

Management of Oligospermia (*Kshina Shukra*) by Ayurvedic Therapy: A Case Report

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ABSTRACT

Male infertility is a widespread issue, often resulting from low sperm count (oligospermia) and poor sperm motility (asthenospermia). According to the World Health Organisation (WHO), a sperm concentration of less than 15 million sperm per milliliter of semen is classified as oligospermia. Oligospermia can be associated with *Shukravaha Srotas Dushti* in Ayurveda. Globally, infertility impacts approximately 8-12% of couples. *Shukra Dhatu* primarily refers to semen and its role in determining reproductive potential. A decline in *Shukra Dhatu* leading to *Shukra Kshaya* can be correlated with oligospermia. A 30-year-old male patient presented with general debility and fatigue for one year. He was married and, along with his wife, had been trying to conceive for the past four years without success. He was advised to undergo a semen analysis, which confirmed a diagnosis of oligospermia. The treatment approach emphasised *Aamapachana* (toxin elimination) and rejuvenation of *Shukra Dhatu* through *Shodhan* (bio-purification) and *Shaman* (curative) treatment to address the root cause of infertility. The outcome demonstrated notable improvements in both sperm count and motility, indicating the effectiveness of Ayurvedic therapies in managing oligospermia (*Shukra Kshaya*). This report underscores the potential of Ayurvedic interventions as a holistic approach to treating oligospermia and improving male fertility.

Keywords: *Aamapachana*, Male infertility, *Shukravaha srotasdushti*, Sperm count, Sperm motility

CASE REPORT

A 30-year-old male patient visited the Outpatient Department (OPD) with complaints of general debility and fatigue for the past year. According to the patient, he was asymptomatic before this period. Gradually, he began experiencing general debility and fatigue. He had a history of smoking for 10 years but ceased smoking three months ago, although he occasionally continued. The patient had been married for four years but had not conceived following unprotected intercourse. He sought management at the Ayurvedic Hospital.

He was advised to undergo investigations, including Complete Blood Count (CBC), Erythrocyte Sedimentation Rate (ESR), Fasting Blood Sugar (FBS), Post-Prandial Blood Sugar (PPBS), Vitamin B12, Vitamin D, and semen analysis. All reports were within normal limits, except for the semen analysis, which confirmed the diagnosis of oligospermia. The patient had no history of hypertension, diabetes, thyroid dysfunction, tuberculosis, asthma, or any other allergies. Family and medical histories were unremarkable. Personal habits included a healthy mixed diet, a history of smoking, good sleep patterns, and regular bowel movements.

Examination of Patient

Ashtavidha Pariksha (Eight folds of examinations)

Ashtavidha Pariksha is a fundamental diagnostic tool in Ayurveda. [Table/Fig-1] presents the findings.

S. No.	Examination	Observation
1.	<i>Nadi</i> (Pulse rate)	80 times/minute, <i>kapha pitta</i>
2.	<i>Mutra</i> (Frequency of micturition)	4-5 times per day, <i>samyak</i>
3.	<i>Mala</i> (Bowel)	Regular, <i>Prakrita</i>
4.	<i>Jihva</i> (Tongue)	<i>Saam</i>
5.	<i>Shabda</i> (Sound)	<i>Spashta</i>
6.	<i>Sparsha</i> (Touch)	<i>Anushnasheet</i>
7.	<i>Drik</i> (Vision)	<i>Prakruta</i>
8.	<i>Akriti</i> (Body built)	<i>Madhyam</i>

[Table/Fig-1]: *Ashtavidha Pariksha* (Eight folds of examinations).

General examination: The patient's vital signs were within normal limits: blood pressure was 120/70 mmHg, respiratory rate was 14 breaths per minute, pulse rate was 80 beats per minute, and he was afebrile. The patient was conscious and oriented. Cardiovascular examination revealed normal heart sounds (S1 and S2 present). The respiratory system was clear upon examination. The abdomen was soft and non-tender. Local examination showed no anatomical abnormalities in the penis, testes, or scrotum. Furthermore, there were no symptoms of rashes, ulcerations, or inflammation.

Haematological investigations: CBC showed Haemoglobin (Hb) at 12 gm%, ESR at 10 mm/hr, FBS at 98 mg/dL, and PPBS at 140 mg/dL. Vitamin B12 levels were 259 pg/mL, and Vitamin D levels were 53 ng/mL, all within normal limits.

Differential diagnoses include endocrine causes such as hypothyroidism, hyperprolactinemia, and diabetes mellitus, which can contribute to both low sperm count and fatigue.

Assessment parameters:

- Total sperm count
- Total sperm motility

Treatment given:

1. *Shodhan* treatment (bio-purification) [Table/Fig-2].
2. *Shaman* treatment (curative treatment) [Table/Fig-3].

