

REVERSAL OF AZOOSPERMIA AND RESTORATION OF SECONDARY SEXUAL
CHARACTERISTICS WITH AYURVEDIC TREATMENT: A CASE REPORT

Dr. Aarati Patil*, Dr. Dipali Sarage, Dr. Kshitija Berde, Dr. Aishwarya Deshpande

India.



*Corresponding Author: Dr. Aarati Patil

India.

DOI: <https://doi.org/10.5281/zenodo.22267812>

How to cite this Article: Dr. Aarati Patil*, Dr Dipali Sarage, Dr Kshitija Berde, Dr Aishwarya Deshpande. (2026). Reversal of Azospermia and Restoration of Secondary Sexual Characteristics With Ayurvedic Treatment: A Case Report. European Journal of Pharmaceutical and Medical Research, 13(9), 304–307.

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Article Received on 06/08/2026

Article Revised on 26/08/2026

Article Published on 01/09/2026

ABSTRACT

Male infertility contributes to nearly half of all infertility cases worldwide, with non-obstructive azoospermia (NOA) representing one of the most severe forms due to impaired spermatogenesis. Conventional treatment options for NOA remain limited and often include hormonal therapy, assisted reproductive techniques, or surgical sperm retrieval, with variable success rates depending on the underlying etiology. Ayurveda approaches male infertility as a disorder involving impairment of *Shukra Dhātu*, imbalance of *Vata dosha*, and diminished reproductive vitality. Management focuses on improving reproductive tissue nourishment, enhancing spermatogenesis, restoring sexual function, and optimizing overall reproductive health through treatment interventions.^[1,2] This case study presents a 37-year-old male with non-obstructive azoospermia, bilateral small testes (<4 cm), poorly developed secondary sexual characteristics, absence of spontaneous morning erections, erectile dysfunction, and premature ejaculation. The patient underwent three months of Ayurvedic treatment aimed at improving testicular function and male reproductive health. Follow-up semen analysis demonstrated improvement from azoospermia to a sperm concentration of 16 million/mL. Clinical assessment also revealed the development of secondary sexual characteristics, restoration of spontaneous morning erections, and significant improvement in erectile function and premature ejaculation. These findings suggest that Ayurvedic management has the potential to improve spermatogenesis, androgenic function, and overall reproductive health in selected patients with severe male factor infertility.

INTRODUCTION

Male infertility contributes to approximately 40–50% of all infertility cases worldwide and affects nearly 7% of the male population. Among the various etiologies, non-obstructive azoospermia (NOA), characterized by the complete absence of spermatozoa in the ejaculate due to impaired spermatogenesis, represents one of the most severe forms of male infertility. Patients with NOA often present with testicular dysfunction, hormonal abnormalities, reduced testicular volume, impaired sexual function, and poor reproductive outcomes. Despite advances in assisted reproductive technologies, the management of NOA remains challenging, with limited therapeutic options capable of restoring endogenous spermatogenesis.^[1,2]

Conventional management of NOA depends on the underlying etiology and may include hormonal therapy

in selected patients, microsurgical testicular sperm extraction (micro-TESE), and intracytoplasmic sperm injection (ICSI). However, these approaches are invasive, expensive, and do not consistently restore normal sperm production or reproductive function. Furthermore, many patients continue to experience impaired sexual health and reduced quality of life despite treatment.^[3]

In Ayurveda, male infertility can be understood as a disorder involving impairment of *Shukra Dhātu*, imbalance of *Vata dosha*, diminished *Shukra Vridhhi*, and reduced reproductive vitality. Management focuses on improving tissue nourishment (*Dhātu Poshana*), restoring the normal function of the reproductive system, enhancing spermatogenesis, strengthening sexual function, and improving overall reproductive health through herbal formulations, dietary modifications, and lifestyle interventions.^[4]

The present case describes a 37-year-old man with non-obstructive azoospermia associated with bilateral small testes, poorly developed secondary sexual characteristics, erectile dysfunction, premature ejaculation, and absence of spontaneous morning erections. Following three months of Ayurvedic management, the patient demonstrated marked improvement in semen parameters, with sperm concentration increasing from azoospermia to 16 million/mL, accompanied by restoration of secondary sexual characteristics and significant improvement in sexual function. This case highlights the potential role of Ayurvedic management in supporting spermatogenesis and improving reproductive health in selected patients with severe male factor infertility.

