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Role of Ayurveda in Treating Azoospermia: A Case Report

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Abstract

In Ayurveda, a closely related condition to azoospermia is described as Ksheena Shukra or Shukra Kshaya, which arises due to vitiation of Pitta and Kapha Doshas, leading to impaired Shukra Dhatu formation and function. Azoospermia, defined as the complete absence of sperm in ejaculate, accounts for nearly 10–15% of male infertility cases and presents considerable challenges in conventional management, particularly in non-obstructive or idiopathic forms. This case study documents the Ayurvedic management of a 27-year-old male with pre-diagnosed azoospermia (sperm count 0 million/mL). The therapeutic intervention was based on Nidana Parivarjana, followed by Shodhana procedures including Deepana-Pachana, Abhyantara Snehana with Dadimadi and Kalyanaka Ghrita, Bahya Snehana, Bashpa Swedana, and Virechana with Icchabhedi Rasa achieving Madhyama Shuddhi, along with Shamana therapy comprising Vanga Bhasma, Kapikacchu Churna, Makardhwaja and allied formulations administered with Bruhatchagladi Ghrita Anupana, Ashwagandhadi Lehyam, and Shukrajanana Vati for an initial duration of one month. Following Virechana and Shamana therapy, a notable improvement was observed in sperm count, which increased from 0 to 1 million/mL, with treatment continuing for further enhancement and no adverse effects reported. The findings highlight the potential role of Ayurvedic Shodhana, Shamana, and Rasayana principles in the management of azoospermia, suggesting a promising approach in conditions where contemporary treatment options remain limited and warranting further validation through larger clinical studies.

Keywords: Azoospermia, Ksheena Shukra, Virechana Karma, Shukra Kshaya, Ayurveda, Male Infertility

1. Introduction

Infertility affects approximately 15% of couples worldwide, with male factors contributing significantly in about half of these cases.[1,2] Azoospermia, defined as the complete absence of spermatozoa in the ejaculate (confirmed on at least two properly collected and centrifuged semen samples), represents one of the most severe forms of male infertility.[3] It affects nearly 1% of the general male population and accounts for 10–15% of all infertile men. [3,4,5] Azoospermia is classified into obstructive (post-

testicular blockage) and non-obstructive (impaired spermatogenesis) types, with non-obstructive azoospermia (NOA) being more common and often idiopathic or multifactorial. [3,6]

In conventional medicine, management of NOA is challenging and frequently relies on invasive procedures such as testicular sperm extraction (micro-TESE) combined with intracytoplasmic sperm injection (ICSI). While sperm retrieval rates with micro-TESE can reach 35–60% in experienced centers, overall live birth rates per ICSI cycle remain modest (around 10–37% depending on case series), and the approach is costly, invasive, and not always successful.[7,8] In Ayurveda, azoospermia correlates with Ksheena Shukra (diminished semen) or Shukra Kshaya (depletion of reproductive tissue), resulting from vitiated Doshas (primarily Pitta and Kapha) obstructing Shukravaha Srotas and impairing Dhatu Poshana.[9,10] Shukra Dhatu, being Saumya (cooling, nourishing) in nature and dominated by Jala Mahabhuta, is antagonized by Pitta's Ushna-Tikshna qualities and Kapha's Guru-Abhishyandi properties, leading to Avarodhajanya Shukra Kshaya. [9,10]

This case report illustrates successful Ayurvedic management using Shodhana (purificatory) and Shamana (palliative) therapies.

2. Case Presentation-

A 27-year-old male presented to the OPD with reports confirming pre-diagnosed azoospermia (sperm count 0 million/mL).

3. Patient History-

The patient worked for approximately 8 hours per day in a restaurant kitchen, resulting in chronic exposure to high temperatures, and followed a diet predominantly consisting of spicy foods with excess salt, non-vegetarian meals consumed two to three times per week, and overall Kaphakara Aahar. His lifestyle history revealed occasional alcohol consumption and engagement in rigorous physical exercise. There was no reported history of systemic illness, genital trauma, surgical interventions, mumps, varicocele, or any congenital or acquired anatomical abnormalities.

