

Clinical Reversal of Oligoasthenoteratozoospermia through Ayurvedic Management: A Case Report

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ABSTRACT:

Oligoasthenoteratozoospermia (OAT) is a major cause of male infertility characterised by reduced sperm concentration, motility, and abnormal morphology. In Ayurveda, it is correlated with *Shukra Kshaya* and *Shukra Dushti*, often resulting from impaired *Dhatu Poshana* and *Agnimandya*- a 30-year-old male presented with primary infertility of one year's duration. Baseline semen analysis revealed hypospermia with OAT. The female partner had no identifiable abnormalities. A structured 3-month Ayurvedic protocol incorporating *Shodhana*, *Vrishya*, *Rasayana*, and *Shukra Prasadaka* therapies, along with lifestyle and dietary modifications, was administered. Post-treatment semen analysis showed significant improvement in sperm concentration (16-34 million/mL), progressive motility (3-15% to 43%), and normal morphology (1% to 39%). Ayurvedic management targeting *Shukra Dhatu* restoration and *Agni* correction may significantly improve seminal parameters in OAT. Further controlled studies are required.

KEYWORDS: Male Infertility, Oligoasthenoteratozoospermia, *Rasayana*, *Shukra Dushti*, *Shukra Kshaya*, *Vrishya*.

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Graphical Abstract



INTRODUCTION:

Infertility affects approximately 15–20% of couples globally, with male factors contributing to nearly 40–50% of cases. [1] In India, the prevalence of male infertility is 23%. [2] Oligoasthenoteratozoospermia (OAT), involving reduced sperm count, motility, and morphology, is one of the most common etiologies. Semen analysis remains the cornerstone of diagnosis. Spermatogenesis requires approximately 72–90 days and is highly

sensitive to metabolic, hormonal, and environmental factors.[3] Conditions such as varicocele, oxidative stress, and lifestyle disturbances are known contributors.[4]

From an Ayurvedic perspective, infertility is primarily attributed to vitiation of *Shukra Dhatu*. Proper formation of *Shukra* depends upon sequential *Dhatu Poshana*, optimal *Agni*, and unobstructed *Srotas*. Conditions such as *Shukra Kshaya* and *Shukra Dushti* arise due to *Agnimandya*, *Rakta*

Dushti, and *Vata Prakopa*. Ayurveda emphasises *Shodhana*, *Shamana*, *Vrishya*, and *Rasayana* therapies to restore reproductive health. [5] Several contemporary studies have evaluated various therapies for male infertility and Oligoasthenoteratozoospermia; however, most treatments mainly target isolated seminal parameters or hormonal imbalance with inconsistent long-term outcomes. Conventional therapies often show variable results with limited improvement in sperm motility and morphology.[6] Previous studies have reported beneficial effects of *Vrishya* and *Rasayana* therapies on sperm count and semen quality. Still, many were limited by small sample sizes, lack of comprehensive treatment protocols, short followup durations, or the absence of integrative assessment of seminal parameters.[7] Furthermore, very few studies have explored a combined Ayurvedic approach incorporating *Shodhana*, *Shamana*, *Vrishya*, *Rasayana*, dietary regulation, and lifestyle modification in a single structured protocol for the management of Oligoasthenoteratozoospermia.[8] Hence, the present study was undertaken to evaluate the therapeutic potential of a comprehensive Ayurvedic management protocol targeting *Shukra Dhatu* restoration, correction of *Agnimandya*, and improvement of overall seminal quality in a clinically diagnosed case of OAT.

CASE REPORT:

A 30-year-old male patient presented to the outpatient department with the chief complaint of inability to achieve conception despite one year of regular,

unprotected marital life, and was diagnosed with a case of primary infertility. The couple had been cohabiting with normal sexual activity, and there was no history suggestive of coital dysfunction such as erectile dysfunction, premature ejaculation, or loss of libido. The patient's spouse had undergone a comprehensive gynaecological evaluation, which revealed no abnormalities, including regular menstrual cycles, normal ovulatory function, and no structural (e.g., tubal blockage) or hormonal pathology, thereby indicating a likely male factor involvement in infertility.

