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Case Series

Clinical Outcome of *Virechana* Followed by Ayurvedic Oral Medication in Idiopathic Oligozoospermia: A Prospective Case Series

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ABSTRACT:

Background: Infertility is an escalating global concern, impacting one-sixth of the reproductive-age population worldwide. Idiopathic oligozoospermia is a common cause of male infertility characterized by low sperm concentration without identifiable etiology in modern medicine. From an Ayurvedic perspective, it may correlate with *Kshinashukra*. **Aim:** This prospective interventional case series aims to evaluate the clinical effect of an Ayurvedic treatment protocol in improving semen parameters and FertiQoL scores in patients with *Kshinashukra*. **Materials and Methods:** Six cases of primary infertility associated with idiopathic oligozoospermia are reported. The treatment plan included *Virechana* (therapeutic purgation) followed by oral medication, administered for 33 days. The primary outcome was change in semen parameters, and the secondary outcome comprised change in FertiQoL (Fertility Quality of Life) score. Assessments were performed at baseline, post-treatment and during follow-up. **Results:** Marked improvement in the sperm concentration of all six patients was observed. The mean sperm concentration increased from 5.83 million/mL to 25.83 million/mL after treatment and was maintained at 27.67 million/mL during follow-up. All participants achieved sperm concentration above the WHO Laboratory Manual, 6th edition 2021 lower fifth percentile reference limit (16 million/mL) after treatment. The FertiQoL score improved from 38.83 ± 4.88 to 60.17 ± 3.54 (mean increase of 21.33 ± 3.98). The intervention was well tolerated, and no adverse events were observed. **Conclusion:** In this uncontrolled six-patient case series, *Virechana* followed by oral Ayurvedic medication was associated with increased sperm concentration and improved FertiQoL scores. The mean sperm concentration increased from 5.83 million/mL to 25.83 million/mL post-treatment (+20.00 million/mL) and was sustained at 27.67 million/mL during follow-up. The FertiQoL score improved from 38.83 ± 4.88 to 60.17 ± 3.54. These preliminary findings require confirmation in controlled clinical studies due to the small sample size, lack of a control group, and absence of pregnancy outcome data.

KEYWORDS: Case Series, FertiQoL, *Kshinashukra,* Oligospermia, Oligozoospermia, *Virechana*.

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1. INTRODUCTION

Infertility is defined as the inability to conceive after one year of regular, unprotected sexual intercourse. [1] It affects approximately one in six adults of reproductive age and may be primary or secondary. [2] Idiopathic oligozoospermia accounts for approximately 30-40% of cases of male infertility. [3, 4] It refers to reduced sperm concentration without an identifiable cause following appropriate clinical evaluation, including medical history, physical examination, ultrasonography of the abdomen, pelvis, and scrotum, and hormonal assessment. According to the WHO Laboratory Manual for the Examination and Processing of Human Semen, sixth edition (2021), the lower fifth percentile reference value for sperm concentration is 16 million/mL (95% CI 15-18) (in this study, the eligibility cutoff was set at sperm concentration <15 million/mL). Genetic testing and specialized investigation were not performed in this study; therefore, the diagnosis remained clinical-idiopathic. Its etiology remains unclear, with proposed mechanisms including genetic and epigenetic abnormalities, oxidative stress, Sertoli cell dysfunction, and environmental or lifestyle factors [5, 6, 7]. In modern medicine, idiopathic oligozoospermia can be managed with antioxidant supplementation, lifestyle modifications, and hormonal therapies. [8] From an Ayurvedic perspective, the condition can be correlated with *Kshinashukra,* one of the *Shukra Dushti* (vitiation of *Shukra*) described in the classics. [9] The *Nidana* (causative factors) include *Vegasandharana* (suppression of natural urges), *Viruddha Ahara* (incompatible diet), *Mansik Vikaras* (psychological factors), and improper lifestyle. These lead to vitiation of *Vata* and *Pitta Doshas*. The aggravated *Doshas* hamper the *Jatharagni* (digestive fire), resulting in the formation of *Amadosha* (undigested toxins). This *Ama* obstructs the *Rasavaha Srotas* (channels carrying nutrient fluids), disturbing *Dhatuparinamana* (tissue transformation). The proper formation of *Rasa Dhatu* (primary product of digested food) is affected, which hampers the successive *Dhatu Parinamana* (metamorphosis), leading to defective formation and depletion of *Shukra Dhatu*. This case series describes changes observed following administration of *Virechana* followed by oral medication for improving sperm concentration. Objective of study:

This prospective case series aimed to evaluate the clinical effect of an Ayurvedic treatment protocol comprising *Virechana* followed by oral medication, describing changes in semen parameters in patients with idiopathic oligozoospermia. The peculiarity of this series lies in the combined assessment of objective semen parameters and fertility-related quality of life (FertiQoL) following a classical Ayurvedic protocol-an approach rarely documented in the existing literature.

