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## AYURVEDIC MANAGEMENT OF TERATOZOOSPERMIA: A SINGLE CASE STUDY

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## **ABSTRACT**

Male infertility is a significant factor in over 40% of infertility cases. This research paper presents a case study of a 35-year-old Indian labourer working in a steel factory who reported symptoms of *Mlan-Shishnata* (loss of erection during intercourse), *Alpaharsha* (reduced sexual desire) along with a history of 4 years without a child. The patient was diagnosed as *Klaibya*, a condition characterised by male sexual dysfunction, with teratozoospermia, a condition involving abnormal sperm morphology. *Ayurvedic* therapy, specifically *Vajikaran chikitsa*, was administered to the patient following an *Abhyantar Shodhana* (bio-cleansing) procedure. The treatment protocol included *Koshtha-Shuddhi* (purgation) with the decoction of herbal medicines and *Yogbasti*.

Additionally, the patient received *Bastand Vrushya Basti* for two months and oral intake of specific *Ayurvedic* formulations for three months. The patient's progress was evaluated using the International Index of Erectile Function and semen analysis before and after three months of treatment. Semen analysis after treatment revealed that 63% of the patient's sperm exhibited normal morphology, indicating a substantial enhancement compared to the initial Teratozoospermia condition, along with significant improvement in erectile function, orgasmic function, Sexual desire, Intercourse satisfaction and Overall satisfaction of the individual demonstrating the successful use of *Ayurvedic* formulations in treating *Klaibya* w.s.r.t. teratozoospermia without any reported adverse side effects. This case study underscores the diverse range of *Ayurvedic* therapy options available for addressing male infertility disorders.

**Keywords:** Male infertility, Teratozoospermia, *Vajikaran chikitsa*, *Vrushya basti*, *Shodhana*, IIEF, Semen analysis.

#### INTRODUCTION

According to Acharya Charaka, Klaibya is when a person is unfit to abide with a submissive, beloved mate due to the looseness of his penis, indeed though there is a constant, strong desire to do so, or if sometimes attempts to do a sexual act, he feels breathless, fainting with gushing perspiration. All attempts fail without interjection due to flaccidity of the penis. Sexual dysfunction is a significant concern that affects individuals worldwide, leading to emotional distress and strained relationships. One such condition is Klaibya, as described by Acharya Charaka, where an individual is unable to engage in sexual intercourse with a willing partner due to the flaccidity of the penis, despite having a strong desire to do so. Symptoms of Klaibya include breathlessness, fainting, profuse perspiration, and failed attempts at sexual activity. Teratozoospermia represents a heterogeneous group comprising a broad spectrum of abnormal sperm phenotypes that affect the head, neck, midsection, and tail, alone or simultaneously. These abnormalities significantly reduce the fertility potential of a man. According to the World Health Organization (WHO), a man with more than 96% abnormal sperm is classified as teratozoospermic.<sup>2</sup> A man with this condition decreases the potential of fertilising a female's egg, causing infertility. The impact of Klaibya and teratozoospermia on an individual's reproductive health and overall well-being makes looking for effective treatment options essential. In Ayurvedic texts, various therapies, including Snehana (oleation), Vamana (emesis), Virechana (purgation), Niruha (medicated enema with decoction), Anuvasan (medicated enema with Sneha), and Shamana Aushadhi (palliative therapy) have been mentioned for the management of Klaibya. Vajikaran chikitsa, a specialised branch of Ayurveda focused on enhancing sexual function and fertility, is of particular importance.<sup>4</sup> Hence, in the present study, Shodhana followed by Vajikaran chikitsa and Shamana, was given to the patient. The selected Shamana Aushadhi were

readily available to the patient, ensuring ease of administration. Understanding the effectiveness of *Ayurvedic* interventions in managing *Klaibya* and teratozoospermia can provide valuable insights for healthcare professionals and individuals seeking alternative treatments for these conditions. By exploring the potential benefits of traditional therapies, this research contributes to the growing body of knowledge on holistic approaches to sexual health and fertility.

#### **CASE REPORT**

A 35-year-old male patient sought medical attention due to Mlan-Shishnata (loss of erection during intercourse) and Alpaharsha (reduced sexual desire). The patient also expressed concerns about not being able to conceive a child for the past four years. The patient, an Indian labourer working in a steel factory, did not have a history of systemic disorders such as hypertension or diabetes mellitus and was not taking any medications. Physical examination revealed normal positioning of the testes, and the rest of the physical examination was unremarkable (Table I). Initial assessment of the patient's female partner indicated regular ovulatory cycles and no apparent issues with her endocrine profile or the patency of her fallopian tubes. The patient denied any history suggestive of sexually transmitted diseases, mumps, tuberculosis, filariasis, epididymal-orchitis, herniorrhaphy/ herniotomy, chronic persistent genital infection, Paraparesis, or exposure to gonadotropins. However, semen analysis revealed the presence of Teratozoospermia. Unfortunately, the patient could not undergo further investigations, such as testing for anti-sperm antibodies, due to financial constraints. Nevertheless, the combination of the patient's symptoms, physical examination findings and the presence of Teratozoospermia highlights the need for a comprehensive evaluation and appropriate management to address the underlying causes of the couple's infertility.