3. CASE PRESENTATION

Patient Information

A 37-year-old married male presented to the clinic with a history of primary infertility. The couple had been attempting conception without success. The patient sought Ayurvedic management after being diagnosed with non-obstructive azoospermia on semen analysis.

Family History

No significant family history of infertility, genetic disorders, or endocrine abnormalities was reported.

Past Medical and Surgical History

There was no history of previous testicular surgery, trauma, chemotherapy, radiation exposure, mumps orchitis, or chronic systemic illness.

General Physical Examination

On examination, both testes were markedly small in size, measuring less than 4 cm bilaterally. The patient exhibited poorly developed secondary sexual characteristics, including sparse facial hair with absent beard and moustache growth. He also reported absence of spontaneous morning erections.

Sexual History

The patient complained of erectile dysfunction and premature ejaculation, resulting in impaired sexual performance. He denied loss of libido.

Diagnostic Assessment

Baseline semen analysis demonstrated azoospermia, confirming severe male factor infertility. Clinical examination revealed bilateral small testes (<4 cm) associated with underdeveloped secondary sexual characteristics, suggestive of impaired testicular function.

Treatment Intervention

The patient underwent a three-month Ayurvedic treatment protocol comprising proprietary herbal formulations aimed at improving testicular function, supporting spermatogenesis, enhancing androgenic activity, and optimizing overall male reproductive health.

Table 1: Ayurvedic Medicines, Ingredients, and Dosage-Male.

Medicine given	Ingredients/Contents	Dosage
Tablet Beehj (500mg)	Shweta Musali, Shuddha Kaucha, Gokshur, Ashwagandha, Guduchi, Vriddhadaru, Shatavari, Bala, Amalaki, Varahi Kanda, Kokilaksha, Vidarikanda, Jivanti, Akkalgaru, Jayphal, Swarnamakshik bhasma, Swarna Bang, Shuddha Shilajit, Salab Mishri Churna	2 pills after breakfast and 2 pills after dinner
Kavachbeehj (300 mg)	Kaunchbeehj	2 pills after breakfast and 2 pills after dinner
Makar (250 mg)	Makardhwaja Rasa Powder, Jatiphala, Karpura, Marich, Javitri	1 tablet at night

Follow-up and Outcome

Following three months of treatment, repeat semen analysis demonstrated a remarkable improvement in sperm concentration from **azoospermia to 16 million sperm/mL**. Clinical examination also revealed the development of secondary sexual characteristics, including improved facial hair growth. In addition, the patient reported restoration of spontaneous morning erections, significant improvement in erectile function, and resolution of premature ejaculation. Overall sexual function and reproductive health improved substantially following treatment.

DISCUSSION

Male infertility contributes to nearly half of all infertility cases globally, with azoospermia accounting for approximately 10–15% of infertile men. Azoospermia is associated with severely impaired fertility and may be accompanied by testicular dysfunction, reduced testicular volume, androgen deficiency, impaired sexual function, and poor quality of life. Patients presenting with bilateral small testes and poorly developed secondary sexual characteristics often exhibit compromised testicular function, making restoration of spermatogenesis particularly challenging.^[1,2]

Conventional management of azoospermia depends on the underlying etiology and includes hormonal therapy in carefully selected patients, surgical sperm retrieval techniques such as micro-testicular sperm extraction (micro-TESE), and assisted reproductive technologies including intracytoplasmic sperm injection (ICSI). While these approaches have expanded reproductive options for affected couples, they are invasive, expensive, and do not consistently restore endogenous sperm production or improve overall reproductive health. Furthermore, patients with associated sexual dysfunction may continue to experience impaired quality of life despite fertility-focused interventions.^[3]

The present case involved a 37-year-old man with azoospermia, bilateral small testes (<4 cm), poorly developed secondary sexual characteristics, absence of spontaneous morning erections, erectile dysfunction, and premature ejaculation. Following three months of Ayurvedic management, repeat semen analysis demonstrated improvement from azoospermia to a sperm concentration of 16 million/mL. In addition to the marked improvement in semen parameters, the patient developed secondary sexual characteristics, experienced restoration of spontaneous morning erections, and reported significant improvement in erectile dysfunction and premature ejaculation, suggesting overall improvement in reproductive and sexual health.

