



## PANCHAKARMA- A RAY OF HOPE IN THE MANAGEMENT OF MALE INFERTILITY

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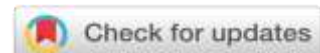
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### ABSTRACT

Infertility implies apparent failure to achieve conception by a couple of mature age, having normal coitus, during appropriate period of menstrual cycle, regularly, atleast for one year. It develops due to faults in either of the partner or both of them. Globally, infertility affects approximately 13% to 15% of all couples in which 20% to 30% of infertility cases, males can be solely responsible. In ayurveda acharyas explained infertility under the spectrum of *klaibya* and *vandhyatwa*. *Klaibya* is a condition where a person's inability to perform sexual act due to difficulty in erection, non erection or flacidity of penis associated with *swasa*, *ati sweda*, which can be corelated to erectile dysfunction. is a type of infertility where there is defect in the semen due to vitiated *vata dosha*. Here is a single case study of erectile dysfunction with *teratozoospermia* with significant improvement in the condition. *Panchakarma* modalities has given a ray of hope in such difficult cases.

**Keywords:** *Klaibya*, Erectile dysfunction, *Teretozospermia*, *Virechana*, *Basti*

### INTRODUCTION

Infertility is usually defined as the inability of a couple to conceive even after one year of unprotected, frequent sexual intercourse.<sup>1</sup> Globally, infertility af-

fects approximately 13% to 15% of all couples, while one in five is unable to achieve pregnancy in the first year. In 20% to 30% of infertility cases, males can be

solely responsible, with an overall contribution to infertility in couples of about 50%.<sup>2</sup>

*Acharya Charaka* in *chikitsa sthana*, *yonivya* path *chikitsa* mentioned in detail about *klaibya*.

*Klaibya* is caused due to defect in *shukra*.<sup>3</sup> *Klaibya* is defined as sexual dysfunction characterized by the inability of a man to perform the 'sexual act' or incomplete performance which leaves the female partner partially or totally dissatisfied. In other words, *Klaibya* is also defined as inability to attain and keep sufficient rigid (firm) erection which is very essential during sexual intercourse for his sexual needs or the needs of his female partner.<sup>4</sup> *Chakrapani* narrows the definition of *Klaibya* which means erectile dysfunction only.<sup>5</sup>

#### **SAMANYA KLAIBYA LAKSHANA<sup>6</sup>**

A person even on having a strong sexual.

- Unable to perform sexual act with a beloved, willing and co-operative partner, he cannot perform coitus with her due to lack of his penis erection or lack of penile rigidity.
- Even if he manages to have an erection,
- Along with anxiety, dyspnoea (difficulty during breathing) and perspiration (excessive sweating), tiredness.

#### **TYPES OF KLAIBYA<sup>7</sup>**

Various types of *klaibya* have been explained in the classical texts based on their causes. *Acharya Charaka* has explained four types of *Klaibya* as follows-

- 1) *Beejopaghaataja Klaibya*
- 2) *Dhwajopaghataja Klaibya*
- 3) *Shukrakshayaja Klaibya*
- 4) *Jarasambhavaj Klaibya*

#### **PATHOLOGY OF MALE INFERTILITY<sup>8</sup>**

In one third of cases male is directly responsible for infertility whereas in one third of cases both are at fault.

The factors involved includes:

- 1] disorders of spermatogenesis
- 2] obstruction of the efferent duct
- 3] disorders of sperm motility
- 4] sexual dysfunction
- 5] some cases it is unexplained

For adequate spermatogenesis, the testicle must lie in its correct position in the scrotum, where the temperature is slightly cooler than elsewhere in the body. The factors which raise the scrotal temperature can adversely influence spermatogenesis, e.g. the occupation of men who work as stokers or in blast furnaces and are subjected to excessive heat, the wearing of a tight scrotal support and the presence of a varicocele. The ectopic or undescended testicle provides the best example of the adverse effect of temperature on spermatogenesis. The history of excessive smoking, indulging in alcohol consumption, and chewing tobacco and gutka may also suggest poor spermatogenesis.

The collecting apparatus of the epididymis may be damaged by trauma or inflammatory disease, notably gonorrhoea or tuberculosis. The vasa deferentia may be occluded, and this is especially to be suspected if there is a herniorrhaphy.