General Examination & Diagnostic Assessement: Vital parameters (BP, PR, RR, temperature) were within normal limits. Systemic and genital examination revealed no abnormalities.

Samprapti (Pathogenesis):

Nidana Sevana → Vitiation of Pitta (Aagneya, Ushna, Tikshna – opposite to Shukra's Saumya nature) and Kapha (Guru, Snigdha, Abhishyandi – obstructing Srotas) → Avarodhajanya Shukra Kshaya.

4. Intervention:

The principle of the treatment was Nidana Parivarjana (avoidance of causative factors), Shodhana Chikitsa, Shamana Chikitsa, and Rasayana approach.

Shodhana Chikitsa:

Therapeutic Phase	Duration	Medication / Procedure	Dose & Mode of Administration
Deepana–Pachana	3 days	Vara Guggul	250 mg, 2 tablets with water
		Vara + Vidanga + Musta + Kutaki Churna	1 g each, administered with honey
		Arogyavardhini Vati	250 mg, 2 tablets twice daily (BD)
		Aragwadha Kapila Vati	500 mg, 2 tablets twice daily (BD)

Abhyantara Snehana	5 days	Dadimadi Ghrita + Kalyanaka Ghrita	Started at 25 mL, gradually increased up to 150 mL
Bahya Snehana & Swedana	7 days	Tila Taila Abhyanga followed by Bashpa Swedana	External oleation and sudation
Virechana Karma	Single day	Icchabhedi Rasa	250 mg, 2 tablets
Outcome of Virechana	—	Shuddhi Lakshana	Madhyama Shuddhi achieved (17 Vegas + 3 Chhardi Vegas)
Post-procedure Care	5 days	Samsarjana Krama	Gradual dietary regimen post-Virechana

Shamana Chikitsa (1 month):

Drug	**Dose**	**Anupana**	**Time**
Vanga Bhasma + Kapikacchu Churna + Makardhwaja + Padmaka + Dhamasa + Durva Kalpa + Bala (mixture)	As combined churna/Bhasma	Bruhatchagladi Ghrita	Early morning & evening (Rasayana Kala)
Ashwagandhadi Lehyam	2 tsf	With water	At night
Shukrajanana Vati	2 tablets	With water	Before food
Bruhatchagladi Ghrita	10 mL	With water	Early morning & evening

5. Follow ups & Outcome:

After Virechana and initial Shamana therapy, repeat semen analysis done after 1 month showed marked improvement: sperm count increased from 0 to 1 million/mL. The patient reported no adverse effects. Treatment continues for further optimization of count, motility, and morphology.

6. Discussion:

Azoospermia, characterized by the complete absence of spermatozoa in the ejaculate, represents one of the most severe forms of male infertility. In conventional medicine, it is broadly classified into obstructive and non-obstructive types. Non-obstructive azoospermia (NOA), which appears to be the case here given the absence of anatomical abnormalities or surgical history, often results from impaired spermatogenesis due to genetic, environmental, hormonal, or idiopathic factors.[11] Modern management options remain limited, frequently relying on testicular sperm extraction (TESE) followed by intracytoplasmic sperm injection (ICSI), with variable success rates and significant invasiveness.[12] This case highlights a promising Ayurvedic approach for managing idiopathic/non-obstructive azoospermia, where classical principles offer a holistic, non-invasive alternative with potential for restoring spermatogenesis. In Ayurveda, semen (Shukra Dhatu) is described as the ultimate essence of all seven Dhatus (tissues), possessing Saumya (cooling, nourishing, lunar-like) qualities dominated by Jala Mahabhuta (water element).[13] Charaka Samhita (Chikitsa Sthana 1/1, Shloka 9-12) and Sushruta Samhita (Sharira Sthana 2/4) emphasize that Shukra is formed through sequential nourishment of preceding Dhatus via Dhatvagni (tissue metabolism).[14] Any disruption in this process—particularly vitiation of Doshas—leads to Ksheena Shukra (diminished semen) or Shukra Kshaya (depletion of semen), manifesting as reduced volume, absent or low sperm count, poor motility, and abnormal