The patient had no significant past medical history of chronic systemic illnesses such as diabetes mellitus, hypertension, tuberculosis, mumps orchitis, sexually transmitted infections, or any endocrine disorders that could adversely affect spermatogenesis. There was also no history of previous surgeries, trauma to the genital region, or exposure to gonadotoxic agents such as radiation, chemicals, or prolonged heat. He was not on any long-term medications.

On personal history evaluation, the patient reported a moderately stressful lifestyle due to occupational demands, along with irregular dietary habits characterised by inconsistent meal timing and suboptimal nutritional balance. Sleep patterns were also disturbed, with reduced duration and poor quality, which could contribute to systemic metabolic imbalance. There was no history of addictions such as smoking, alcohol consumption, or substance abuse.

General physical examination revealed a well-oriented individual with stable vital signs and an average body build and nutrition. No pallor, icterus, cyanosis, lymphadenopathy, or oedema was noted. Systemic examination, including cardiovascular, respiratory, and abdominal systems, was within normal limits.

Local genital examination showed normally developed external genitalia with bilaterally descended testes of normal size, shape, and consistency. There was no evidence of varicocele, hydrocele, epididymal thickening, or tenderness. The spermatic cord structures were normal on palpation, and there were no signs of local infection or anatomical abnormality. Secondary sexual characteristics were appropriately developed, indicating normal androgenic status.

Based on the clinical presentation and preliminary findings, a provisional diagnosis of male factor infertility was considered, which was later substantiated by semen analysis as shown in Table 2, suggestive of oligoasthenoteratozoospermia.

Diagnosis

- **Modern:**
Oligoasthenoteratozoospermia (OAT)
- **Ayurvedic:** *Shukra Kshaya* associated with *Shukra Dushti*

THERAPEUTIC INTERVENTION:

The patient was managed with a structured Ayurvedic treatment protocol for a total duration of 90 days as given in Table 1, designed on the principles of *Agnideepana*, *Pachana*, *Shodhana*, *Shukra Shodhana*, *Shukra*

Prasadana, and *Vrishya-Rasayana Chikitsa*. Initially, emphasis was placed on correcting metabolic impairment through *Agnideepana* and *Pachana*, followed by administration of *Vrishya* and *Rasayana* drugs aimed at enhancing the quality and quantity of *Shukra Dhātu*.

During the 3-month therapeutic period, the patient was administered a combination of *Shamana* and *Vrishya* formulations. *Ashwagandha Churna* was prescribed in a dose of 5 g twice daily with 150 ml of lukewarm milk as *Anupana* after meals. *Kapikacchu Churna* was given at a dose of 3 g twice daily with milk.

In addition, a *Ghrita*-based preparation, *Phala Ghrita*, was administered at a dose of 10 ml twice daily before meals with lukewarm milk for 60 days to facilitate *Dhatu Poshana* and enhance the nourishment of reproductive tissues.^[9]

Supportive non-pharmacological measures were also incorporated. The patient was advised to practice *Sarvangasana* daily, starting with 5 minutes and gradually increasing to 10 minutes. Local *Sheetopachara* was advised in the form of application of a cold water-soaked cotton pad over the scrotal region for 10 minutes daily at night to maintain optimal testicular temperature, which is essential for normal spermatogenesis. Additionally, stress-reduction techniques, including relaxation exercises and proper sleep hygiene, were emphasised.