Diet regimen: The diet plan after the *Shodhan* therapy, including after *Virechana* (purgation), is presented in [Table/Fig-4].

Treatment was administered for three months, with follow-up evaluations on the 30th, 60th, and 90th days [Table/Fig-5]. The following criteria were used to evaluate the patient:

DISCUSSION

Oligospermia can affect a man's ability to conceive a child by reducing either the quantity or quality of sperm [1]. According to the World Health Organisation (WHO), a sperm concentration of less than 15 million sperm per milliliter of semen is classified as oligospermia [2]. Understanding its causes, effects, diagnosis, and treatment options is crucial for managing and improving male fertility. In Ayurveda, oligospermia is correlated with *Kshina Shukra*.

Procedure	Medication	Duration	Dose and frequency	Route of medication
Deepana and Pachan	Trikatu powder	3 days (27/2/24-29/2/24)	5 gm twice a day with lukewarm water	orally
Internal Snehan	Phala Ghrit	6 days (1/3/24-6/3/24)	1 st day (8 am)-30 mL 2 nd day- 60 mL 3 rd day- 90 mL 4 th day- 120 mL 5 th day- 150 mL 6 th day- 180 mL	orally
Snehan and Swedan	Balashwagandhataila	2 days (7/3/24-8/3/24)	Once a day	massage
Virechan	Ichhabhedhi rasa	1 day (9/3/24)	2 tabs with cold water	orally
Uttarbasti (after 15 days of Virechan)	Phala ghrit	30 ml /day	Once a day for 15 days and after rest of 5 days cycle repeated again and again in this sequence for 2 months	Through penis

[Table/Fig-2]: Shodhan Chikitsa (bio-purification treatment).

Diet	Route of administration	Date
Morning- lukewarm water Evening- Peya (rice +14 times water)	orally	10/3/24
Morning- Peya (rice +14 times water) Evening- Vilepi (rice +6 times water)	orally	11/3/24
Morning- Vilepi (rice +6 times water) Evening- AkrutYush (Dal + 16 times water)	orally	12/3/24
Morning- Kruta Yush (Dal + 16 times water + spices) Evening- akutamamsa rasa (mamsa + 4 times water)	orally	13/3/24
Morning- krutMamsa rasa (mamsa + 4 times water + Spices) Evening- Normal food	orally	14/3/24

[Table/Fig-3]: Diet regimen after virechana.

S. No.	Medications (Orally)	Dose	Anupan & Frequency	Duration
1.	Cap addyzoa	2 cap	Twice a day after food with milk	3 months
2.	Phala ghrit	2 tsp	Twice a day before food with lukewarm water	3 months
3.	Ajamansa Rasayan	2 tsp	Twice a day after food with milk	3 months
4.	Happy Knights avaleha	2 tsp	Twice a day after food with milk	3 months

[Table/Fig-4]: Shaman treatment.

S. No.	Assessment parameters	Before treatment	After treatment
1.	pH	8.0	7.0
2.	Volume	1.5 mL	4 mL
3.	Appearance	Homogenous grey opalas	Greyish white, viscous
4.	Total sperm count	10-12 million/mL	90 million/mL
5.	Sperm motility	40%	60%
6.	Normal morphology	70%	70%
7.	Pus cell	10-12 cells/hpf	2-5 cell/hpf

[Table/Fig-5]: Follow-up details of the patient.

Primarily, vitiated *Vata* and *Pitta* are responsible for *Kshinashukra*. Vitiated *Vata* dries out the *Shukra Dhātu* (semen), while aggravated *Pitta* causes inflammatory changes, which may correlate with oxidative stress and sperm damage [3].

Ayurveda offers a promising option for treating oligospermia without side-effects. *Panchakarma* procedures are employed to eliminate toxins and clear blockages in the channels of *Shukra Dhātu* (semen). *Panchakarma* therapies, such as *Basti* (enema) and *Virechana* (purgation), were administered to eliminate vitiated *Doshas*, particularly *Vata* and *Pitta*. Some case studies related to oligospermia and their results are mentioned in [Table/Fig-6]. However, this case study demonstrates significant improvements

in sperm count and motility with *Shamana* (curative) and *Shodhana* (bio-purification) treatment.