According to Ayurvedic principles, male infertility can be understood as a disorder involving impairment of *Shukra Dhatu*, imbalance of *Vata dosha*, diminished *Shukra Bala*, and inadequate nourishment of the reproductive tissues. The therapeutic objective is to restore normal reproductive function by promoting *Dhatu Poshana*, enhancing *Shukra Janana*, improving tissue metabolism (Agni), and strengthening the reproductive system.^[4]

The treatment protocol consisted of proprietary formulations including *Tablet Beehj*, *Kavachbeejh*, and *Makar*, which were prescribed to support spermatogenesis, improve reproductive tissue nourishment, enhance sexual function, and promote overall vitality. The formulation contains herbs traditionally described as *Vrishya (aphrodisiac)*, *Balya (strength-promoting)*, and *Rasayana (rejuvenative)*, including *Ashwagandha*, *Gokshur*, *Shweta Musali*, *Kaunchbeej*, *Shatavari*, *Vidarikanda*, *Bala*, and *Amalaki*. These herbs have traditionally been used to support semen quality, reproductive tissue nourishment, physical strength, and sexual performance. From an Ayurvedic perspective, these formulations help nourish *Shukra Dhatu*, improve reproductive vitality, and facilitate normal reproductive function.^[5,6]

The restoration of measurable sperm concentration together with improvements in secondary sexual characteristics and sexual function observed in this patient suggests a broader improvement in reproductive

physiology rather than an isolated change in semen parameters alone. Although the precise biological mechanisms require further investigation, the observed clinical improvements indicate the potential role of Ayurvedic management in supporting spermatogenesis and male reproductive health.

This case highlights the potential of an Ayurvedic approach as a supportive management strategy for severe male factor infertility. Nevertheless, conclusions from a single case should be interpreted with caution. Well-designed prospective studies with larger sample sizes, standardized outcome measures, and long-term follow-up are required to further evaluate the efficacy and mechanisms of Ayurvedic interventions in azoospermia and male infertility.

CONCLUSION

This case demonstrates the successful management of severe male factor infertility through three months of Ayurvedic treatment comprising *Beehj*, *Kavachbeejh*, and *Makar*, together with dietary and lifestyle modifications. Treatment was associated with improvement in semen parameters from azoospermia to a sperm concentration of 16 million/mL, accompanied by the development of secondary sexual characteristics, restoration of spontaneous morning erections, and improvement in erectile dysfunction and premature ejaculation. These findings suggest that Ayurvedic management supports spermatogenesis, improves sexual function, and enhances overall male reproductive health. Further well-designed clinical studies are warranted to validate these observations and establish the role of Ayurvedic interventions in the management of azoospermia and male infertility.

CONFLICT OF INTEREST

The authors declare that there are no conflicts of interest related to this study.

REFERENCES

1. Tharakan T, Luo R, Jayasena CN, Minhas S. Non-obstructive azoospermia: current and future perspectives. *Fac Rev* [Internet], 2021; 10: 7. Available from: <http://dx.doi.org/10.12703/r/10-7>
2. Ashwin, Garg M, Nagarajan K. Ayurveda and male fertility: therapeutic strategies for improving reproductive potential. *Advances in Traditional Medicine* [Internet], 2026; Available from: <http://dx.doi.org/10.1007/s13596-026-00923-4>
3. Achermann APP, Pereira TA, Esteves SC. Microdissection testicular sperm extraction (micro-TESE) in men with infertility due to nonobstructive azoospermia: summary of current literature. *Int Urol Nephrol* [Internet], 2021; 53(11): 2193–210. Available from: <http://dx.doi.org/10.1007/s11255-021-02979-4>
4. Rathi I, Mavi A, Shannawaz M, Saeed S, Yadav A, Hasan S. Effectiveness of Ayurveda intervention in the management of infertility: A systematic review.

Cureus [Internet], 2024; 16(4): e57730. Available from:

https://assets.cureus.com/uploads/review_article/pdf/241382/20240506-4963-1fs1qhm.pdf

5. Vijnyan part I li Dr DAP, Deshpande DR. SUBHASH RANADE |Proficient Publishing House
6. Ayurvedicmedicinalplants.in. [cited 2025 May 26]. Available from: <https://ayurvedicmedicinalplants.in/sites/default/files/books/93aa6-145-rasa-shastra.pdf>