Chronic inflammatory disease of the prostate and seminal vesicle may be associated with male infertility. Congenital lesions of the penile urethra such as hypospadias provide an obvious mechanical explanation for imperfect insemination.

Accidental or operative trauma, e.g. blow on the testicle with haematoma formation and subsequent atrophy, or operation for hernia, varicocele or hydrocele may suggest a degenerative lesion of the testes or obstruction to the vasa.

A history of mumps, venereal disease, diabetes, thyroid or tuberculosis may suggest testicular atrophy or obstruction. About 1-2% males suffer from genetic defects like Klinefelter's syndrome with 47 XXY chromosomes.

#### **AETIOLOGICAL CLASSIFICATION<sup>9</sup>**

1. Genetic-abnormal Y chromosome and XXY in Klinefelter's syndrome.

2. Disorders of spermatogenesis.

Hormonal (pre-testicular):

- Hypothalamic disorder.
- Pituitary secretion of FSH, LH.
- Hyperprolactinaemia causes impotence or diminished libido.

- Hypothyroidism, adrenal gland disorder and diabetes

Primary testicular disorders (testicular):

- Idiopathic, varicocele.
- Chromosomal defect, i.e. Klinefelter's syndrome
- Cryptorchism.
- Drugs, radiation, calcium channel blocker, anti-convulsants, antihypertensives, spironolactone and cimetidine.
- Orchitis (traumatic, mumps, TB, gonorrhoea).
- Chronic illness.
- Immunological disorders (5%).
- Immotility due to absence of dynein arms. Absent cilia in Kartagener's syndrome (15%).

3. Duct obstruction (post-testicular).

- Congenital absence, inflammatory block (gonococcal, tubercular), surgical trauma, Young's syndrome (inspissated mucus) associated with sinusitis and bronchiectasis, chlamydial infection.

4. Accessory gland disorders.

- Prostatitis, vesiculitis and congenital absence of vasa in cystic fibrosis.

5. Disorders of sperms and vesicular fluid:

- Sperm antibodies and low fructose in seminal plasma. Immotile cilia syndrome (Kartagener's syndrome).
- Sperm acrosome defect.
- Zona pellucida binding defect.
- Zona penetration defect.
- Oocyte fusion defect.

6. Sexual dysfunctions:

- Low-frequency coitus-wrong time.
- Impotence, hypospadias, decreased libido.
- Premature ejaculation.
- Retrograde ejaculation.

7. Psychological and environmental factors like smoking, alcohol consumption, tobacco chewing, diabetes and drugs-antihypertensive, antipsychotics, cimetidine, sex steroids (excess testosterone and anabolic used by athletes) chemotherapy, beta-blockers, spironolactone, oestrogen.

## TERATOSPERMIA

Teratospermia is a condition in which there is an increase in the percentage of sperm with abnormal forms in semen. Normally, normal sperm with strict criteria in semen should be at least 4%.

## ERECTILE DYSFUNCTION

Erectile dysfunction (impotence) occurs when a man can no longer get or keep an erection firm enough for sexual intercourse.

Physical causes of erectile dysfunction

Common causes include.

- Heart disease
- Clogged blood vessels (atherosclerosis)
- High cholesterol
- High blood pressure
- Diabetes
- Obesity
- Metabolic syndrome, a condition
- increased blood pressure,
- high insulin levels, body fat around the waist
- and high cholesterol
- Parkinson's disease
- Multiple sclerosis
- Low testosterone
- Peyronie's disease, development of scar tissue inside the penis.

Psychological causes of erectile dysfunction

- depression
- anxiety
- other mental health disorders
- stress
- Certain prescription medications
- Tobacco use

## INTERVENTION

Conventional treatment includes hormonal therapy i.e. supplementing gonadotropins in case of secondary hypogonadism. In vitro techniques in patients with primary testicular failure and disorders of sperm transport. In case of severe sperm defect assisted reproductive technologies like in vitro fertilization, ICSI is often the treatment of choice which has very expensive and less successful rates.

