

Evaluation of Semen Analysis after Use of *Shukrataralya Hara Yoga*

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ABSTRACT

Evidence of male sub fertility is significantly arising in urban and rural society. Abnormalities of semen and disabilities regarding coital act are seen frequently in young generation. *Shukra* i.e. Semen is the seventh basic element called *shukradhatu*, is responsible for the physical strength, production of fetus in life human beings. According to ancient Indian philosophy, *Moksha* is fourth most important basic duty called *Purushartha* and it is depend upon progeny of human kind. A good progeny can be resulted only from *shuddha shukra*. Hence treating the *shukradushti* plays prime role in cases of ill fertility or sub fertility. Also couples having bad obstetric history or history of congenital malformations needs to rule out and treat *shukradushti*. Various raskalpas, plant products (drug formulation) and therapies like *rasayana* and *vajikarana* including *dincharya* and *rutucharya* can improves such abnormalities. *Vanga bhasma* (incinerated ash of metal tin) and *mushali* is one of the combinations described by *Rasa Tarangini* which states that consumption of this yoga can destroy *Tarala dosha*, within one month. So study conducted keeping this reference in front and its effect is studied for various semen abnormalities with modern parameters.

Key words: *shukra, shukradushti, rasayana, vajikarana.*

INTRODUCTION

Near about 9% of couples from entire world population suffering from failure to get a child. Now a days exposure to chemicals, pollution, radiation, T.V., mobiles, computers is markedly increased in the society. Work patterns are extremely stressful and sedentary lifestyles with consumption of faulty food. Additionally consumption of alcohol, tobacco chewing, smoking are also highly responsible factors which leads towards male infertility. *Ayurveda* says that a seed is unable to produce a plant once it get affected by micro organisms, or got wet due to water or burned due to fire. Same way a person having defective semen and sperms cannot

produce his progeny. *Shukra dhatu* is said at seventh number in process of *dhatu* production i.e. Metabolism. It will be of better quality only if the production of prior *dhatu*s will takes place properly. The choose combination has properties of *rasayana karma* and also of *vajikarana karma* which are very important in the process of formation of all *dhatu*s and improvement of *shukra* quality.

Aim and Objectives

1.To study complete *ayurveda* literature on *shukra dhatu* and *shukra dushti* with special reference to *shukrataralya* .

- 2.To study complete *ayurveda* literature available on *vanga dhatu* and *Talmuli* (black mushali).
- 3.To study modern literature available on seminal abnormalities and its treatment options.
- 4.To study effect of *shukrataralyahara yoga* on various seminal abnormalities.
- 5.To propose cost effective management of various seminal abnormalities.

Inclusion criteria

1. All cases of oligozoospermia, asthenozoospermia, teratozoospermia.
2. All married cases in age limit of years 21 to 35 years
3. Minor degree varicocoele (I & II)

Exclusion criteria

1. All cases of major systemic illness
2. Known cases of hernia, hydrocoele and major degree varicocoele. (I & II)
- 3.Cases of azoospermia.

Study Design

Reference: *Rasatarangini* 18th chapter *shloka* number 36. [1]

Consumption of *Talmuli* and *Vanga* upto one month will relive *Shukra taralya* forever.

Type of study: open uncontrolled study

Study centre: M.A. Podar Hospital, kashyapa ward.

Number of cases: 60

Drug: It is combination of *vanga bhasma* and *talmuli*. All *ayurvedic* concepts kept in mind while preparing the drug.

Duration of study: 60 days

Dose of drug: *vanga bhasma* 250 mg + black *mushali* 3gm powder, twice a day.

Route of administration: oral

Anupana: 200 ml cow milk and 10 ml cow ghee

Kala: *Prakbhakt kala* (before meal).

Investigations: all general hematological blood investigations like Hb, BSL fasting and post prandial, HbsAg, HIV, VDRL, LFT, RFT were done before selection of a case. Pre and post study semen analysis has been done for evaluation of efficacy of drug.

MATERIALS AND METHODS

The formulation contains combination of *vanga bhasma* and black *mushali* which is an Indian herb administered in dose of 125 mg and 3 gm respectively in powder form twice a day with cow milk and cow ghee, as *vanga bhasma* is fat soluble hence ghee is used as *anupana* material. Already prepared, authentic and standardized *vanga bhasma* from shree Dhoot Papeshwar Pvt. Ltd batch no. d 82/2 Aug 2006 was used. Black *mushali* root stalk purchased from Dadar pharmacy and powder preparation done at same place i.e. Shree Dhootpapeshwar Pvt. Ltd, with standardization and authentication.

