

# Management of Oligoasthenoteratozoospermia Syndrome with *Vajikarana Chikitsa* Incorporating Shweta Musali and Munja Tak Followed by Eranda Taila *Nitya Virechana* : A Case Report

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## ABSTRACT

**Background:** Oligoasthenoteratozoospermia (OAT) syndrome is a condition characterized by low sperm count, motility, and morphology, which contribute to male factor infertility and are mainly caused by inappropriate lifestyle changes. The disease has been described in detail in Ayurvedic literature with individual treatment modalities as *Ksheena Shukra*.

**Case presentation:** The present paper reports a case of an infertile couple in which a 30-year-old male was diagnosed with OAT syndrome (Sperm Count 8 million/ml, progressive motility 32%, normal morphology 2%) and advised to undergo assisted reproductive technology (ART) as it was a very severe case. The patient visited an Ayurveda fertility centre and received initial counselling along with *Shodhana Chikitsa*, which included *Snehapana* (oil consumption) with *Shatavari Ghrita* and *Virechana* (purgation) with Eranda Taila followed by *Vajikarana Aushadhi Prayoga* with *Nitya Virechana* for 4 months. The treatment involved administering *Shamana Aushadhi* in the form of *Shweta Musali Churna* (5 g twice daily with milk), *Munja Moola Churna* (3 g twice daily with honey), and Eranda Taila (5 ml daily before bed).

**Outcome:** After 4 months, the semen analysis parameters changed from severe OAT to normozoospermia (54 million/ml of sperm, progressive motility 80%, normal morphology 30%). The partner who conceived during the third month of treatment gave birth to a healthy boy, and the delivery was vaginal and without complications. No adverse events were observed.

**Conclusion:** The present case illustrates that *Vajikarana* drugs along with *Nitya Virechana* successfully reversed severe OAT syndrome and achieved natural conception where ART was recommended for natural conception.

**Keywords:** *Ksheena Shukra*, Oligoasthenoteratozoospermia, Male infertility, *Vajikarana Chikitsa*, *Shweta Musali*, *Nitya Virechana* ; Case report

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## 1. Introduction

Infertility is a major health problem worldwide and reportedly affects one in six couples [1]. The male factor is responsible for approximately 50% of infertility cases, including gametogenic defects [2]. One of these abnormalities is the Oligoasthenoteratozoospermia (OAT) syndrome. The pathological condition is confirmed by semen analysis, which reveals a count of less than 15 million/ml (oligozoospermia), less than 32% of sperm showing progressive movement (asthenozoospermia), or less than 4% of sperm with normal morphology (teratozoospermia) [3]. The main causes of spermatogenic deformities are improper lifestyle or genetic defects. Mild OAT syndrome is treated with intrauterine insemination (IUI), and in vitro fertilization (IVF) or

intracytoplasmic sperm injection (ICSI) are used for moderate to severe OAT syndrome in western medicine. In both techniques, assisted reproductive technology (ART) is employed to achieve pregnancy [4].

The terms seminal defect (*Retodushti*) and spermatogenic defect (*Shukra Dushti*) are detailed in Ayurveda, and an entire branch of Ayurveda called *Vajikarana Tantra* elaborates on the enhancement and treatment of the reproductive system. Based on the *Dushti of VataPitta Dosha*, OAT syndrome is correlated with one of the different manifestations of *Ksheena Shukra* [5]. *Vajikarana tantra* and *Shukrajanana Gana Dravya* are categories of medicines that are used to correct *Shukra Dushti*, restore reproductive physiology and make it fruitful of reproductive organs [6]. This is a case of OAT

syndrome where couple was advised for IVF and they opted for an Ayurveda fertility centre and the male was treated on the basis of *Vajikarana Tantra*, with the use of *Shweta Musali*, *Munja Tak* followed by *Eranda Taila Nitya Virechana*.

## 2. Patient Information

A 30-year-old man presented with his wife (27 years) to an Ayurveda center with complaints of failure to conceive. Their marriage was non-consanguineous for 4 years, and they had started trying for a child in the last 3 years. They did not have a problem with sexual activity, had good knowledge of when they were ovulating and conceiving, and had no history of contraceptive use. The couple was assessed, and all female factors were normal.

