

## Therapeutic Role of Siddha Formulations in Enhancing Seminal Parameters: A Case-Based Evaluation

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### Abstract:

In our country, Male infertility is one of the common problems in recent genera, it can be defined as an inability to induce conception, due to stress, sedentary work habits, are huge cause of male infertility. A Reduced sperm density (oligozoospermia) is often accompanied by poor motility and morphology reflecting qualitative and quantitative defects in spermatogenesis. Many reproductive and non-reproductive disorders and treatments may be responsible, but most cases unexplained. The objective of the case study is to use siddha treatment to increase the sperm count for a healthy progeny. The married couple was facing infertility issue for last three years. patient was treated with siddha medicine and kept on strict diet monitoring for last three months results was counted in terms of improved total sperm count. No any side effects were mentioned during the treatment period. Other pathological findings also improved, were also found to be healthy and normal for normal fertilization. The results of the case report, siddha treatment helpful to improve the motility, sperm count, is proved to be effective in the male infertility associated with oligozoospermia.

**Key words:** Male infertility, oligozoospermia, Siddha medicine

### Introduction:

The prevalence of infertility in India during 2019–2020 was reported as 18.7 per 1000 women among those who had been married for five years and were currently in union<sup>1</sup>. In Tamil Nadu, the prevalence of infertility was 24.8%, according to data from the National Family Health Survey (NFHS-5)<sup>2</sup>.

Infertility is defined as the inability to conceive after 12 months of regular, unprotected sexual intercourse. Male infertility is commonly attributed to abnormalities in semen parameters such as reduced sperm count, poor motility, and altered morphology, as well as psychological factors, lifestyle changes, systemic illnesses, and stress. Sterility and impotence in males are often associated with pathological alterations in the seminiferous epithelium, leading to decreased spermatogenesis<sup>3</sup>.

According to the Siddha system of medicine, *Sukkilam* (semen) is the seventh of the seven physical constituents (*Udal Thathukkal*) and is responsible for reproduction. Disease occurs due to derangement of the three humors (*Vali, Azhal, and Iyyam*) and disturbances in the seven physical constituents, often influenced by improper diet and lifestyle practices<sup>4</sup>.

In Siddha literature, infertility is termed *Maaladu*, a condition in which a man or woman becomes incapable of producing offspring due to defects in semen or reproductive function. The sage *Yugi Muni* classified diseases into 4448 types, among which *Aan Maladu* (male infertility) is included. According to Siddha concepts, during conception, the eleven thathus—

five Kanmendriyam (organs of action), five Gnanendriyam (sense organs), and Manam (mind)—act in coordination to facilitate successful fertilization. Abanan Vayu is said to protect the zygote, while Pranan Vayu accompanies the spermatozoa into the uterine cavity and supports embryonic development<sup>5</sup>.

Furthermore, classical Siddha texts describe certain characteristics of defective semen in Aan Maladu, such as absence of sweetness and lack of buoyancy in water.

In the Siddha system, the human body is constituted of 96 fundamental principles (Tattvas), encompassing physical, physiological, psychological, and intellectual aspects. Among these, the Kanmendriyam (organs of action) include Karuvai (the reproductive organ). In male infertility, Karuvai—being a motor organ under Kanmendriyam—is considered to be affected, leading to impairment in reproductive function<sup>6</sup>.

### **Case study:**

A 38-year-old man came to our clinic with a history of primary infertility for the past 12 years. He had been married for 12 years, and despite regular unprotected marital life, his wife had not conceived. The couple had a strong desire to have a child, and the long wait had caused them considerable emotional stress.

On examination, the patient appeared healthy. His general and systemic parameters were within normal limits. He did not have any history of smoking or alcohol consumption. There was no previous history of tuberculosis, long-term medication use, scrotal injury, or surgical procedures.

On further enquiry, it was noted that he had been working for several years in a copper-based industrial environment, suggesting possible long-term occupational exposure.