REVIEW OF LITERATURE

Shukra dhatu: *Shukra* is seventh *dhatu* amongst all of body and is best amongst them. It is also known as *retas*, *beeja*, *virya* and *indriya*. *Shukra* is present all over body [2] but specially lies in testes and mammary glands. It is produced from *majja dhatu* [3] during process of metabolism. There is no waste material during formation of *shukra* hence it is a pure *dhatu*. According to various *Acharyas* time period for its production is different. *Charaka* says it is of 24 hours, [4] while *wagbhata* says it is of six days. [5] According to *Parashara* it is 8 days while *Sushruta* states this time period is up to 30 days. [6] Some of *Acharyas* says it is depends upon power of *Agni*. Those persons having weak *agnibala* may have delay in the production of *shukra* while those having strong *agnibala* will get early production of respective *dhatu*s in their body.

Characteristics of *shuddha shukra*: [7-9]

It is *Snigdha* (unctus), *Bahala* (viscus), *Madhura* (sweet), *Avisra* (without unpleasant smell), *Guru* (heavy contain), *Picchila* (sleepary), *Shukla* (white in colour), *Bahu* (large amount), *Ghana* (dense), *Sphatikabham* (like white crystal), *Tailkshoudrabham* (sometimes appears like oily or like honey), *Madhugandhi* (smells

like honey) and *Avidahi* (does not cause burning while emission).

Shukra kshaya: ^[10] (Deficiency of *shukra*): Emotional and stress factors like anger, jealous, fear, worry, excess cry leads to deficiency of *shukra*. Also any chronic illness, fever, excess use of *shodhana chikitsa* and over practice of sexual act leads to *shukra kshaya*.

Symptom of shukra kshaya: ^[11] In state of deficit *shukra* expulsion of semen gets delay and causes severe pain while emission and it is also blood stained. Deficient *shukra* causes weakness of mind and deficiency in *rasdhatu*, which results in weakening of heart and further *dhatu*s.

Shukra vrudhhi: Increased level of *shukra* leads to high sexual desire and sometimes results in *shukrashmari* i.e. stony hard solidification of semen.

Causes of shukra dushti: ^[12] Participation in sexual act before mature age, abnormal or over practice of sexual habits, and suppressing sexual urge after getting stimulation of it, are the responsible factors for *shukradushti*. Also abuse of *kshara karma*, *shastra karma* and *agni karma* can cause *shukra dushti*.

Types of *shukra dushti*: There are eight types of *shukra dushti* as follows.

1. *Fenila* : semen with air bubbles.
2. *Tanu* : extremely liquid
3. *Ruksha* : dry
4. *Vivarna* : abnormal color
5. *Puti* : with unpleasant odor
6. *Picchila* : sticky in nature
7. *Anya dhatu upasanshtra* : mixed with other body contents like blood, stool etc
8. *Awasadi* : which causes depression after ejaculation.

Taral shukra is resembles with *tanu dosha* of *shukra*. *Taralta* means high liquidity.

Diseases due to shukra dushti: ^[13] Impotence, erectile dysfunction, loss of libido caused due to *shukra dushti*. Pregnancy achieved from such *dushta shukra* may get aborted or results in premature termination with less immunity and non viability. Also child may born with congenital malformations.

Treatment of shukra dushti: ^[14] Two main branches of ayurveda, *rasayana* and *vajikarana* deals with *shukra dushti* and allied conditions. It is having extensive level of description in various *ayurveda samhitas*. *Rasayana* deals with nutrition, purification and strengthening of all body *dhatu*s from beginning while *vajikarana* deals with increasing libido to its higher level and also to avoid bad effects of over use of sex. A large number of herbo-mineral drug materials are available for these treatments. Entire description of the topic could not be mention here to avoid extension of article.

Modern concept of semen:

Physiology & Anatomy of male reproductive system:

External genitalia contains scrotal sacs in inguinal region and a penis, while internal genitalia composed of two testes, epidydemis, vas deference, prostate gland, seminal vesicles and urethra. Testes are exo-endocrine glands which secrets hormone testosterone which is responsible for development of secondary sexual characters in males. Testes also produce male gametes called sperms, which are stored and matured in somniferous tubules. Matured sperms expelled out from urethra with semen during coital act.

