesses. The *sneha basti*, which is administered in *uttar basti*, will be beneficial. They have a nutritional role and will improve blood flow, nerve conduction, and immunity.

## DISCUSSION

*Garbhotpadana* is a vital function of *shukradhatu* as per *ayurveda classics*. *Shukra* is *saumya* i.e., *Jalamahabhut pradhana*, here pathogeny includes low count along with decreased motility and morphology. *Pitta* contains *agneyguna* which is reverse to *saumya guna* of *shukra* which results in low sperm count.<sup>[9]</sup> Vitiated *vata* is involved in the pathology of low motility as Motility i.e., *chalatva* is due to *vataguna*.<sup>[10]</sup> *Acharya kashyapa* has mentioned the role of *virechana karma* (purgation) in the purification of the *beeja* (sperm), as it increases *beeja* (sperm) effectiveness in achieving fertilization.<sup>[11]</sup> *Virechana* shows the *agni vardhan* and *sroto vishudhi* effect which results in proper *dhatu parinama*. Properties like *madhuraras*, *balya*, *rasayan*, *brimhaniya*, *vajeekarna*, etc. lead to the process of spermatogenesis. *Kapikacchu* (*Mucuna pruriens*) is of *madhura rasa*, *snigdha guna*, and *madhur vipaka* that helps in increasing sperm count. *Mucuna pruriens* promote L-Dopa production, which further transforms into Dopamine. This dopamine stimulates the Pituitary to secrete FSH and LH. Secretion of the Testosterone may occur with the help of LH which improves the level of Testosterone leading to improvement in spermatogenesis. *Rasa aushadhi* plays an important role in *vrishya / vajikarana chikitsa*. One such effective preparation is *makardhwaja vati*. *Charaka* says “*nakra retaso vrishyanam*” i.e., *nakra retasa* is the best for fertility.<sup>[12]</sup> *Nakra* refers to *makar* or crocodile; *Dhwaja* refers to *veerya / shukra*, thus the preparation which gives the power of fertility like *makar* is *makardhwaja vati*.<sup>[13]</sup> It is an important metalo-mineral formulation and is an effective *kupipakva* preparation (a specific type of pharmaceutical practice in which medicines are prepared by gradually increasing heating patterns using a vertical electric muffle furnace). *Suddha swarna* (purified gold), *suddha parada* (purified mercury), and *suddha gandhaka* (purified sulphur) in the ratio of 1:8:24, as well as herbal juices such *kumari swarasa* (*Aloe Vera barbadensis* juice) and *rakta karpas pushpa swarasa* (Juice of *Gossypium herbaceum*), are the main ingredients.<sup>[14]</sup> *Makardhwaja vati* is having *rasayan* effect. *Sakravallabh ras* contains *suddha swarna* (purified gold), *suddha parada* (purified mercury), *suddha gandhaka* (purified sulphur), *suddha rajat* (purified silver), *suddha lauhbhasma* (purified iron *bhasma*), *abhra*

*bhasma* (*bhasma* of silica), *hemamakshik bhasma* (*bhasma* of copper pyrite), *tugakshri*, *shoditvijyabeeja*. Its ingredients act as *vrushya* (aphrodisiac). *Veerya shodhak churna* contains *babool phali*, *babool kopal*, and *babool gond* which improves sperm parameters.

## CONCLUSION

It concludes that the treatment approach in this type of case can produce positive results in the management of *shukra dosha* (oligoasthenoteratospermia). In this study, we followed the *Ayurvedic* principles and found significant improvement in semen parameters such as sperm count, motility, and morphology. Thus, this type of encouraging results make hope for other patients suffering from this type of issue and builds confidence among *Ayurvedic* physicians in handling male infertility.

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