2. MATERIAL AND METHODS:

This prospective interventional case series was conducted on six participants diagnosed with idiopathic oligozoospermia attending the special OPD of *Vajikarana* between 02 December 2025 and 10 December 2025, and were screened. All consecutive patients who fulfilled the inclusion criteria and provided written informed consent were enrolled using a consecutive non-probability sampling method; no eligible patient refused participation.

Ethical Consideration: The study was conducted in accordance with the Declaration of Helsinki. Written informed consent was obtained from all six participants. Separate IEC approval was not required, as per norms for observational case series. Patient confidentiality was maintained.

Inclusion criteria:

- Male patients aged between 21 and 40 years with primary infertility due to male factor.
- Confirmed diagnosis of idiopathic oligozoospermia (sperm concentration <15 million/mL; the WHO Laboratory Manual, 6th edition 2021 lower fifth percentile is 16 million/mL).
- Normal hormonal profile (FSH, LH, Prolactin, Serum Testosterone)
- Female partner with normal fertility parameters.

Exclusion criteria:

- Oligozoospermia due to an identifiable cause (infection, varicocele, hormonal imbalance).
- Abnormal FSH, LH, Prolactin, and serum testosterone levels at baseline.
- Participants with Azoospermia or severe oligospermia (<1 million/mL)
- Participants on any other fertility treatment in the last 3 months.
- Presence of female factor infertility.

Intervention: A structured Ayurvedic treatment protocol of *Virechana* followed by *Shaman Chikitsa* (*Gokshuradi Vati)* was administered over approximately 33 days.

Outcome measures:

Primary outcome: Increase in sperm concentration (million/mL).

Secondary outcome: Change in fertility-related quality of life measured by FertiQoL score. The Fertility Quality of Life (FertiQoL) questionnaire (international version, 2008) was used to assess quality of life. The core FertiQoL consists of 24 items covering four domains: Emotional, Mind-Body, Relational and Social. The English version was administered by the treating physician. Responses were scored according to the official FertiQoL scoring manual and converted to a 0-100 scale, with higher scores indicating better quality of life.

Outcome assessment: Pre- and post-treatment evaluations were performed using semen analysis and FertiQoL score. (Semen analysis was performed as per the WHO laboratory manual, 6th edition 2021, after 3 to 5 days of sexual abstinence).

Assessment Schedule:

At baseline (BT): Semen analysis, FSH, LH, Prolactin, serum testosterone, FertiQoL score, USG- abdomen, pelvis and scrotum.

Post- treatment: After completion of 33 days of treatment (Semen analysis and FertiQoL score).

Follow-up:

- 1st Follow-up: 14 days after completion of treatment (clinical assessment)
- 2nd Follow-up: 14 days after 1st follow-up. (Semen analysis was performed at this visit)

Patient information:

This case series reports six male patients with idiopathic oligozoospermia associated with primary infertility. All the patients presented to the OPD with no evidence of congenital malformations or other comorbidities, as confirmed by physical examination, ultrasonography (USG) of the abdomen, pelvis, and scrotum, and normal hormonal assays. The primary outcome measure was improvement in semen parameters (sperm concentration). Routine clinical findings are presented in Table 1. On *Dashvidha Pareeksha*, *Prakruti* was *Vata-Pitta* in cases 1, 3, 4, and 6 and *Vata-Kapha* in Cases 2 and 5. The *Vikruti* was characterized by *Shukra Dushti* associated with *Vata* and *Pitta* Vitiation. *Sara*, *Samhanana*, *Pramana*, *Satva*, *Vaya*, *Vyayamshakti*, and *Aahara Shakti* were assessed as *Madhyama*, while *Satmya* was described as *Sarva Rasa Satmya* and *Agni* as *Sama*. *Ashtavidha Pareeksha* findings were normal in all cases except case 3, who presented with constipation.

Table 1: Detailed clinical history of individual cases.