Ayurveda gives a ray of hope in treating infertility patients through various *panchakarma* modalities. Detoxification therapies like *virechana*, *ksheera basti*, *vrushya basti*, *uttara basti* is employed in the treatment of infertility, along with *rasayana* and *vajeekarana chikitsa*.<sup>10</sup>

Here is a single case study of *klaibya* suffering from erectile dysfunction with teratozoospermia treated with *virechana*, a body detox therapy followed by *basti karma* showing significant improvement in the condition. *Panchakarma* modalities has given a ray of hope in such difficult cases.

### CASE REPORT

#### CHIEF COMPLAINT

C/O No issues for 9 years of active married life.

#### ASSOCIATED COMPLAINT

- Associated with Excessive sweating and tiredness during coitus.
- difficulty in maintaining erection.
- premature ejaculation
- Generalised weakness and hard stools since 1 and half years.

#### PAST HISTORY

- Patient has K/C of Diabetes Mellitus for 1 year, not on any medication and not a known case of Hypertension.

#### HISTORY OF PRESENT ILLNESS

- A male patient of 34 years old, married for 9 years presented with desire to get children with normal secondary sexual characteristics.

#### PERSONAL HISTORY

Table 01: showing subject's personal history.

Name- XYZ	Sleep – Sound
Age – 34 years	Bowel habit – Regular, hard stool
Sex – male	Appetite- Good
Marital status – Married	Weight -65 kg
Occupation – IT Employ	Height – 182cm
<i>Bala – Madhyamika</i>	Addiction- Alcohol consumption

#### ASTASTHANA PAREEKSH

Table 02: showing asta sthana pareeksha.

• <i>Nadi - vataja nadi</i> , 73/min	• <i>Shabdha- Prakruta</i>
• <i>Mala – baddha</i> , 1time/day	• <i>Sparsha – Anushna Sheeta</i>
• <i>Mutra -Prakruta</i> 4-5 times/day	• <i>Drik – Prakruta</i>

- associated with difficulty in maintaining erection and premature ejaculation, excessive sweating and tiredness during coitus since one and half years.

#### MARITAL HISTORY

- couple got married in the year 2013 and after 2 years of active married life wife got conceived in the year 2015 and gave birth to a male child which died after one day of birth. In the year 2018 she conceived again and was aborted in the 2 nd month.
- In the year 2021 they planned for IVF but was not successful so for better management came to our hospital.

#### OCCUPATIONAL HISTORY:

- Patient is an IT employ.
- 10 – 12 hours of work duration
- AC room
- The nature of work is stressful.

#### FAMILY HISTORY :

- Mother was diabetic.
- Nothing significant

#### HABIT:

- Alcohol consumption 2-3 time per month[180ml]
- Food habit – irregular timings of food intake and consuming more oily and fried foods.

No physical exercise.

• Jihva – lipta	• Akriti - Prakruta
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### DASHAVIDHA PARIKSHA

Table no 3: showing dashavidha pariksha.

• Prakriti- Kaphapitta	• Samhanana- Madhyama
• Hetu- chinta, guru ruksha ahara sevana, madhya sevana	• Pramana – Madhyama
• Dosha- tridosha	• Satmya- Sarvarasa
• Dushya- rasa, sukra	• Ahara Shakthi
	• Abhyavarana Shakthi -Madhyama
	• Jarana Shakthi- Madhyama
• Desha- Anupa	• Vyayama shakthi- Madhayama
• Sattva- Madhyama	• Vaya – Madhyama/34 years
• Sara- Madhyama	• Bala-Madhyama

### NIDANA PANCHAKA

Table no 4 : showing nidana panchaka.

Nidana	chinta, shoka, guru ruksha ahara, Madhya sevana
Poorva Rupa	Nothing specific
Rupa	difficulty in maintaining erection, premature ejaculation, excessive sweating, excessive tiredness, generalised weakness and hard stools
Upashya & Anupashya	Nothing specific

### SAMPRAPTI GHATAKA

Table 05: showing samprapti ghataka.

Dosha	Tridosha
Dushya	Rasa, shukra
Agni	Jataraagni
Agni dhushti	Vishamagni
Srotras	Rasavaha, Shukravaha
Srotodushti	Vimargagamana
Udhbhavastana	Aama-pakvashaya
Sancharastana	Sarvashareera
Vyaktastana	vrushana, medra, shukra
Adhiatana	vrushana, medra, shukra
Rogamarga	Madhyama
Sadhyaasadhyata	Krichra sadhya

### SYSTEMIC EXAMINATION

CNS – Conscious and oriented to time, place, person

CVS- S1 and S2 heard, no added sounds.