Semen is the suspension of spermatozoa in the secretion of the epidydemis, prostate, seminal vesicles and cowper's glands. Volume at each emission is about 2-4 ml, containing 100-200 millions of spermatozoa, 80% of which remain actively motile for 45 minutes but not more than 3 hours. They should not contain more than 25% abnormal forms. Volume and sperm count decreased with number of emissions. About 50% of men contain 20-40 million sperms /ml of semen, but containing lower the 20% generally remain sterile. Semen contains fructose, sorbitol, spermine, citrate, acid phosphatase, lipids, fibrinolysis and prostaglandins. Its specific gravity is 1.028 & ph is 7.35-7.59. Seminal buffers serve to protect the sperm against the low ph of the vagina. Its color is highly viscid

opalescent, grayish white. Prostaglandins helps in the movement of spermatozoa to the fallopian tube through uterus.

Factors affecting sperm production:

1. **General health and lifestyle:** Regular exercise, sufficient rest, wellbeing with healthy life style positively affect sperm production while ill health and sedentary lifestyle adversely affect it.

2. **Social relationship:** Pleasant environmental conditions and stress free life helps in secretion of certain hormones which help to produce sperms. Stressful life may leads to sub fertility in male.

3. **Obesity and age:** Increased body mass index and age above 35 years associated with fertility issue.

4. **Chronic infections:** Any illness of longer duration with disturbed thermo regulatory mechanism leads to defective spermatogenesis.

5. **Food:** Spicy, oily, salty and fast food with low nutritional elements causes defective spermatogenesis.

6. **Addiction:** Alcohol, smoking and tobacco chewing in excess quantity hampers sperm production.

7. **Exposure:** exposure to radiations, heat, chemotherapy, pesticides, and chemicals impairs sperm production.

Disorders of male reproduction: Loss of libido, erectile dysfunction, premature ejaculation, sterility, varicocoele, male hypogonadism, blockage of epididymis or ejaculatory ducts, anatomical defects like phimosis and paraphimosis are some of the common issues seen in cases of male reproduction defects.

Drug review:

Vanga Bhasma (Tin) (pewter calx): [15]

It is tin metal i.e. *Stannum (Sn)*, having Atomic number 50, Atomic wt 118.6 gm, specific gravity 7.298 (at 20⁰C). It is found in two forms i.e. Silver like bright white metal, softer than gold and harder than lead. It is in group IV of periodic table with group members like carbon, silicon, germanium and lead. Second is gray tin which is non pure, and in compound form with lead, bismuth, arsenic and copper. According to

Ayurvedic texts this white tin is called as *khuraka vanga* in pure form, while gray or impure tin is *mishraka vanga*. The purest (non toxic) metal is available in 99.8% pure form even after modern sophisticated methods of purification.

Medicinal properties: [16] According to Ayurvedic concept it is bitter (*tikta kashaya*), dry, hot and light (*ruksha, ushna, laghu*) having *ushna virya* and having properties controversial to *kapha*. It increases *vata* and *pitta dosha* in body. Tin is present in most of animal tissues in small quantity and is an essential element for growth in rats. It is toxic due to its poor absorption and rapid turnover.

Medicinal Uses: [17] Diabetes, obesity, loss of libido, lipolysis, aphrodisiac, rejuvenation and prevents nocturnal emission. It has prime role in improvement of premature ejaculation and erectile dysfunction .

Talmuli: Black mushali (Curculigo orchioides geartn.) [18]

It is a perennial herb, grows upto 10- 35cm, root stalk stout and found in sub tropical Himalayas from *kumauna* west Bengal, western *ghats, konkana* and *nilgiri* hill. It contains flae glycosides, cycloartend, sucrose, palmetic, oleic, linoleic, arachidic and behenic acids. Also contains sitosterol, stigmasterol, curculigo sappnis. It is having hypoglycemic, anticancer, hepato-protective, anti inflammatory properties. Flavanone glycosides shows powerful uterine stimuli in guinea pigs, rats and rabbits. Study conducted in 10 cirrhotic patients given a commercial available drug which contain *Curculigo orcheoides* with other herbs shown reduced levels of serum enzymes, cholesterol and bilirubin with raised levels of proteins. This shows hepato-protective properties of black *mushali*. According to *Aurveda* it is *madhura* (sweet) and *tikta* (slight bitter) in taste. It is having *guru, snigdha and picchil guna*. It causes *vata- pitta shamana*.