The patient was a male employed in the IT industry with a stressful job (work requires a high number of electronic devices), consumed 40% alcohol for 8

## 4. Timeline

**Table 1: Timeline of patient care**

Date	Event
10.01.2024	The couple visited the Ayurveda center, and the male partner was diagnosed with <i>Ksheena Shukra</i> (OAT syndrome) by <i>Retopariksha</i> . counselling and treatment plans were explained.
15.01.2024	<i>DeepanaPachana</i> was initiated -with <i>Agnitundi Vati</i> 1 BD.
18.01.2024	<i>Snehapana</i> with <i>Shatavari Ghrita</i> initiated.
22.01.2024	Classical <i>Virechana Karma</i> with <i>Eranda Taila</i> 50 ml, followed by 5-day <i>Samsarjana krama</i> .
28.01.2024	<i>Shamana Aushadhi</i> prescribed: <i>Shweta Musali Churna</i> 5 gm BD with milk, <i>Munja Moola Churna</i> 3 gm BD with honey, and <i>Nitya Virechana</i> with <i>Eranda Taila</i> 5 ml at bedtime with lukewarm milk daily for 4 months.
25.03.2024	<i>Retopariksha</i> repeated at 2 months.
20.04.2024	<i>Retopariksha</i> was repeated at 3 months.
20.06.2024	<i>Retopariksha</i> was repeated at 4 months.
12.04.2024	Partner conceived during 3 <sup>rd</sup> month of medication (LMP 12.04.2024).
18.01.2025	The partner delivered a baby boy via vaginal delivery.

## 5. Diagnostic Assessment

Semen analysis was performed based on the procedure mentioned in the WHO guidelines [3], and the interpretation was performed based on the Ayurveda guidelines [7]. Microscopic analysis

years at a rate of 180 ml a day, and smoked 10-12 cigarettes a day till 2 years ago (now occasional). He regularly consumed junk food. He was diagnosed with OAT syndrome 1 month before his visit and advised to undergo IVF due to its severity. He knew that alcohol and tobacco could impact fertility, making him nervous about approaching the Ayurveda center.

## 3. Clinical Findings

The patient was conscious, oriented, and well responsive, his vitals were stable, and he had no complaints associated with it. He was well built (BMI 23.5 kg/m<sup>2</sup>) and had well-developed secondary sexual characteristics. Genital examination of the penis was normal, examination of scrotum and testicles was normal, but palpation of left testicle was normal showing a mild 'bag of worms' appearance, which is a Grade I varicocele.

revealed a spermatozoal count (8 million/ml), progressive motility (32%), abnormal sperm (2%) normal forms and pus cells (8–10/hpf) were found in microscopic analysis. Macroscopic analysis revealed a high pH (8.8), presence of foam

(*Phenilata*), and a yellowish-white color. These findings suggested *VataPitta Dushti*; and *Retopariksha* was reported as *Ksheena Shukra Dushti* (OAT syndrome).

#### 6. Therapeutic Intervention

The patient was counselled to avoid causative factors (*Nidana Parivarjana*), complete avoidance of alcohol and tobacco, *VataPitta* pacifying diet, regular sleep, yoga, and stress management.

- **Deepana-Pachana (Days 1–3):** *Agnitundi Vati* 1 BD.

- **Snehapana (Days 4–7):** *Shatavari Ghrita* 30 ml - 60 ml - 90 ml - 120 ml until *Samyak Snigdha Lakshana* observed.
- **Vishrama Kala (Days 8–10):** *Sarvanga abhyanga* with *Mahanarayana Taila* followed by *Bashpa Sweda*.
- **Virechana (Day 11):** Eranda Taila 50 ml with warm milk. The patient attained 14 *vega* of *Madhyama Shuddhi*.
- **Samsarjana Krama (5 days):** Gradual dietary regimen.
- **Shamana Aushadhi (4 months):** As shown in Table 2.

**Table 2: Shamana Aushadhi regimen for 4 months**

Drug	Dose and Anupana	Duration
<i>Shweta Musali (Chlorophytum borivilianum) Churna</i>	5 gm twice daily with warm milk	4 months
<i>Munja Moola (Saccharum munja) Churna</i>	3 gm twice daily with honey	4 months
<i>Eranda Taila (Nitya Virechana)</i>	5 ml at bedtime with lukewarm milk daily	4 months

#### 7. Follow-up and Outcomes

Semen analysis was repeated at 2, 3, and 4 months of treatment. Macroscopic parameters (color and

pH) improved, microscopic parameters (count, motility, and morphology) progressively improved, and pus cells decreased (Table 3).

**Table 3: Semen analysis at various time points**

Parameters	Pre-treatment (12.01.2024)	2 months (25.03.2024)	3 months (20.04.2024)	4 months (20.06.2024)
<b>Abstinence</b>	3 days	4 days	3 days	3 days
<b>Liquefaction time</b>	40 min	20 min	15 min	10 min
<b>Colour</b>	Yellowish white	Greyish white	Greyish white	Greyish white
<b>pH</b>	8.8	7.8	7.5	7.3
<b>Volume</b>	2 ml	2.5 ml	2.8 ml	3.2 ml
<b>Sperm count</b>	8 million/ml	32 million/ml	42 million/ml	54 million/ml
<b>Progressive motility (PR)</b>	32%	58%	68%	80%
<b>Total motility</b>	45%	72%	82%	90%
<b>Normal morphology</b>	2%	15%	22%	30%
<b>Pus cells</b>	8–10/hpf	3–4/hpf	2–3/hpf	0–1/hpf
<b>Phenilata</b>	Present	Present	Absent	Absent

The couple had sex in the natural manner and the mother was pregnant in the third month of treatment (LMP 12.04.2024). Her antenatal period was uneventful and she had a healthy baby (3.2 kg) on 18.01.2025. No adverse events were reported. At baseline and post-treatment, liver and kidney function tests were normal.