Dietary and lifestyle modifications (*Pathya-Apathya*) were strictly advised. The patient was instructed to consume *Ksheera* (milk), *Masha* (black gram), *Mudga* (green gram), soaked dates,

almonds, sweet potato, jaggery, and rice, along with a nutritionally balanced diet rich in proteins and healthy fats. Adequate sleep of 7–8 hours per day and mental relaxation were emphasised. The patient was advised to avoid *Apathya*, such as excessive intake of salt, pickles, curd, *Kulattha* (Horse gram), *Sarshapa* (mustard), garlic, and coffee, as well as alcohol, smoking, and exposure to excessive heat (e.g., hot baths, tight clothing). Overexertion, irregular sleep patterns, and stress-inducing activities were also restricted throughout the treatment period. This comprehensive intervention was continued consistently for 90 days, corresponding to one complete spermatogenic cycle, to achieve optimal therapeutic outcomes. The patient initially presented with severe oligoasthenoteratozoospermia (OAT), characterised by markedly

reduced sperm concentration, poor motility, and abnormal morphology, indicating significant impairment in spermatogenesis. Following a structured 90-day Ayurvedic intervention, all major semen parameters demonstrated both clinically and statistically significant improvement, including sperm count, progressive motility, and normal morphology. The treatment duration corresponds to the physiological spermatogenic cycle of approximately 72–90 days, thereby strengthening the causal relationship between the intervention and the observed outcomes. From an Ayurvedic perspective, these improvements indicate the effective correction of underlying *Shukra Dushti* and the restoration of the functional integrity of *Shukra Dhatu*, reflecting a successful enhancement of reproductive capacity.

Table 1: Therapeutic Intervention Timeline:

Component	Intervention / Drug	Dose	Anupana (Vehicle)	Frequency	Duration	Purpose
Agnideepana & Pachana	(Initial metabolic correction – if required)	-	-	-	3–5 days (if applied)	betterment of <i>Agni</i> , better <i>Dhatu Poshana</i>
Vrishya Therapy	<i>Ashwagandha Churna</i>	5 g	150 ml <i>Ksheera</i>	Twice daily after meals	90 days	<i>Shukra Janana</i> , <i>Balya</i> , stress reduction
	<i>Kapikacchu Churna</i>	3 g	Milk	Twice daily after meals	90 days	Improves sperm count & motility
Ghrita Therapy	<i>Phala Ghrita</i>	10 ml	Lukewarm milk	Twice daily before meals	60 days	<i>Dhatu Poshana</i> ,

Yoga Therapy	<i>Sarvangasana</i>	5–10 minutes	-	Once daily (morning)	90 days	Improves testicular circulation
Local Therapy	<i>Sheetopachara</i> (cold water pad over testes)	-	-	Once daily (night)	90 days	Maintains optimal scrotal temp.

Table-2: Outcome

Parameter	Before Treatment	After Treatment (90 Days)	Normal Reference Range (WHO)	Inference
Volume	1.2 ml	1.5 ml	≥ 1.5 ml	Improved to the normal range
Sperm Concentration	16 million/ml	34 million/ml	≥ 15 million/ml	Significant improvement
Total Sperm Count	19 million	51 million	≥ 39 million/ejaculate	Markedly improved
Progressive Motility	3–15%	43%	≥ 32%	Improved from severely low to normal
Normal Morphology	1%	39%	≥ 4%	Remarkable improvement

Table 3: Mode of Action of Ayurvedic Intervention

Intervention Component	Ayurvedic Action	Modern Correlation	Clinical Effect
<i>Agnideepana & Pachana</i>	Improves <i>Agni</i> , clears <i>Ama</i>	Enhances metabolism & nutrient absorption	Better <i>Dhatu Poshana</i>
<i>Vrishya Dravya</i> (<i>Ashwagandha</i> , <i>Kapikacchu</i>)	<i>Shukra Janana</i> , <i>Balya</i>	↑ Testosterone improves spermatogenesis	↑ Sperm count & motility
<i>Shukra Shodhana</i>	Purifies <i>Shukra</i>	Reduces oxidative stress and infection	Improves semen quality
<i>Ghrita Preparations</i>	<i>Dhatu Poshana</i> , <i>Brimhana</i>	Lipid-mediated hormone support	Enhances sperm production
<i>Sarvangasana</i>	Improves <i>Srotas</i> circulation	Improves testicular blood flow	Supports spermatogenesis
<i>Sheetopachara</i>	Reduces <i>Ushna</i>	Maintains optimal scrotal temperature	Improves sperm viability