#### On examination: -

Clinical examination revealed no abnormality (physical and systemic). Table I shows the details of the patient's assessment.

Table I: Physical/local examination of the patient

On examination	Observation	
Pubic hair distribution	Normal	
Examination of penis		
Texture of skin	Normal	
Body / shaft	Normal	
Prepuce	Normal	
Glans	Normal	
External urethral meatus	Normal	
<b>Examination Of Scrotum</b>	Right	Left
Pigmentation	Dark brown	Dark brown
Temperature	Normal	Normal
Rugae	Present	Present
Scars	No	No
Swellings	No	No
Examination of testes		
Position	Normal	Normal
Size	Normal	Normal
Surface	Smooth	Smooth
Consistency	Firm	Firm
Borders	Regular	Regular
Examination of epididymis	Palpable without swelling	
Examination of vas deferens	Palpable	
Examination of spermatic cord	Normal	
Examination of prostrate (P/R)	Normal	

## **Systemic examination: -**

The patient was Pitta predominant, having a good appetite and working in constant heat.

Other systemic examinations were suggestive of *Pitta* and *Vata vaigunya*.

Vitals were within limits and non-significant.

### ASSESSMENT CRITERIA

The patient was assessed based on the International Index of Erectile Function and semen analysis before the start of treatment and three months after the treatment. Table II and Table III show details of the investigations carried out before and after the treatment.

#### TREATMENT REGIMEN

- 1. *Pachana*: The patient was prescribed *Avipattikar churna* at a dosage of 5gm twice daily before food for five days to aid digestion.
- 2. Snehpaan (Internal oleation): Panchtikta Ghruta was administered in increasing amounts until Samyak Snighdha Lakshana (specific signs of adequate oleation) were observed over five days.
- 3. *Sarvang Snehana Swedana*: Full body oleation and sudation were performed on the *Vishram Kala* (rest period) for two days and on the day of *Virechana* (purgation).
- 4. Virechana: The patient underwent Virechana using a decoction of Trivrutt, Kutaki, Aragvadha, and Haritaki 100ml mixed with 50ml Eranda

Sneha (castor oil) on an empty stomach at 7.00 am. *Mrudvika Phant* was used as *virechanopag*. The patient reported ten bowel movements (Vegas) during the day. *Sansarjana krama* (a specific post-purification diet) was given for five days.

- 5. Vasti: Yogavasti Kram (medicated enema) was administered after Virechana. On the 9th day after Virechana, Anuvasan Vasti (medicated oil enema) with Sahachar Taila (medicated oil) was given, followed by Niruha Vasti (medicated decoction enema) with Charakokta Shukrashodhan Gana Dravyas.
- 6. Vajikaran Chikitsa: After the Shodhan treatment, Bastand Vrushya Vasti (a specific form of enema) was administered for seven days and repeated for two cycles over two consecutive months. Sahachar Taila Anuvasan Vasti was used if required.

In addition to the above procedures, the patient was prescribed oral medications for three months:

- 1. *Kushmand Avleha*: 1 teaspoon twice a day before food.
- 2. *Pushpadhanva Ras*: 1 tablet after food, taken with milk.
- 3. *Tab Muslijeet*: 1 tablet three times a day for three months.

The prescribed medicines, *Kushmand Avleha*, *Pushpadhanva Ras* (*Unjha Pharmacy*) and *Tab Muslijeet* (*Kalleshwar Ayurveda Care*), were obtained from external sources. All medications were administered for three months, and no adverse drug reactions were reported during the treatment period.

#### **OBSERVATION AND RESULT:**

The results of this case study demonstrate the efficacy of *Ayurvedic* treatment in addressing *Klaibya* with teratozoospermia. The patient underwent a comprehensive treatment plan that included *Shodhan* procedures, *Vajikaran* therapy and the administration of specific *Ayurvedic* medications. (Table II & table III)

Table II: Semen analysis Report			
Seminal parameters	Before treatment	After treatment	
Volume	1.2 ml	2 ml	
PH	7.8	7.5	
Liquefaction time	15 minutes	15 minutes	
Total sperm count	60 million/ejaculate	160 million/ejaculate	
Morphology:	1%	63%	
Normal form	99%	37%	
Abnormal form			
Head defects	74%	30%	
Mid piece defects	15%	30%	
Tail defects	10%	40%	
Semen analysis	Teratozoospermia	Normal	
USG abdomen and pelvis	NAD		