Action of Deepan Pachan: *Deepana* (appetizer) and *Pachana* (digestion) stimulate *Agni* (digestive fire) and improve the digestion of food and nutrients. This process is primarily used to correct *mandagni* (weak digestion) and enhance the body's ability to assimilate nutrients effectively. In the context of *Ksheena Shukra* (oligospermia), improving digestion is essential to nourish the *Shukra Dhātu* (semen), which is vital for male fertility. *Deepana* (appetizer) herbs also increase the effectiveness of other treatments, such as *Rasayanas* (rejuvenating herbs) and *Shukra Dhātu* tonics, by improving their absorption and efficacy. *Pachana* (digestion) aids in eliminating *Aama* (undigested food) from the body, which can block the channels and interfere with the production of *Shukra* (semen), leading to poor semen quality and low sperm count. By eliminating these toxins, *Pachana* supports the proper nourishment of the reproductive system [4].

Action of Snehan: *Shukra Dhātu* (semen) is the key tissue responsible for reproduction, and its health directly impacts sperm count and quality. *Snehan* (internal intake of medicated *ghee*) nourishes *Shukra Dhātu*, revitalising its production and improving its quality. The oily, unctuous nature of the medicated *ghee* or oils used in *Snehan* helps lubricate and nourish the tissues, ensuring they receive adequate nutrients to form healthy semen. *Snehan* also strengthens *Agni* (digestive fire) and improves digestive function, which is critical for the formation of *Shukra Dhātu*, as healthy nutrition directly contributes to the vitality and quality of sperm. By enhancing the digestive process, *Snehan* helps absorb vital nutrients such as vitamins, minerals, and proteins that are necessary for the production of healthy semen [5].

Action of Snehan and Swedan: Oleation therapy (*Abhyanga* or external oil massage) and sudation (*Swedan*) help to soften the tissues and open up the channels. Both oleation and sudation were consequently administered. This process promotes venous blood drainage and local blood flow, aiding in the removal of waste materials. *Swedan* generates local heat, which enhances microvascular metabolism and improves localised lymphatic and vascular perfusion [6].

Action of Virechana: *Virechana* (purgation) assists in the elimination of *Aama* (undigested or improperly metabolised substances) and other toxins from the body. These toxins may interfere with the production of healthy *Shukra Dhātu* (semen). When the *Shukravaha Srotas* (channels responsible for transporting *Shukra Dhātu*) are blocked by accumulated toxins, it leads to *Shukra Kshaya* (a decline in the quantity and quality of semen). By clearing these toxins, *Virechana* restores the proper flow of nutrients and enhances the formation of healthy semen [7]. The detoxification process of *Virechana* helps to restore the balance of *Shukra Dhātu* and correct any depletion (*Shukra Kshaya*) that has occurred due to toxins or metabolic imbalances.

Action of Uttarbasti: This Ayurvedic *Panchakarma* procedure is primarily used in the management of reproductive and urinary tract disorders. It involves administering medicated oils, ghee, or decoctions directly into the urinary bladder through the genital organ (penis). *Uttarbasti* removes toxins (*Ama*) accumulated in the reproductive and urinary systems and clears obstructions in the channels (*Srotas*), such as *Mutravaha Srotas* (urinary channels). It acts on the urinary tract and seminal vesicles, enhancing both the quality and quantity of sperm by directly stimulating the *Shukra Dhatu* (semen) [3].

Action of Shaman Medications

Cap Addyzoa: Oxidative stress is a major contributor to sperm dysfunction in oligospermia. *Addyzoa* contains potent antioxidants like L-carnitine, Coenzyme Q10, and herbal extracts, which neutralise free radicals and prevent lipid peroxidation in sperm membranes. This protects the sperm from oxidative damage,

Gokshura (*Tribulus terrestris*) is used to improve sperm motility and count, supporting overall reproductive function. *Amla* (*Embolica officinalis*) is rich in vitamin C and antioxidants, which help rejuvenate the reproductive system and improve sperm quality.

Happy Knights Avaleha: This is a herbal formulation that includes *Gokshura* (*Tribulus terrestris*), *Tinospora cordifolia*, *Crocus sativus*, and other ingredients. All these contents possess aphrodisiac properties and support the proper function of the reproductive system [9].

Ajamansa Rasayan: This is mentioned in *Sahasrayoga* in *Parishishtaprakarana Taila - Ghruta*, where drugs like *Dashmool*, *Rasna*, and *Jeevaniya Gana* are discussed. These drugs have qualities such as *Vatahar* (*Vata pacifier*), *Balya* (strength enhancer), and *Brihan* (nourishing) due to their *Sneha Guna* (unctuous quality) [10]. Previously published cases are tabulated in [Table/ Fig-6] [7,11-13].