Medicinal uses: skin disorders, jaundice, diarrhea, indigestion, seminal abnormalities, dysurea and loss of libido.

GOKSHEER (COW MILK): [19] Charaka mentioned milk is best *jivaniya draya* i.e. best life promoting and supportive substance. Its latin name is *Lac mulgere* and *dugdha, kshira, payas, gorasa, amrut, jivana, piyusha* are its Sanskrit synonyms. It suppress *vata* and *pitta dosha* while raises *kapha* in body. *Ksheera* is *madhura, sheeta* and contains protein, fats, carbohydrates, minerals and vitamins. It is *balya, vrishya* (aphrodisiac), *rasayana* (rejuvenating), *medha vardhaka*. It is beneficial for old aged, for *kshatkshina* (injured), *kshudhita* (hungry), after *vyayama* (exercise), *vyavaya* (sexual act).

GOGHRITA (Clarified butter): [20] It is also called *sarpi* or *navneetkam*. It is yellowish to white depending upon the carotene content. It is having *madhura* properties and is *piita-vata shamaka*. *Ghrita* is *rasayana, agnivardhaka*, helps to improve colour of skin. It is helpful for growth of *dhatu*s, *jivaniya* and *vajikara*.

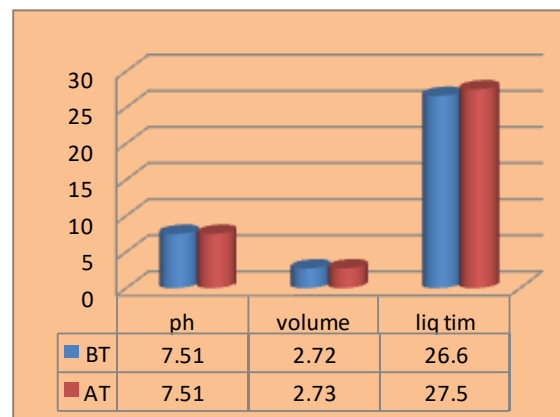
Research Trials methodology

After written informed consent, the combination of *vanga bhasma* and *talmuli* is administered orally with *gokshira* and *ghrita* in selected cases. Properly designed CRF is filled with all primary information of individual case. Drug is given twice a day for 60 days and post trial investigations done. Follow up kept for every 20 days to observe any adverse reactions. All data collected is filled in CRF. After all research formalities data is processed for statistical evaluation.

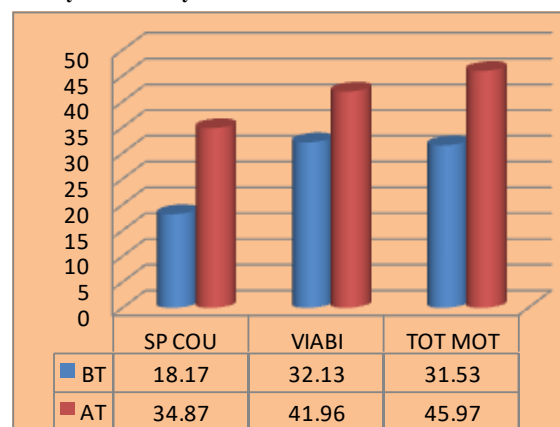
OBSERVATIONS AND RESULTS

Before and after study data shows that there is no significant change seen in semen parameters like ph, liquefaction time and existence of fructose. Sperm count per ml, viability and motility of sperms has been significantly increased in post trial investigations while non motile and abnormal forms reduced. This can be understood better with help of bar diagrams given below.

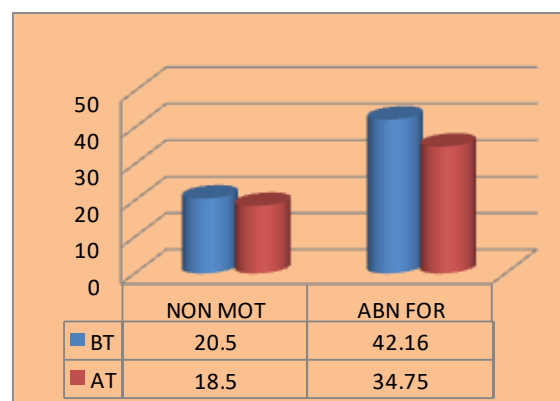
Graph 1 Showing pre study and post study values of seminal ph, volume and liquefaction time



Graph 2 Showing pre and post study values of sperm count, viability and motility.