	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6
Date of evaluation	02/12/2025	03/12/2025	03/12/2025	07/12/2025	07/12/2025	10/12/2025
Age / marital duration	25 yrs/ 2 yrs	26 yrs/ 2 yrs	23 yrs/ 1 yrs	27 yrs/ 2 yrs	24 yrs/ 1 yrs	25 yrs/ 2 yrs
Clinical history	Primary infertility; normal sexual function; no H/o trauma or infection					
Family/history	F/H-NS; C/H-NS; P/M/H-NS					
Semen Analysis: Volume (2 mL)	2	2.5	2.5	2	2.5	2.5
Sperm concentration (million/mL)	03	07	05	02	08	10
Motility and Morphology	Normal					
Hormonal assay	02/12/2025	03/12/2025	05/12/2025	07/12/2025	07/12/2025	10/12/2025

Serum testosterone (ng/dL)	400	450	550.50	600	700	750
FSH (mIU/mL)	6.5	6.3	6.5	8.5	8.5	8.5
LH (mIU/mL)	4.5	5.0	6.5	5.6	6.5	6.8
Prolactin (ng/mL)	04	07	10	12	15	11
Urogenital examination and ultrasound of abdomen, pelvis, and scrotum	Normal					
Remark	Idiopathic oligozoospermia					

Case 1: A 25-year-old male presented with primary infertility of two years' duration without prior treatment. Baseline semen analysis and hormonal assessment on December 02, 2025, revealed a semen volume of 2 mL and sperm concentration of 3 million/mL, with normal hormonal findings. His female partner was evaluated by a gynecologist and had no identified reproductive or endocrine abnormalities.

Diagnostic challenges: Normal hormonal assays and imaging excluded identifiable causes, supporting a clinical diagnosis of idiopathic oligozoospermia.

Case 2: A 26-year-old male presented with primary infertility of two years' duration without prior treatment. Baseline semen analysis on December 03, 2025, revealed a semen volume of 2.5 mL and sperm concentration of 7 million/mL. female partner was clinically normal and had regular menstrual cycles.

Diagnostic challenges: The low baseline sperm concentration warranted evaluation for identifiable causes of oligozoospermia; a normal hormonal profile and imaging helped establish the idiopathic diagnosis.

Case 3: A 23-year-old male presented with primary infertility of one year's duration without prior treatment. Semen analysis and hormonal assays on December 05, 2025, revealed a semen volume of 2.5 mL and sperm concentration of 05 million/mL. His female partner was normal.

Diagnostic challenges: short infertility duration and younger age warranted consideration of transient or lifestyle-related factors. Diagnosis was based on a single baseline semen analysis, with normal hormonal and imaging findings.

Case 4: A 27-year-old male presented with primary infertility of two years' duration. Semen analysis on December 07, 2025, revealed a volume of 2mL and sperm concentration of 2 million/mL, with normal hormonal findings. His female partner had no identified gynecological or endocrine abnormalities.

Diagnostic challenges: Low baseline sperm concentration (2 million/mL) suggested severe oligozoospermia. Evaluation revealed no identifiable cause, supporting a clinical diagnosis of idiopathic oligozoospermia.

Case 5: A 24-year-old male presented with primary infertility of one year's duration, reporting regular unprotected intercourse two to three times weekly. Semen analysis on December 07, 2025, revealed a volume of 2.5 mL, sperm concentration of 8 million/mL, normal motility and morphology, and a normal hormonal profile. His female partner had no identified gynecological or endocrine abnormalities.

Diagnostic challenges: Short marital duration and borderline low sperm concentration required exclusion of stress-related factors; normal endocrine and imaging findings confirmed idiopathic oligozoospermia.

Case 6: A 25-year-old male presented with primary infertility of two years' duration, reporting regular unprotected intercourse two to three times weekly. Semen analysis on December 10, 2025, revealed a volume of 2.5 mL and sperm concentration of 10 million/mL. His female partner had no identified gynecological or endocrine abnormalities.

Diagnostic challenges: Diagnosis was based on a single baseline semen analysis. Idiopathic oligozoospermia was established after normal hormonal and imaging work-up.

Diagnostic Assessment: All six participants underwent detailed clinical history-taking, general and systemic examinations, including vital signs and urogenital assessment, and ultrasonography of the abdomen, pelvis, and scrotum. Baseline hormonal assays were performed to exclude endocrine causes. Idiopathic oligozoospermia was diagnosed based on baseline semen analysis following 3-5 days of abstinence, with sperm concentration below 15 million/mL (eligibility cutoff; WHO 6th edition lower fifth percentile is 16 million/mL). Although some patients had previous semen reports, repeat pre-treatment analyses were unavailable for all cases. Semen analyses were performed at baseline, post-treatment, and follow-up to assess changes in sperm concentration.