Author and year	Complaints	Management	Conclusion
Asmabi MA and Rajasree R 2023 [11]	A 32-year-old male patient presented with complaints of primary infertility due to severe oligospermia associated with hypotrophy of testes and hyperviscosity since three years and six months of married life	<i>Chiruvilwadi kshaya</i> <i>Hinguvachadi churna</i> <i>Ardhavilwam kashaya</i>	After treatment, total sperm count increased from 1 million/cc to 20 million/cc, active motility improved from 3% to 10%, viscosity became normal, and liquefaction time decreased from 1 h to 30 min
Lekshmi SJ et al., 2022 [12]	30-year-old male with oligospermia with sperm count 11.8 million/mL is presented with Dourbalya, Srama, Mukha Sossa, Sadana, Maithuna Ashakti and Angamarda since 8 months is unable to procure child even after 1.5 years of unprotected sexual intercourse	Anulomana with Avipathi Choorna on the first day and followed by the administration of Svadamshtradi Choorna from 3 rd day 6 gm twice daily the morning before food and the evening	Significant role in managing oligospermia and improving the seminal parameters as well as sexual health parameters
Panwar M et al., 2023 [13]	36-year-old man who had been diagnosed with oligoasthenospermia,	Sarvanga Abhyanga with Dasmoool Taila followed <i>Vashpa Sweda Karma Basti</i> Efficacy of <i>Amalaki Churna</i> in the management of Oligozoospermia-	Significant role in managing oligospermia and improving the seminal parameters
Varsakiya JN and Nayak S 2022 [7]	Case of a 27-year-old, healthy male patient visited with complaints of being unable to Conceive her partner even after having 4 years of married life. Semen analysis of this patient revealed a low sperm count of 4 million/mL with no other abnormalities.	Virechana followed by administered <i>Amalaki Churna</i> 3 gm twice a day morning and evening empty stomach with 1 cup of luke warm milk for 6 weeks	Total sperm Count increased to 35 million/mL
Present case, 2025	A 30-year-old male patient visited OPD with General debility, and fatigue for 1 year and was diagnosed as oligospermia	Deepana, pachana internal intake of ghrut, Snehan Swedan after it Shodhan virechan (purgative and uttarbasti with Phala Ghrut and orally Cap addyzoa, Phala ghrut, Ajamansa Rasayan, Happy Knights Avaleha for 3 months	This case has shown significant results in improving sperm count from 10-12 million /mL to 90 million/mL and sperm motility from 40% to 60% within 3 months.

[Table/Fig-6]: Previous case study on Ayurvedic management of Ksheena Shukra (Oligospermia) [7,11-13].

thereby improving their morphology and motility. Additionally, it helps reduce *Ama* (toxins) and improve *Agni* (digestive fire), which indirectly contributes to better sperm quality by enhancing overall metabolism and detoxification [8].

Phala Ghruta: *Phala Ghruta* nourishes the *Shukra Dhatu* (semen), which is responsible for sperm production and male reproductive health. It enhances both the quality and quantity of sperm by improving the overall function of the reproductive system. *Ghee* is considered the ultimate *Rasayana* (rejuvenating agent); it supports the growth, development, and vitality of tissues, including *Shukra Dhatu*. This is crucial for addressing issues such as low sperm count and poor semen quality. Additionally, it supports the overall endocrine system, including the production of testosterone, which is essential for sperm production. *Phala Ghruta* can help balance hormonal levels and reduce any deficiencies that might contribute to low sperm count and infertility.

The following ingredients are in *Phala Ghruta*: *Ashwagandha* (*Withania somnifera*) is known for its ability to enhance male fertility, improve sperm count, and restore vitality [3]. *Shatavari* (*Asparagus racemosus*) is a well-known herb for improving reproductive health, particularly in men, by promoting healthy sperm production.

CONCLUSION(S)

After three months of treatment, there was noticeable clinical improvement. The assessment parameters used in the case study to determine the patient's diagnosis also showed considerable improvement. Thus, the present case study explored the successful management of oligospermia (low sperm count) using Ayurvedic interventions. Through a holistic treatment approach, the patient's sperm count, motility, and overall fertility were significantly improved.

Declaration of patient consent: The authors certify that they have obtained the required consent forms from the patients. The patients have permitted the use of their clinical data. They understand that every effort will be made to conceal their identities and to keep their names and initials private.

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PLAGIARISM CHECKING METHODS: [Jain H et al.]

- Plagiarism X-checker: Jan 03, 2025
- Manual Googling: Apr 04, 2025
- iThenticate Software: May 03, 2025 (9%)

ETYMOLOGY: Author Origin

EMENDATIONS: 6

AUTHOR DECLARATION:

- Financial or Other Competing Interests: None
- Was informed consent obtained from the subjects involved in the study? Yes
- For any images presented appropriate consent has been obtained from the subjects. NA

Date of Submission: Dec 29, 2024

Date of Peer Review: Apr 17, 2025

Date of Acceptance: May 06, 2025

Date of Publishing: Sep 01, 2025