R S – NVBS heard, no added sounds heard

GIT- soft and non-tender  
 Hight- 183cm  
 Weight- 65 Kg  
 BMI – 19.4

**INVESTIGATIONS**

**SEMEN ANALYSIS**

- MACROSCOPIC EXAMINATION:
- VOLUME-2.5 ml [1.5ml or more]
- Colour – grey opalescent
- pH-alkaline
- Viscosity- normal
- Liquefaction time 30 min [<30 min]

**MICROSCOPIC EXAMINATION:**

- Sperm count-67 millions/ml [>15 million/ml]
- Sperm motility- 61% [progressive 41% non-progressive 20% non-motile 39%]

**SPERM MORPHOLOGY**

- Normal 3% [>4%]
- Head defect 48%
- Neck and mid piece 27%
- Tail defect 22%

**TREATMENT PROTOCOL ADOPTED**

Table 06: showing treatment protocol adopted.

SL NO	TREATMENT GIVEN
01	DEEPANA PACHANA FOR 3 DAYS
02	VIRECHANA
03	ERANDAMoola NIRUHA BASTI F/B ANUVASANA BASTI FOR 15 DAYS
04	MUSTADI YAPANA BASTI F/B ANUVASANA BASTI FOR 15 DAYS

**SHAMANA YOGA**

- Shilajathu vati 1-1-1 A/F for 15 days
- Ashwagandha ksheerapaka 20ml – 0 -20 ml B/F for 15 days
- Tab Neo [charak] 1-0-1 A/F for 15 days

**MATERIALS AND METHOD**

**VIRECHANA KARMA**

Poorva karma

Deepana pachana was given with chitrakadi vati 1 tid- 3 DAYS.

Sneha pana with ashwagandha gritaha for 4 days

Table 07 showing dose of snehapana.

DAY	1	2	3	4
DOSE	30 ML	70 ML	140 ML	180 ML
TIME OF INTAKE	6:30 AM	6:30 AM	6:30 AM	6:30 AM
KSHUT PRADURBHAVAKALA	11:30 AM	12:00 PM	1:30 PM	2:00 PM

### VISHRAMA KALA: THREE DAYS

*Sarvanga abhyanga* with *murchita tila taila* f/b *usna jala snana* along with *laghu bhojana* was given for 3 days.

#### Pradhana karma: Virechana

Yoga	Trivrut lehya	Anupana	Ksheera
Time	8: 30 AM	Vega Prarambha	9:15 AM
Matra	40 grms	Vega Shanti	4:00 PM

Laingiki	Vegiki	Antiki
Kramat dosha Nirharana Sroto Shudhi Indriya -Prasadhana Shareera -Laghuta Agni Deepti Vatanulomana seen in patient	23 vegas	Kaphanta

*Paschat karma: samsarjana krama* was given for 5 days.

### BASTI

*Erandamooladi niruha Basti* and *Mustadi yapana Basti* was planned for 15 days each in kala pattern.

Contents of *Erandamooladi niruha Basti* and *Mustadi yapana Basti*

Table 08: Showing the Contents of *Erandamooladi niruha Basti* and *Mustadi yapana Basti*.

Erandamoola Niruha Basti		Mustadi Yapana Basti	
Contents	Dose	Contents	Dose
Makshika	50ml	Makshika	60ml
Saindhava	5 grams	Saindhava	5grams
Pippalyadi ghrita	60ml	Pippalyadi ghrita	60ml
Shatavari choorna + shatapushpa choorna	5 grams each	Shatapushpa choorna	5 grams each
Erandamooladi kashaya	300ml	Mustadi yapana basti kwatha choorna + milk	400ml
Total	420 ml	Total	530ml

*Anuvasana basti* with *bruhat chagaladi gritha* 60 ml.

### OBSERVATION

Table 09: showing observation.