Therapeutic Intervention: The treatment approach followed the Ayurvedic protocol of *Kshinashukra. Virechana Karma* was administered for detoxification, followed by *Sansarjana Krama*. Thereafter, *Gokshuradi Vati* consisting of *Gokshura, Ikshuraka, Masha, Atmagupta,* and *Shatavari* in equal proportions was administered at a dose of 4 *Vati* (500 mg each; 2 g) twice daily before meals with cow's milk for 14 consecutive days. The formulation was prepared by the Institutional Pharmacy (Batch No. 3) according to the standard institutional formulation procedure and subjected to microbiological quality-control testing before dispensing. This regimen was advised for all cases. Detailed interventions, including drug doses and duration, are listed in Table 2.

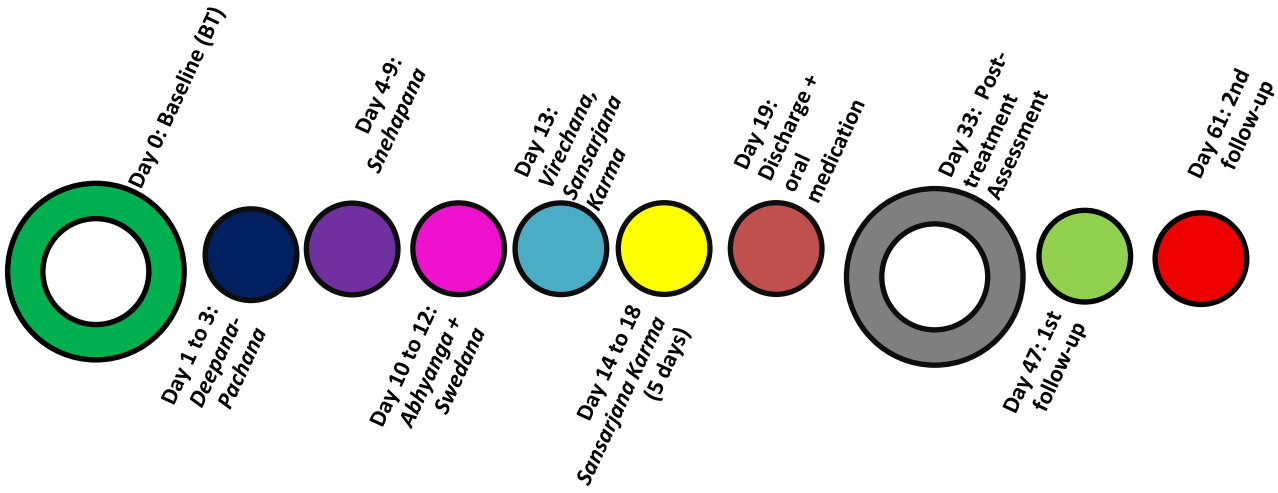


Figure 1: Participants Timeline

Table 2: Details of *Virechana* and oral medication administered to participants.

Treatment component	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6
Deepan – Pachana (Day 1 - 3)	02/12/2025 To 04/12/2025	03/12/2025 To 05/12/2025	05/12/2025 To 07/12/2025	07/12/2025 To 09/12/2025	07/12/2025 To 09/12/2025	10/12/2025 To 12/12/2025
Snehapana with *Shudha Go-Ghrita* for 6 days (Day 4 - 9)	05/12/2025	06/12/2025	08/12/2025	10/12/2025	10/12/2025	13/12/2025
Day 1	40 mL	30 mL	40 mL	50 mL	50 mL	40 mL
Day 2	80 mL	60 mL	80 mL	100 mL	100 mL	80 mL
Day 3	120 mL	90 mL	120 mL	150 mL	150 mL	120 mL