The female partner underwent a complete gynecological and endocrinological evaluation. Her hormonal levels, ultrasound findings, and other investigations were all within normal limits, thereby ruling out female factor infertility.

Semen analysis of the male partner revealed severe oligozoospermia, with a sperm count of 2 million/ml.

Before approaching Siddha treatment, the couple had tried various treatment options, including conventional and complementary therapies, but without significant improvement in semen parameters or successful conception.

They then opted for Siddha management. The patient was treated with a combination of appropriate Siddha formulations along with a specific dietary regimen (Pathiyam) for three months. The treatment was followed regularly and sincerely.

After completion of the treatment course, follow-up semen analysis showed marked improvement in semen parameters. Soon after, the couple achieved natural conception, bringing immense relief and happiness to them, and confirming the positive outcome of the Siddha intervention.

Table1: Treatment Given for the patient

S.no	Name of the medicine	Form	Dosage	Route of Administration	Adjuvant	Mode of Action
1.	Punaikali vidhai chooranam	Chooranma (Powder)	½ tea spoon	Oral	Lukewarm water	Narambu uramaki(Nervine tonic), Kamamperuki(Aphrodisiac)
2.	Otithazh thamrai	Chooranam (Powder)	½ tea spoon	Oral	Lukewarm water	Bozhankari(Nutritive) Echaiperuki(Aphrodisiac)
3.	Thaneervittan	Chooranam (Powder)	½ tea spoon	Oral	Lukewarm water	Udaluramaki(Nutritive) Kamamperuki(Aphrodisiac)
4.	Nilapanaikizhngu	Chooranam (Powder)	½ tea spoon	Oral	Lukewarm water	Uramaki(Tonic)
5	Koraikizhangu	Chooranam (Powder)	½ tea spoon	Oral	Lukewarm water	Uramaki(Tonic) Ruthuundanki(Emenagogue)
5	Neermulli chooranam	Chooranam (Powder)	½ tea spoon	Oral	Lukewarm water	Kulirchiundanki(Refrigerent) Uramakki(Tonic) Kamamperuki(Aphrodisiac)

Table :2 Semen Analysis

Test	Before Treatment	After Treatment
Method	Masturbation	Masturbation
Abstinence	4 days	3 days
Collected at	11.25A.M	11.45A.M
Examined at	11.45A.M	12.05P.M
<b>Physical Examination</b>		
Quantity	2.00ml	2.5 ml
Colour	Grey white	Grey White
Odour	Normal	Normal
Viscosity	Moderately Viscous	Moderately Viscous
Liquefaction	Within 20 minutes	Within 25 minutes
Reaction (PH)	Alkaline	Alkaline
<b>Microscopic Examination</b>		
Volume	1.5ml	4.5ml
Rapid progressive	Nil	20%
Sluggish progressive	5%	20%
Non progressive	95%	15%
Non motile	90%	45%
Normal	Nil	50%
Dead	95%	20%

## Discussion:

Aan maladu is vitiated both qualitative and quantitative impairment is seen. To find out effective remedy to increases the sperm count by using the medicine to manage this condition. *Punaikali vithai chooranam* (*Mucuna pruriens*) contains L-Dopa, a precursor to dopamine, which regulates hormonal balanced stimulates gonadotropin release<sup>8</sup>. *Orithazh thamrai* (*Nelumbo nucifera/Lotus stamens*) chooranam rich in flavonoids and antioxidants, which reduce oxidative stress in reproductive tissues. It supports blood circulation to pelvic organs, improving nutrient delivery to testes. Traditionally used for aphrodisiac and rejuvenating effects, enhancing vitality<sup>9</sup>. Thaneervittan nei (*Hydrilla verticillata/Aquatic herb*) provides minerals like zinc and magnesium, essential for sperm production. Zinc is directly linked to sperm count and motility. It improves hydration and balances *azhal* and *vali kutram* supporting reproductive health<sup>10</sup>. *Nilapanai kizhangu* (*Curculigo orchioides / Black Musli*) known as a potent aphrodisiac and spermatogenic herb. It stimulates leyding cells in testes to produce testosterone and it enhances seminal volume and sperm density. The saponins and glycosides that improve cell proliferation in germinal epithelium<sup>11</sup>.