Graph 3 Showing pre and post study values of non motile and abnormal forms



DISCUSSION AND CONCLUSION

This trial was conducted on patients of various seminal abnormalities including oligozoospermia (low sperm count), asthenozoospermia (less motility), teratozoospermia (abnormal forms), erectile dysfunction, premature ejaculation etc. as parameters of study were objective hence no data is processed about subjective

parameters to concise the study. Properties of drug material like *madhura*, *vrushya*, *rasayana*, *sheeta*, *dhatu poshaka* and *yogvahi* leads to *rejuvenate* the all *dhatu*s and resulted into betterment of *shukra dhtu*. It helped to minimize the *shukra dushti* and to increase sperm count. Enriched *dhatu* converted to *shuddha shukra* and *shukra vruddhi* occurred in trial cases. Hence this study shows effectiveness of *shukrataralyahara yoga* for various seminal abnormalities and it can be safely administered in cases up to period of two months. Further study has to be continued with objective parameters and extending the study period to get more better and specific results.

REFERENCES

1. Pandit Sadanand Sharma, Ras Tarangini 18/20, 11th edition, 1979.
2. Acharya Agnivesha, Charaka Samhita vol. II, Chikitsa sthana 2/4-46, by Pt. Kashinath Shastri and Dr. Gorakhnath Chaturvedi, Reprint 2004.
3. Acharya Sharangadhara, Shrangadhara Samhita Poorva Khanda 5/24, by Shailaja Shrivastava, 2nd edition, 1998.
4. Acharya Agnivesha, Charaka Samhita vol. II, Chikitsa sthana 5/20-21, by Pt. Kashinath Shastri and Dr. Gorakhnath Chaturvedi, Reprint 2004.
5. Acharya Vagbhatta, Ashtang Hrudaya Sharir sthana 3/66, by A. G. Vidyalkar.
6. Acharya Sushrut, Sushrut Samhita, Sutra sthana 15/15, by Ambika Datta Shastri, 2000.
7. Acharya Agnivesha, Charaka Samhita vol. II, Chikitsa sthana 30/5/4, by Pt. Kashinath Shastri and Dr. Gorakhnath Chaturvedi, Reprint 2004.
8. Acharya Agnivesha, Charaka Samhita vol. II, Chikitsa sthana 2/4-50, by Pt. Kashinath Shastri and Dr. Gorakhnath Chaturvedi, Reprint 2004.
9. Acharya Sushrut, Sushrut Samhita, Sharir sthana 2/11, by Ambika Datta Shastri, 2000.
10. Acharya Agnivesha, Charaka Samhita vol. I, Sutra sthana 17/176-77, by Pt. Kashinath Shastri and Dr. Gorakhnath Chaturvedi, Reprint 2004.
11. Acharya Agnivesha, Charaka Samhita vol. I, Sutra sthana 5/9, by Pt. Kashinath Shastri and Dr. Gorakhnath Chaturvedi, Reprint 2004.
12. Acharya Agnivesha, Charaka Samhita vol. I, Vimana sthana 5/19, by Pt. Kashinath Shastri and Dr. Gorakhnath Chaturvedi, Reprint 2004.
13. Acharya Sushrut, Sushrut Samhita, Sutra sthana 24/9, by Ambika Datta Shastri, 2000.
14. Acharya Agnivesha, Charaka Samhita vol. II, Chikitsa sthana 30/146-148, by Pt. Kashinath Shastri and Dr. Gorakhnath Chaturvedi, Reprint 2004.
15. Acharya Shri. Madhava, Ayurveda Prakash, 4th edition, 1994.
16. Rasa Chandanshu.
17. Acharya Shri. Madhava, Ayurveda Prakash, 4th edition, 1994.
18. Bhava Prakash Nigantu.
19. Acharya Vagbhatta, Ashtang Hrudaya Sutra sthana 5/20-21, by A. G. Vidyalkar.
20. Acharya Agnivesha, Charaka Samhita vol. I, Sutra sthana 13/14, by Pt. Kashinath Shastri and Dr. Gorakhnath Chaturvedi, Reprint 2004.

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