SEMEN ANALYSIS	BEFORE TREATMENT	AFTER TREATMENT
Sperm count	67 millions/ml	67millions/ml
Normal sperm	3%	40 %
Head defect	48%	30%
Neck and mid piece defect	27%	15%
Tail defect	22%	15%
Sperm motility	61%	61%



## DISCUSSION

Klaibya or male sexual dysfunction, denoting the inability of a man to achieve a satisfactory sexual relationship. Klaibya is caused due to the dusti in shukra dosha. According to modern, erectile impotence is defined when a person has a problem achieving and maintain a firm erection, consistently over a 6-month period and in more than 50% of his coitus attempts. Teratospermia is a condition in which there is an increase in the percentage of sperm with abnormal forms in semen.

In this single case study, due to sedentary lifestyle and ruksha guru ahara sevana, chinta shoka and madhya sevana there was vata pradhana tridosha dusti exhibiting symptoms like alpa bala, ghada varchas, linga shaitalya, ati sweda, tandra leading to shukra dusti and klaibya, which can be grossly correlated to erectile dysfunction along with teratospermia.

Acharya Charaka in Chikitsa Sthana 30th chapter explains the treatment of klaibya as virechana followed asthapana and anuvasana basti. In this case initially shodhana therapy was adopted followed by basti karma.

### VIRECHANA KARMA

Rasayana becomes more effective when preceded by a suitable Panchakarma therapy.

As in klaibya, there is bahusosha avastha, shodhana line of management through virechana was adopted as virechana is indicated in shukra dusti.

Deepana pachana was given with chitrakadi vati in 1 TID dose for 3 days. Shodhana Snehapana was done with Ashwagandha gritha for 4 days starting with initial dose of 30 ml and final dose of 180 ml. Ashwagandha gritha contains mainly Ashwagandha, Atmagupta and Asta vargha dravyas all these drugs contain anxiolytic, antidepressant and antistress adaptogens. It is beneficial in stress induced sexual dysfunction and indicated in ksheena shukra.

Samyak snigdha lakshana was attained on the 4th day. 3 days of vishrama kala was given in which patient underwent sarvanga abhyanga and sweda. Virechana was given with Trivrut leha 40grms along with milk as anupana. Patient attained pravara

shuddhi, 23 vegas with proper elimination of doshas and kaphaanta was achieved. Samasarjana karma was given for 5 days.

### BASTI KARMA.

According to Acharya Charaka's Basti Chikitsa is the Ardha Chikitsa and it is important for the treatment of Vata Dosha. Vata Dosha is main reason for Shukra Kshaya.

Virechana karma was followed by erandamoola niruha basti [shodhana basti] for 15 days and mustadi yapana Basti [brihmana basti] for 15 days starting from 9th day of virechana karma as stated in the classics.

### ERANDAMOOOLA NIRUHA BASTI11

Erandamoola is vrushya and vatahara and apana vatanulomaka in nature. It has lekhana property and thus acts as a shodhana basti by removing srotorodha. It helps in removing kapha avarana and bringing back vata dosha to normalcy.

### MADHU TAILIKA BASTI12

Ingredients of Madhutailika basti mainly contains brumhana, bhalya, shukrala, shukra shodhaka along with rasayana and vajeekarana properties. Due to madhura, tikta rasa and snigdha guna and sheeta veerya it pacifies vata dosha and has beneficial effect on sperm quality, and quantity as well as on biomarkers of spermatogenesis.

### ANUVASANA BASTI

Anuvasana basti was given with Chagalaadi gritha13 which contains goat meat as a main ingredient along with jeevaneeya and other bruhmana.

NEO TAB [CHARAK] is indicated in erectile dysfunction. It contains Kapikacchu, Bringaraja, Shatavari and Yasti Madhu. Kapikacchu and Bringaraja calms the nerve impulses and reduces excitability. Shatavari and yasti madhu reduce psychological causes and serve as adaptogenic support.

There was significant improvement in sperm analysis, morphology of defective sperms improved after the course of treatment along with marked improvement in erectile dysfunction.



## CONCLUSION

*Klaibya* is a condition where in both *shareerika* and *manasika* factors are involved. As in *klaibya*, there is *bahudosh* avastha, shodhana should be done followed by *rasayana* therapy. Classical *Virechana Karma* followed by *asthapana basti* and *anuvastana basti* may be effective in correcting the motility and viability of sperms in teratospermia and addressing male infertility. As the patients of *klaibya* will be suffering from emotional stress, proper *rasayana* may help in good rejuvenation and improve quality of life.

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