Day 4	160 mL	120 mL	160 mL	200 mL	200 mL	160 mL
Day 5	200 mL	150mL	200 mL	250 mL	250 mL	200 mL
Day 6	240 mL	180 mL	240 mL	300 mL	300 mL	240 mL
Sarvanga Abhyanga with Bala Taila and *Sarvanga Bashpa Swedana* with *Dashamoola Kwath* (Day 10 - 12)	11/12/2025 To 13/12/2025	12/12/2025 To 14/12/2025	14/12/2025 To 16/12/2025	16/12/2025 To 18/12/2025	16/12/2025 To 18/12/2025	19/12/2025 To 21/12/2025
Virechana with *Kalyanaka Guda* (Nagarjuna pharmacy batch no. 69/25-D/88) (Day 13)	100 g (14/12/2025)	80 g (15/12/2025)	100 g (17/12/2025)	80 g (19/12/2025)	130 g (19/12/2025)	120 g (22/12/2025)
Sudhi (Vaigiki)	*Madhyam* (15 *Vega*)	*Madhyam* (17 *Vega*)	*Madhyam* (14 *Vega*)	*Madhyam* (20 *Vega*)	*Madhyam* (20 *Vega*)	*Madhyam* (18 *Vega*)
Laingiki	*Laghuta, Agnivridhi, Utsaha, Indriyaprasad, Vatanulomana.*	*Laghuta, Agnivridhi, Utsaha, Indriyaprasad, Vatanulomana*	*Laghuta, Agnivridhi, Utsaha, Vatanulomana*	*Laghuta, Agnivridhi, Utsaha, Indriyaprasad, Vatanulomana*	*Laghuta, Agnivridhi, Utsaha, Vatanulomana*	*Laghuta, Agnivridhi, Utsaha, Indriyaprasad, Vatanulomana*
Antiki	*Kaphanta Virechana* (*Shwetabha Pichchila Malapravrutti*) seen.					
Sansarjana Krama (Day 14 – 18)	5 days (9 *Annakal*)					
Shaman Chikitsa (Day 19 – 32)	*Gokshuradi Vati* 4 *Vati* (each of 500 mg) twice a day before meals with cow's milk					
	20/12/2025 to 03/01/2026	21/12/2025 to 04/01/2026	23/12/2025 to 06/01/2026	25/12/2025 to 08/01/2026	25/12/2025 to 08/01/2026	28/12/2025 to 11/01/2026
Post-treatment assessment (Day-33)	03/01/2026	04/01/2026	06/01/2026	08/01/2026	08/01/2026	11/01/2026
1st follow-up (Day 47)	17/01/2026	18/01/2026	20/01/2026	22/01/2026	22/01/2026	25/01/2026
2nd follow-up (Day 61)	31/01/2026	01/02/2026	03/02/2026	05/02/2026	05/02/2026	08/02/2026

3. OUTCOME AND FOLLOW-UP:

All six participants achieved sperm concentration and FertiQoL scores following treatment, with sustained improvements at follow-up.

Case 1: Sperm concentration increased from 3 million/mL at baseline to 22 million/mL post-treatment and 23 million/mL at follow-up. FertiQoL score improved from 40 to 60.

Case 2: Sperm concentration increased from 7 to 25 million/mL post-treatment and 27 million/mL at follow-up. FertiQoL score improved from 35 to 58 post-treatment.

Case 3: Pre-treatment sperm concentration was 5 million/mL, increasing to 30 million/mL post-treatment and to 32 million/mL at follow-up. The FertiQoL score increased from 38 to 55 post-treatment.

Case 4: Sperm concentration increased from 2 to 28 million/mL post-treatment and 30 million/mL at follow-up. FertiQoL score improved from 43 to 65.

Case 5: Sperm concentration increased from 8 to 30 million/mL post-treatment and 32 million/mL at follow-up. The FertiQoL score improved from 45 to 63 post-treatment.

Case 6: Pre-treatment sperm concentration was 10 million/mL, which improved to 20 million/mL post-treatment and 22 million/mL at follow-up. FertiQoL score improved from 32 to 60. Treatment outcomes for semen parameters and FertiQoL scores are summarized in Table 3 and Table 4, respectively.

Table 3: Effect of intervention on semen parameters and FertiQoL.

Parameters	Volume (mL)	Fructose	Sperm concentration (million/mL)	Total motility (PR+NP) %	Normal forms (%)	FertiQoL score
Case 1						
BT	2.0	+	3	50	20	40
AT	2.5	+	22	60	20	60
Follow-up	3.0	+	23	60	20	-
Case 2						
BT	2.5	+	7	45	15	35
AT	3.5	+	25	50	20	58
Follow-up	3.5	+	27	60	20	-
Case 3						
BT	2.5	+	5	60	20	38
AT	2.5	+	30	65	20	55
Follow-up	3.0	+	32	65	20	-
Case 4						
BT	2.5	+	2	50	10	43
AT	3.5	+	28	60	20	65
Follow-up	3.5	+	30	65	25	-
Case 5						
BT	2.5	+	8	45	20	45
AT	3.0	+	30	60	20	63
Follow-up	3.5	+	32	65	20	-
Case 6						
BT	2.5	+	10	60	20	32
AT	3.0	+	20	60	20	60
Follow-up	3.5	+	22	65	25	-

Abbreviations: BT- before treatment, AT – after treatment; PR+NP- Progressive+Non-progressive motility; Fructose: (+) detected fructose was assessed qualitatively; FertiQoL- Fertility Quality of Life.

Table 4: Overall summary.