#### 8. Discussion

The major cause of OAT syndrome is an unhealthy lifestyle. Toxins from alcohol and tobacco have been shown to raise scrotal temperature, disrupt sperm production, lower testosterone production, and cause sperm mutations, all of which contribute to a reduction in sperm count, motility, and

morphological abnormalities [2]. Regular consumption of fast food affects *VataPitta Dosha* due to its *Katu, Teekshna, Ruksha*, and *Ushna Guna*, especially on *Shukravaha Srotas*, which causes *Ksheena Shukra Dushti* [8]. Therefore, treatment based on *Nidana Parivarjana* and *Vajikarana Chikitsa (Shukra Prasadana)* was performed [9]. *Shodhana Karma* was carried out as a preparation. *Shatavari Ghrita* was selected for *Snehapana* as it contains *Shatavari (Madhura Rasa, Sheeta Virya)*, which is *VataPitta Shamana* and *Gokshura, Vidarikanda* and *Yashtimadhu* which are *Vipaka, Madhura Rasa* and have properties of *Rasayana* and *Vrushya*.

*Virechana* using Eranda Taila is recommended for the treatment of *Vata Pitta* and is beneficial for improving *Beeja Karmukata* [10]. The unique *Vataanulomana* and *Pitta-Shamaka* actions of Eranda Taila are presented [11]. The classical literature provides a description of *Nitya Virechana* using low dose Eranda Taila (5 ml daily at bedtime) for 4 months for chronic *Vata* disorders [12]. Here, Eranda Taila was administered at a low dose for 24 h, which produced continuous mild *Vata Anulomana* and *Srotoshuddhi* and enhanced the bioavailability of *Shamana* drugs.

*Shweta Musali* (*Chlorophytum borivilianum*) is *Madhura Rasa*, *Sheeta Virya*, *Vrushya*, and *Poshana* of *Rasadi Dhatu* [13]. It has been demonstrated to enhance sperm production and motility through its saponins and antioxidative effects [14]. It also contains steroidal saponins (*borivilianosides*), which promote sperm production by supporting Sertoli cells, and stigmasterol, which may play a role in testosterone synthesis [15].

According to *Charaka Samhita*, *Munja* (*Saccharum munja*) is a part of *Madhyama Panchamoola* and has *Madhura Rasa*, *Sheeta Virya*, and *Vrushya* properties [6]. It is traditionally used for *Vrushya* and *Balya* actions and is useful in providing the necessary nutrients to enhance spermatogenesis. When combined with *Shweta Musali*, it has a synergistic effect, improving the overall nourishment of *Shukra Dhatu*.

Here, the progressive improvement seen at 2, 3, and 4 months demonstrates the time course of *Vajikarana* therapy. Sperm concentration (32 million/ml), motility (58%), and morphology (15%) had already surpassed the WHO values at 2 months. The conception took place in third month and further improvement in normozoospermia at 4 months (count 54 million/ml, motility 80%, morphology 30%). There was complete normalization of all semen parameters within 4 months, which proves the effectiveness of this complete protocol in the complete resolution of Grade I varicocele.

### 9. Conclusion

The literature on Ayurveda describes *Shukra Dushti* and its specific treatment in detail. If proper treatment is administered at the right stage, better results are obtained. The ART treatment has been recommended for this case of OAT and successful treatment was done with Ayurveda principles alone with *Shweta Musali*, *Munja* and *Nitya Virechana* with *Eranda Taila* which converted from *Ksheena Shukra* to *Prashastha Shukra* in 4 months. After a safe gestation period, the partner gave birth to a healthy male child.

### Informed Consent

Written informed consent was obtained from the patient for the documentation and publication of this case report.

### Patient Perspective

The couple revealed that they had been advised to undergo IVF but wanted to conceive naturally. They were a bit apprehensive about Ayurveda but were quite delighted with the improvement in their fertility and natural conception through Ayurveda. The husband said that he felt more vigorous and that the problems of gout and occasional hyperacidity disappeared. He was able to conveniently take *Nitya Virechana* with castor oil every day, and he felt lighter and more energetic throughout the 4-month treatment.

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