Table 4: Findings from Previous Studies

Study	Interventions	Duration	Key Findings
Clinical trial on <i>Ashwagandha</i> [18]	675 mg/day extract	90 days	↑ Sperm count (167%), ↑ motility (57%), ↑ volume
Systematic review	<i>Ashwagandha</i>	Variable	↓ Oxidative stress, ↑ hormonal balance

DISCUSSION:

The present case demonstrated marked improvement in semen parameters following a structured Ayurvedic intervention, which can be explained through both classical Ayurvedic principles and contemporary biomedical mechanisms. Oligoasthenoteratozoospermia (OAT) is primarily associated with impaired spermatogenesis, oxidative stress, hormonal imbalance, and metabolic dysfunction. From an Ayurvedic perspective, it corresponds to *Shukra Kshaya* and *Shukra Dushti*, resulting from *Agnimandya*, improper *Dhatu Poshana*, and vitiation of *Vata* and *Pitta Dosha*. The therapeutic approach adopted in this case, comprising *Agnideepana*, *Shukra Shodhana*, *Shukra Prasadana*, *Vrishya*, and *Rasayana* therapies, addresses the pathology at multiple levels, including digestion, tissue nourishment, and *Shukrauttapatti*.

The drugs used in this protocol, such as *Ashwagandha* roots and *Kapikacchu* seeds, are well-known *Shukrajanaka* and *Vrishya Dravya*.^[10,11] These act by improving *Dhatu Poshana*, enhancing *Shukrauttapatti*, and correcting hormonal imbalance as shown in table no.3. Modern studies support these effects; for instance, administration of *Ashwagandha* for 90 days has shown a drastic increase in sperm count, a 57% increase in motility, and significant improvement in semen volume, along with normalisation of reproductive hormones as shown in table no 4. Additionally, systematic reviews suggest that *Ashwagandha* improves semen

quality by reducing oxidative stress and enhancing enzymatic activity in seminal plasma, thereby protecting sperm from free radical damage.^[12,13] The use of *Ksheera* as *Anupana* was throughout the treatment period due to its *Brimhana* and *Shukrala* properties.^[14]

Furthermore, Ayurvedic management also targets *Rakta Dushti* and local heat, which are known contributors to impaired spermatogenesis, particularly in conditions such as varicocele. Supportive measures such as *Sarvangasana* help improve testicular blood circulation, while *Sheetopachara* reduces local scrotal temperature, which is critical since spermatogenic enzymes function optimally at lower temperatures.^[15,16] Lifestyle changes, stress reduction, and proper sleep further contribute to reduced cortisol levels and improved hypothalamic-pituitary-gonadal (HPG) axis function, thereby enhancing testosterone production and sperm quality.^[17]

The improvement observed in this case is consistent with both Ayurvedic theory and modern scientific evidence. The multimodal intervention not only enhanced *Shukra Dhatu* quantitatively but also qualitatively by improving sperm count, motility, and morphology. The combined effects of metabolic correction, antioxidant activity, hormonal regulation, and improved testicular environment likely contributed to the successful reversal of OAT in this patient.

CONCLUSION:

This case demonstrates that Ayurvedic management focusing on *Shukra Dhatu* nourishment, *Agni correction*, and *Rasayana* therapy can significantly improve semen parameters in OAT. Ayurveda offers a holistic, non-invasive, and potentially effective approach for male infertility.

Limitations and Future Scope:

This case report is limited by its single-case design, absence of hormonal and oxidative stress assessments, and lack of long-term fertility outcomes such as conception data. Therefore, the findings cannot be generalised without further evidence. Future research should focus on large-scale randomised controlled trials, standardisation of *Vrishya* protocols, and integration with assisted reproductive techniques (ART) to enhance clinical applicability and outcomes.

Consent of the patient:

Written informed consent was obtained from the patient before publication of this data, without disclosing the patient's identity.