Parameter	Baseline (mean± SD)	Post-treatment (mean ± SD)	Absolute Change (mean ± SD)
Total sperm concentration (million/mL)	5.83 ± 3.06	25.83 ± 4.22	+20.00 ± 5.48
FertiQoL Score	38.83 ± 4.88	60.17 ± 3.54	+21.33 ± 3.98

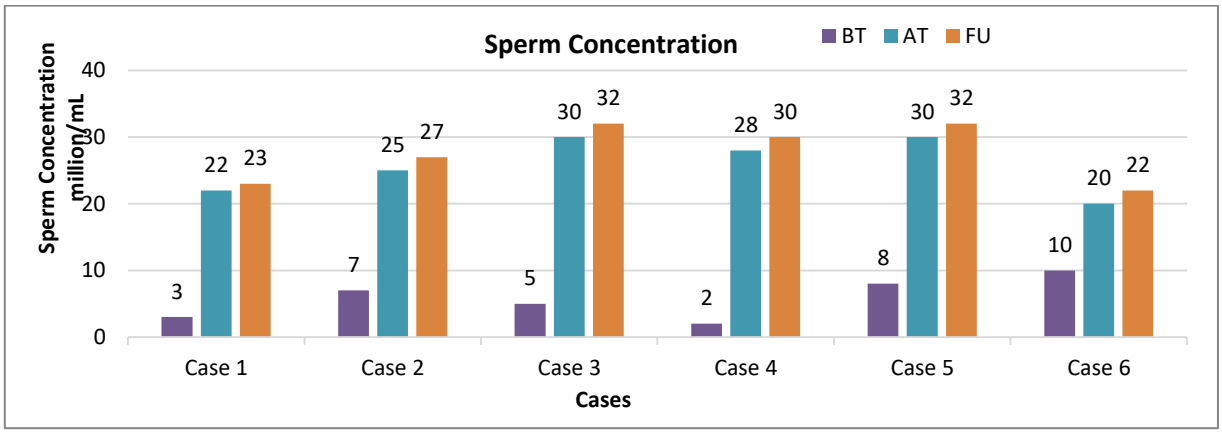


Figure 2: Before, after, and during follow-up outcomes for sperm concentration in all cases.

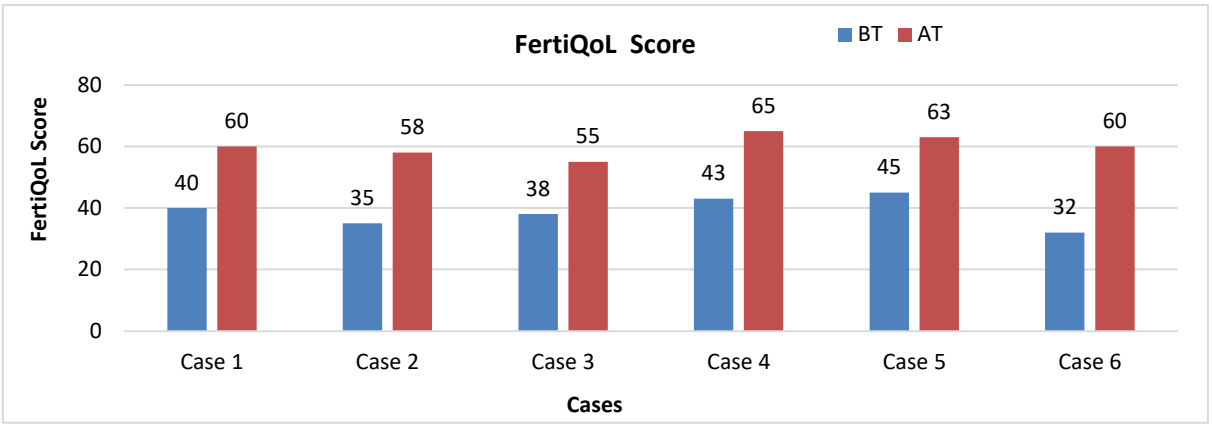


Figure 3: Pre-treatment and post-intervention outcome in FertiQoL score in all cases.

Adherence and tolerability: Treatment adherence was assessed during IPD stay and follow-up visits, with all six participants demonstrating good compliance. Adverse events were monitored through daily recording of vital signs (pulse, blood pressure, temperature) and a predefined checklist covering nausea, vomiting, diarrhea, weakness, abdominal pain, and skin rash. Follow-up assessments on day 14 and 28 included symptom evaluation. Complete blood count, liver function, and renal function tests were performed at baseline and post-treatment. No adverse events or treatment-related abnormalities were observed during the intervention or follow-up period.