Table III : International Index of Erectile Function Report <sup>5</sup>				
	Before treatment	After treatment		
<b>Erectile function</b>	12	24		
Orgasmic function	4	8		
Sexual desire	4	7		
Intercourse satisfaction	5	10		
Overall satisfaction	4	8		

#### DISCUSSION

Klaibya is the term used in Ayurveda to describe sexual dysfunction or impotence in men. The word "Klaibya" is derived from the Sanskrit language, where "Klaibya" means "inability" or "impotence." In Ayurveda, sexual health is considered an essential aspect of overall well-being. Klaibya is believed to arise due to an imbalance of Doshas, the three fundamental energies or forces that govern the body and mind. According to Ayurvedic principles, Klaibya can be caused by an imbalance in the Vata Dosha, representing air and ether elements. Teratozoospermia, characterised by abnormal sperm morphology, is a well-known cause of male infertility. However, there is a lack of reported or documented cases demonstrating the effectiveness of Ayurvedic treatment in such cases. Ancient Ayurvedic texts, such as those by Acharya Kashyap, highlight the significance of maintaining the health of sperm for the overall health of the progeny. Kashyap emphasises the role of Virechana (purgation) for Shodhan (bio-cleansing) of the Dushit Beej (sperm).<sup>6</sup> The rationale behind this approach is to eliminate toxins and balance the Pitta Dosha, which is often associated with the vitiation of Shukra (sperm). Based on the principles of Ayurveda and the diagnosis of Klaibya along with evidence of Teratozoospermia and taking into consideration the patient's Prakriti (individual constitution) and the predominance of vitiated Dosha (Pitta Pradhan Vataanubandhi), a sequential approach of Shodhan followed by Vajikaran treatment was employed. Vajikaran, a specialised branch of Ayurveda, focuses on improving the reproductive system and enhancing sexual functions. Its primary objective is to minimise Shukra dushti (disturbances in semen) and promote the healthy formation of progeny. Vajikaran therapies can be categorised into three types: Shukra Karaka (enhancing sperm count/generation), Shukra Rechaka (facilitating ejaculation of seminal fluid), and Shukra Rechaka & Karaka (serving both purposes). In this case study, these principles of Vajikaran were utilised in the patient's treatment. The aim was to address the abnormal sperm morphology and improve the patient's fertility potential. The results obtained from

the study on Ayurvedic management of Klaibya (impotence) based on the data (Table III) indicate significant improvement in erectile function, orgasmic function, Sexual desire, Intercourse satisfaction and Overall satisfaction of the individual. Remarkably, post-treatment semen analysis revealed a significant improvement, with 63% of normal sperm morphology, indicating the effectiveness of the Ayurvedic treatment approach. Additionally, specific Ayurvedic medications were prescribed to support the treatment. Kushmand valiha, administered before meals, possesses Vrushva (aphrodisiac), Punarnavkar (rejuvenating) and Rasayana (rejuvenating) properties, as mentioned in Bhaishajya Ratnavali. Pushpadhanva ras helps pacify the Vata and Pitta Doshas, which are often associated with male reproductive health issues. Tab Muslijeet (Safed Musli, Krunch Beej, Talamkhana, Utangan Beej, Vrudhadhara Beej, Shuddha Shilajeet) was also included in the treatment regimen. It is indicated explicitly in premature ejaculation, impotence, and erectile dysfunction and helps in improving overall reproductive health and semen quality. Acharya Charak suggests that Vasti Chikitsa plays an essential role in treating Vata Dosha, which is the primary cause of the reduction of the quality of semen. Vrushya Vasti (Vajikar dravya sidhha ksheer basti) exhibits Rasayan (rejuvenating) effects and can be safely administered for extended periods to promote vitality and longevity without adverse effects, supporting overall well-being. Ksheer was chosen as it is said to be Sadyashukrajanan. Using Samanya Vishesh Siddhant, Bastand was used in Vasti along with Vajikar Dravyas. Ashvagandha stimulates semen production and increases libido. Kraunchbeej stimulates semen production with improvement in sustenance and ejaculatory performance. Bala improves sustenance and ejaculatory performance.<sup>7</sup> It is important to note that these findings are based on a single case study, and further research is required to establish the generalizability and efficacy of Ayurvedic treatments for Klaibya and teratozoospermia. Controlled studies with larger sample sizes are needed to validate these findings and provide more

evidence regarding the effectiveness of *Ayurveda* in the management of male infertility.

#### CONCLUSION

The utilisation of *Vajikaran* principles, along with bio-cleansing through *Virechan* and the administration of targeted medications, proved effective in the management of *Klaibya* with Teratozoospermia not only an improvement in sexual functional parameters but also in increasing the quality and quantity of semen. Such encouraging results offer hope to many who are suffering from teratozoospermia and instil confidence among new *Ayurvedic* physicians in handling male infertility without surgical interventions and managing it with simple medication.

## **Declaration of patient consent -**

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has consented for his clinical information to be reported in the journal. The patients understand that their names and initials will not be published, and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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