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REFERENCES:

1. Karavani G, Kattan MS, et al. Idiopathic secondary azoospermia occurrence in men with oligospermia over time. Journal of assisted reproduction and genetics. 2024; 41(8): 2163–2171
2. Zargar AH, Wani AI, et al. Epidemiologic and etiologic aspects of primary infertility in the Kashmir region of India. Fertil Steril 1997; 68(6):37-43
3. Fukunaga H, Yokoya A, Prise KM. A Brief Overview of Radiation-Induced Effects on Spermatogenesis and Oncofertility. Cancers (Basel). 2022 ;14(3):805..
4. Finelli R, Leisegang K, Kandil H, Agarwal A. Oxidative Stress: A Comprehensive Review of Biochemical, Molecular, and Genetic Aspects in the Pathogenesis and Management of Varicocele. World J Mens Health. 2022 ;40(1):87-103. Guleria A, et al; Shukra Dhatu: The Essence of Vitality in Ayurvedic Thought. International Journal of Ayurveda and Pharma Research. 2025 13(8):92-98.

5. Chauhan AS, Vijayan R. Ayurvedic management of Oligoasthenoteratozoospermia (OAT) syndrome: A Case Report. Kerala Journal of Ayurveda. 2023 Dec 31;2(4).
6. Sreedhar A. Ayurvedic management of varicocele associated with oligoasthenozoospermia and erectile dysfunction: A Case Report. Kerala Journal of Ayurveda. 2026 ;5(1).44-49
7. Dhurve SA, Ghatge MP, et al, Ayurvedic View Ksheena Shukra (Oligozoospermia)-Male Infertility and its Management. Chelonian Conservation and Biology. 2023, 18(2). 629-329.
8. Kumar A. Comparative Study on Plain Ghrita and Panchathikta Ghrita as Shodhananga Snehana with Special Reference to Eka-Kushta (Psoriasis Vulgaris) (Doctoral dissertation, Rajiv Gandhi University of Health Sciences (India)) 2015.
9. Mishra A, Tiwari K. A comprehensive drug review on Kapikacchu (*mucuna pruriens*). World Journal of Pharmaceutical Research. 2021 Oct 26;10(14):628-642.
10. Rathod NM, Kuchewar V, Pardhekar A. A Comparative Analysis of Vidarikand Vati (Pueraria Tuberosa DC) and Ashwagandha Vati (Withania Somnifera Linn.) for Karshya (Underweight): A Randomised Controlled Trial Research Protocol. Journal of Clinical & Diagnostic Research. 2025 Dec 1;19(12).
11. Sengupta P, Agarwal A, et al Role of Withania somnifera (Ashwagandha) in the management of male infertility. Reproductive biomedicine online. 2018 Mar 1;36(3):311-326.
12. Kanwar A, Virmani M, et al. Effects of Ashwagandha-derived silver nanoparticles on pre-and post-thaw semen quality in bulls. Frontiers in Veterinary Science. 2026;12:1709707, 1-14.
13. Kaushal B. A Clinical Study on Mashaashwagandhadi Churana in the Management of Ksheena Shukra Vis-à-Vis Oligospermia (Doctoral dissertation, Rajiv Gandhi University of Health Sciences (India))2018.
14. Thero VD. Yoga and Meditation for Male Infertility Improvement. Journal of Men's Health and Reports. :2-6.
15. Ginni S. An Experimental Study to Evaluate the Effect of Kshaariya Jala (Alkaline Water) on Shukra with Special Reference to Spermatogenesis (Doctoral dissertation, Rajiv Gandhi University of Health Sciences (India))2018.
16. Shpakov AO, Ryzhov JR, Bakhtyukov AA, Derkach KV. The regulation of the male Hypothalamic-Pituitary-Gonadal axis and testosterone production by. Advances in testosterone action; Intech Open publication, London2018 Nov 21.page-25
17. Vollmer G, Brendler T. Evaluation of Potential Hormonal Activities of Ashwagandha (Withania somnifera). Phytotherapy Research. 2025; 0:1–18.