4. DISCUSSION:

Infertility has an impact on a couple's psychological and reproductive health, as well as their social functioning. Oligozoospermia is a common cause of male infertility, characterized by a low sperm count. [10] When no identifiable cause is established after clinical, hormonal, and radiological evaluation, it is termed idiopathic oligozoospermia. [11] Proposed mechanisms include oxidative stress, environmental toxins, and genetic or epigenetic abnormalities affecting spermatogenesis, making it challenging to manage. [12, 13] In Ayurveda. oligozoospermia can be correlated with *Kshinashukra,* one of the *Shukra Dushti*. The preliminary mechanism is understood to be the involvement of aggravation of *Vata* and *Pitta Dosha*, which disturbs normal spermatogenesis (*Shukra Uttpati*), thereby impairing normal semen parameters. [14] Classical management includes *snehana* (oleation), *Vamana* (emesis), *Virechana* (purgation), *Basti* (medicated enema) and *Shaman Aushadhi* (oral medication). [15] *Rasayana* and *Vajikarana* drugs should be administered after purifying the body, i.e., proper *Shodhana*, either by *Vamana* or *Virechana.* [16] *Go-Ghrita* has been used for *Snehapana* and has *Vrishya* (aphrodisiac), *Rasayana* (rejuvenation), *Vata* and *Pitta* pacifying, and digestive action. [17] It also contains vitamins A, D, E, and K. Vitamins A and E are antioxidants that assist

in protecting the body from oxidative damage. [18] Based on previous literature, *Virechana* is proposed to enhance the quality and quantity of *Shukra*. This may be because *Virechana Karma* increases the bioavailability of the drug by opening the channels, and by improving dietary absorption, it may lead to a rise in sperm quality and quantity. [17] *Gokshuradi Vati* contains *Gokshura*, *Ikshurak*, *Masha*, *Atmagupta*, and *Shatavari* in equal parts. [19] Based on previous literature, the following mechanisms have been proposed for *Gokshuradi Vati*. The ingredients of *Gokshuradi Vati* possess *Balya*, *Brimhana*, and *Vrishya* properties; the formulation may support *Shukra Dhatu* and *Shukravaha Srotas*. Oxidative stress, implicated in idiopathic oligozoospermia, can damage sperm DNA and impair spermatogenesis. Phytoconstituents such as saponins in *Gokshura*, shatavarins in *Shatavari*, and compounds in *Kapikacchu* have reported antioxidant properties that may reduce reactive oxygen species and protect sperm membrane integrity. [20, 21] Additionally, L-DOPA in *Kapikacchu* may influence the hypothalamic-pituitary-gonadal axis through dopamine-mediated modulation of GnRH, FSH, LH, and testosterone production. [22] These interventions used in this case series were multimodal, consisting of *Virechana* followed by oral administration of *Gokshuradi Vati*. Because of the combined nature of the protocol, the observed improvement in sperm concentration and FertiQoL scores cannot be attributed to any single component. The mechanisms discussed above are presented only as hypotheses based on previous literature. In idiopathic male infertility, chronic low-grade inflammation and stress are present. The adaptogenic and mild anti-inflammatory properties of the formulation are believed to help restore hormonal balance and reduce cortisol-mediated suppression of the reproductive system. The proposed *Samprapti Vighatana* of the adopted protocol is mentioned in Figure 4. Similar positive results have been reported in earlier studies, although important differences exist. Varsakiya et al. (2016) evaluated *Virechana* followed by *Ashwatha Phala Churna* in a larger sample and reported improvement in sperm concentration; however, the study lacked a control group and did not assess quality of life. Other published case reports and small series using *Virechana* with various *Vajikarana* formulations also described improvement in sperm concentration and motility, but most had very small sample sizes, shorter or poorly defined follow-up, and did not use a validated quality of life instrument. [23, 24] The present case series used a standardized protocol for *Virechana* followed by *Gokshuradi Vati*, reported individual patient trajectories, included a one-month follow-up, and assessed fertility-related quality of life with the validated FertiQoL questionnaire. Nevertheless, like the previous reports, the present study adds to this growing evidence by describing observed changes in semen analysis but also sustained benefits at follow-ups and fertility-related quality of life as measured by the FertiQoL score. These methodological similarities and differences should be considered when interpreting the findings.