morphology.[14] The pathogenesis (Samprapti) in this patient aligns closely with classical descriptions. The primary Nidanas (causative factors) included chronic heat exposure from working in a restaurant kitchen for 8 hours daily, excessive consumption of spicy and salty food (Ushna-Tikshna and Ksharavaha qualities), occasional alcohol intake, non-vegetarian diet, rigorous exercise, and Kaphakara Aahara (heavy, slimy foods that increase Kapha). These factors predominantly aggravated Pitta (with its Aagneya, Ushna, and Tikshna properties) and Kapha (with Guru, Snigdha, and Abhishyandi qualities).[15] Pitta's heating qualities directly oppose the Saumya nature of Shukra, leading to Shukra Dahana (burning/destruction of semen) and impaired spermatogenesis, while Kapha's obstructive qualities cause Srotorodha (blockage of Shukravaha Srotas), preventing proper nourishment of Shukra Dhatu. The combined effect results in Avarodhajanya Shukra Kshaya, manifesting as azoospermia.[16] The treatment strategy followed the classical triad of Nidana Parivarjana (removal of causative factors), Shodhana (purification), and Shamana (palliation) with Rasayana (rejuvenation). Virechana (therapeutic purgation) served as the cornerstone of Shodhana. Charaka Samhita (Siddhi Sthana 12/15-9) indicates Virechana as the primary treatment for Pitta-dominant disorders and Shukraashraya Rogas (diseases affecting semen).[17] In Ksheena Shukra, the primary vitiated Doshas are Vata and Pitta. By expelling aggravated Pitta through the lower gastrointestinal tract, Virechana achieves clearance of Srotorodha (channel obstruction), enhancement of Dhatvagni and Dhatu Parinamana , and improved bioavailability of subsequent Shamana and Rasayana drugs by opening microchannels (Srotas).[18] In this case, Icchabhedi Rasa produced Madhyama Shuddhi (17 Vegas + 3 Chhardi Vegas), considered optimal for Pitta elimination without excessive depletion. Post-Shodhana, Shamana therapy focused on Vrushya (aphrodisiac), Brihana (nourishing), and Rasayana (rejuvenative) drugs to regenerate Shukra Dhatu. Kapikacchu (Mucuna pruriens) is described as Vajikaramaparam (supreme aphrodisiac) in classical texts, possessing Vrushya, Brihana, and Guru properties; modern studies suggest its L-DOPA content supports dopamine-mediated hormonal regulation, enhancing spermatogenesis and testosterone levels.[19] Bruhatchagladi Ghrita is specifically indicated for Nashtashukra (loss of semen) and as a Rasayana, with its ghee base providing Snigdha and Brihana qualities to counteract Pitta's heat and nourish Shukra Dhatu.[20] Vanga Bhasma is a classical Vrushya and Balya preparation known for improving reproductive tissue vitality and addressing Shukra Kshaya,[21] while Makardhwaja is a potent Rasayana with Vrushya, Brihana, Balya, and Dhatuvivardhana effects that rejuvenates Ojas and supports Dhatu Poshana.[22] The combination, administered with Bruhatchagladi Ghrita as Anupana during Rasayana Kala, optimized absorption and sustained rejuvenation.

7. Limitations and Future Directions-

As a single case report, results are preliminary and not generalizable. The improvement is modest (1 million/mL), and treatment is ongoing. Long-term follow-up is needed to assess sustained fertility. Future research should include larger cohorts, randomized controlled trials, and integration with semen analysis parameters (motility, morphology) and hormonal profiles (FSH, LH, testosterone).

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