*Koraikizhangu* acts as a tonic and anti inflammatory agent. It improves digestion and nutrient assimilation indirectly supporting spermatogenesis. Traditionally used to balance *vali kutram* which are linked to infertility in siddha theory<sup>12</sup>.

*Neermulli chooranam* (*Aerva lanata*) it helps to reduce the seminal tract infection, improving sperm transport, and it supports healthy seminal plasma composition, aiding motility and viability<sup>13</sup>.

The siddha formulations employed in this study act through multiple complementary mechanisms to improve seminal parameters. Sperm count is enhanced by stimulating spermatogenesis via testosterone and gonadotropin regulation, particularly with *Mucuna pruriens* and *Curculigo orchioides*. Sperm motility improves as antioxidants present in *Mucuna* and *Lotus* protect mitochondrial function, thereby increasing energy availability and forward progression. seminal volume is augmented through accessory gland stimulation and improved hydration and mineral supply, supported by *Hydrilla* and *curculigo*. Progressive motility is further promoted by reducing oxidative stress and optimizing seminal plasma composition, with notable contributions from *Mucuna* and *Aerva lanata*. Finally, new cell production is facilitated by germinal epithelium stimulation, Leyding cell activation and improved nutrient assimilation, primarily through *curculigo* and *Mucuna*. collectively these actions explain the observed improvements in sperm count, motility, volume, viability and overall fertility potential.

## Results:

The total duration of treatment was three months. At baseline, seminal analysis revealed a markedly compromised profile: seminal volume was 1.5 ml, with no rapid progressive motility, 5% sluggish progressive motility, 95% non-progressive sperm, and 90% immotile sperm. Morphological assessment showed no normal sperm, while 95% were dead.

Following treatment, significant improvements were observed. Seminal volume increased to 4.5 ml. Rapid progressive motility emerged at 20%, with sluggish progressive motility also at 20%. Non-progressive sperm decreased to 15%, and immotile sperm reduced to 45%.

Morphology showed a notable improvement, with 50% normal sperm identified, while dead sperm decreased to 20%.

These findings demonstrate a substantial enhancement in seminal parameters, including volume, motility, viability, and morphology, indicating improved fertility potential after Siddha therapeutic intervention.

The observed improvements in seminal parameters in this case are consistent with earlier reports. Eswari et al. (2025) documented similar recovery in sperm motility and morphology following Siddha therapy<sup>14</sup>. Elavarasan et al. (2023) reviewed Siddha classical texts and emphasized the role of formulations containing *Mucuna pruriens* and *Curculigo orchioides* in male infertility management. Modern pharmacological studies also support these findings;<sup>15</sup> Shukla et al. (2009) demonstrated that *Mucuna pruriens* enhances spermatogenesis via hypothalamic–pituitary–gonadal axis regulation<sup>8</sup>, while Patel et al. (2011) highlighted the spermatogenic potential of *Curculigo orchioides*. Together, these studies corroborate the efficacy of Siddha medicine in improving sperm count, motility, and viability, aligning with the present case outcomes<sup>11</sup>.

### **Conclusion:**

The present case highlights the therapeutic potential of siddha formulations in the management of male infertility. After undergoing siddha treatment or a period of three months, the patient showed significant improvement in semen parameters. The treatment proved to be effective and this encouraging outcome suggests that siddha medicine may offer a promising approach in managing certain androgen related reproductive problems. However, to further validate and standardize siddha treatment protocols for male infertility, well designed clinical studies and Randomized controlled trials(RCT) are essential.

Such scientific investigations would help strengthen the evidence based and support the integration of siddha intervention in the broader management of male infertility.

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