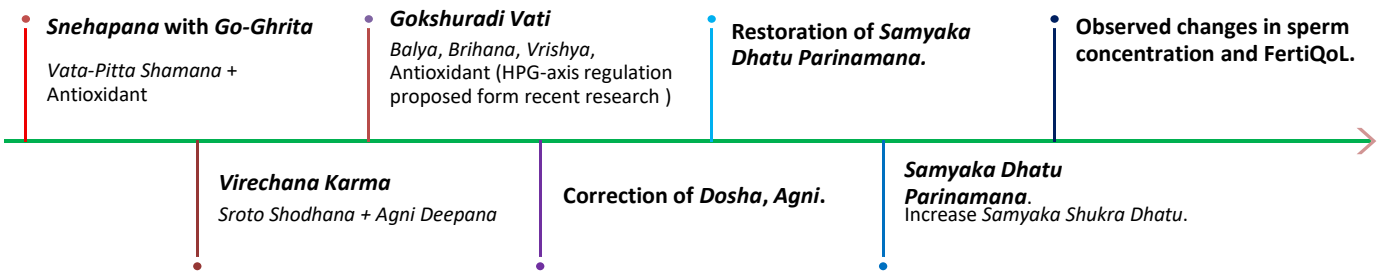


Figure 4*: Samprapti Vighatana.*

Strengths, limitations and future scope of study: Strengths: This prospective case series used a structured Ayurvedic protocol with standard semen analysis and a validated FertiQoL score. Detailed Ayurvedic diagnosis assessments

(*Ashtavidha* and *Dashavidha Pareeksha*) were performed. Good patient compliance and sperm concentration remained above baseline at follow-up, with no adverse events reported.

Limitations: Due to small sample size (n=6) and lack of a control group, this limits the generalizability of the findings. Intra-individual semen variability, lack of repeated pretreatment measurements, and potential lifestyle changes may have influenced the observed outcomes. The study was unblinded, and the multimodal intervention prevents attribution of effects to individual components. Hormonal parameters were assessed only at baseline, while pregnancy and live-birth outcomes were not evaluated. The one-month follow-up limits assessment of long-term sustainability. Advanced parameters such as sperm DNA fragmentation and oxidative stress markers were not assessed.

Future Scope: Multicentric randomized controlled trials with larger sample sizes, longer follow-up periods, and inclusion of pregnancy rates as an outcome are recommended. Future studies should incorporate advanced semen parameters (DNA fragmentation index); hormonal assessments are advised to establish the efficacy and safety of the Ayurvedic intervention in idiopathic oligozoospermia.

5. CONCLUSION:

In this six-patient prospective case series, *Virechana* followed by oral Ayurvedic medication was associated with improved sperm concentration and FertiQoL scores. Mean sperm concentration improved from 5.83 ± 3.06 million/mL at baseline to 25.83 ± 4.22 million/mL post-treatment and 27.67 ± 4.41 million/mL at follow-up. Mean FertiQoL score improved from 38.83 ± 4.88 to 60.17 ± 3.54. These preliminary findings should be interpreted cautiously due to methodological limitations, and larger controlled studies are needed to establish treatment efficacy.

Abbreviations:

H/O- History of; F/H- Family history; C/H- Childhood history; P/M/H- Past/medical history; NS- Not significant; S- Significant; LH- Luteinizing hormone; FSH- Follicle-stimulating hormone; ng/mL- nanograms per milliliter; mIU/mL- milli-International Unit per milliliter; g-gram; mL- milliliter.

Declaration of Patient Consent: The authors confirm that they have acquired a patient consent form, in which the patient or caregiver has granted permission for the publication of the case, including accompanying images and other clinical details, in the journal. The patient or caregiver acknowledges that their name and initials will not be disclosed, and sincere attempts will be undertaken to safeguard their identity. However, complete anonymity cannot be assured.

Patient Perspectives: The following statements are retrospective summaries prepared by the authors based on contemporaneous clinical notes and direct patient feedback recorded at follow-up visits. They are not verbatim quotations.

Case 1: The patient reported a noticeable improvement in sperm concentration and increased confidence after seeing the rise in sperm concentration. He expressed satisfaction with the holistic nature of the treatment.

Case 2: The participant shared that he felt more optimistic about fatherhood and experienced better emotional well-being. He valued the clear communication throughout the treatment course.

Case 3: Being the youngest participant, he reported relief from the psychological burden of infertility and appreciated the rapid improvement in semen parameters. He felt hopeful about conception in the near future.

Case 4: Despite starting with a very low sperm concentration, the participant was encouraged by the substantial improvement and reported enhanced vitality.

Case 5: The patient noted improved general health and renewed hope for parenthood. He was satisfied with the sustained result observed at follow-up.

Case 6: The participant reported increased self-confidence and a sense of empowerment after an increase in sperm concentration. He appreciated the comprehensive care.

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