

A STUDY ON GOKSHURADI CHURNA IN SHUKRALPATA W.S.R. TO OLIGOSPERMIA

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ABSTRACT

Shukra alpata (oligospermia) is the disorder in which there is kshaya of shukra dhatu in the body due to the change in dietary conditions, life style, stress, injury and other disorders like hormonal imbalance, orchitis, mumps, vericocoele etc. according to Ayurveda, shukra should possess such a potency so as to conceive a lady. The impact of defective shukra of infertility. The present research work was aimed to explore to study the efficacy of gokshuradi churna in management of shukra alpata (oligospermia). Ayurveda sanshodhan, nidanparivarjan and sanshaman are the basic principles of treatment of diseases.

KEYWORDS: Shukra, Shukralpata, Gokshuradi churna, Oligospermia.

INTRODUCTION

Ayurveda - the science of healthy living. And it is the most rational and scientific among the ancient system of Medicine. Being an eternal science, Ayurveda is the 'science of human life' deals with physical, physiological as well as spiritual well-being of an individual.

WHO defines infertility is "a disease of the reproductive system defined by the failure to achieve a clinical pregnancy after more than 12 months or more of regular unprotected sexual intercourse (and there is no other reason, such as breastfeeding or postpartum amenorrhea).


In male infertility Oligospermia is the prime factor other than Asthenozoospermia, Azoospermia, Teratozoospermia. According to WHO, In Oligospermia sperm count is reduced upto the 20 million/ml.

In Ayurveda, Oligospermia correlated with Alpashukrata, in Ayurvedic literature Acharya Sushruta describes Shukra as it is whitish in colour, liquids in consistency, sweet in taste, looks like a colour of honey or oil.

It is a sincere try to solve the problem of male infertility up to some extent. Gokshuradi churna contains gokshur, kokilaksha, masha (udid), atmagupta, shatavari which are easy available and cheap. All the contents of gokshuradi churna are vrishya, therefore it is used to treat the patients of shukra alpata (oligospermia).

AIMS AND OBJECTIVE

 **AIMS** :- A study on Gokshuradi churna in shukralpata W.S.R. to Oligospermia.

 **OBJECTIVE**:- Study the effect of Gokshuradi churna in Oligospermia on parameters of semen analysis.

WHAT IS SHUKRA ALPATA

Means the reduction in the quality or quantity of the shukradhatu or hampered production.

The persons who are suffering from Anger, fear, grief, lots of mental works or stress, excessive use of fast foods, dry food. Some types of drugs also causes the infertility. Improper dietary habits leads to diminished formation of ras dhatu further leads to reduction in rakt dhatu thus ending in the reducctin of shukra dhatu.

In chikitsa sthana, acharya charak also mentions that shukra get diminished by old age, anxiety, heavy work and excessive sexual indulgence.

The causes of shukra dhatu kshay can be broadly described as

- 1) Being a shukra dushti, shukra dushtikar aaharas and viharas can be considered as the primary cause.
- 2) Shukra is sara of sapta dhatus, so the factors which make the kshay of dhatus can be considered in the hetus.
- 3) The factors which which leads to the shukravaha strotas dushti palys an important role in producing kshin shukra.

- 4) The doshas involved in shukraalpta are vata and pitta so the causes for vitiation of vata and pitta doshas can be taken into account.
- 5) The diseases such as sthaulya, prameha etc predispose to shukraalpta. Thus these types of nidanarthkar vyadhis are also included in the etiology.
- 6) The consumption of drugs like kshara, lavana, etc can lead to shukraalpta.

CAUSES OF OLIGOSPERMIA

Several conditions and lifestyle factors can increase a man's risk for oligospermia.

- **VERICOCELE:-** Enlargement veins in a man's scrotum can disturb blood flow to the testicles. this can cause the temperature in the testicles to increases. Any increase in temperature can negatively impact sperm production. about 40% of men with low sperm numbers or low sperm quality count have this common issue.
- **INFECTION:-** Virces like sexually transmitted infections can reduce the sperm amount in semen. infection like mumps, orchitis, syphilis, non-specific urethritis, after pubertal period, may permantely arrest spermatogenesis. Orchitis, mumps arrests maturation process and also arrests the androgenic function of leyding cells. Systemic infection like bacterial also affect the sperm count. Chlamydia trachomatis or mycoplasma infection lead to defective spermatogenesis.
- **THERMAL:-** The scrotal temperature should be less than 2°f from the core body temperature raised scrotal temperature may depress the spermatogenesis because it is sensitive process, which alters with alternations in temperature. Men working in hot enviroment such as near furnace, near large engines mines, cook also show impaired spermatogenesis. Tight wearing undergarments, frequents hot baths has an adverse effect.
- **CONGENITAL:-**
 1. Cryptorchidism or congenital mal-position or undescended testis an incidence is one among the causes of poor semen quality. It causes permanent damage of testis. They are also hormonally defective. unilateral cryptorchidism even when corrected prior to puberty is associated with abnormal semen in many males (Harrison1994).
 2. Kartagener syndrome (autosomal disease) - There is loss of ciliary function and motility.
 3. Hypospadias- Failuar to diposite of sperm high vagina.
- **ENDOCRINE :-** - Testicular failure due to gonadotrophin deficiency.(kallmann's syndrome) is rare.

- FSH level is raised in idiopathic testicular failure with germ cell hypoplasia (Sertoli-cell-only-syndrome).
- Hyperprolactinaemia is associated with impotence.
- **GENETIC:-** Common chromosomal abnormality in azoospermic male is Klinefelter's syndrome (47XXY). Gene deletion has been detected in the long arm of Y chromosome (Yq) for patients with severe oligospermia.
- **NUTRITION:-** Nutrition is important in normal spermatogenesis. Protein deficiency definitely results in impaired spermatogenesis.
- **METABOLIC DISORDERS:-** The main metabolic disorder disease is diabetes- it gives rise to oligospermia, retrograde ejaculation and impotency.
- **IATROGENIC:-** Radiation, cytotoxic drugs, nitrofurantoin, cimetidine, β blockers, antihypertensive, anticonvulsant and antidepressant drugs are likely to hinder spermatogenesis leading to oligospermia. Surgical operation, which has been done improperly urethral stricture or diverticulum, prostatectomy may cause defective spermatogenesis.
- **Drugs affecting ejaculation:-** Alpha-blockers- phenoxybenzamine, phentolamine, prazosin, terazosin.

DIFFERENTIAL DIAGNOSIS

Asthenospermia:- poor motility of sperm.

Azoospermia: complete absence of sperm.

Aspermia:- Means failure of emission of semen

Oligospermia :- less than 20 million/ml total sperm.

Oligoasthenospermia :- poorly moving and low numbers of sperm.

Teratozoospermia :- sperm carry more morphological defects than usual.

Necrozoospermia :- all sperm in the ejaculate are dead.

DIAGNOSIS

The time honoured method of evaluating male infertility has been the semen analysis. Extensive variation in normal semen values will be encountered both among individual and among individual samples taken from particular patients therefore, it is necessary to perform several semen studies before a definitive diagnosis is stated. Oligospermia should be confirmed only after investigation more than 2 occasions with a minimum of 2 weeks interval.

REVIEW OF DRUG LITERATURE:- GOKSHUR

- ✚ GANA- Mutravirechan, shothahar, Vidarigandhadhi, krimighna laghupanchmula(C), Vatashmaribhedan(S)
- ✚ NAME- Tribulus terrestris (having three sides of the ground)
- ✚ FAMILY - Zygophyllaceae
- ✚ KULA - Gokshur kula
- ✚ ENGLISH NAME - caltrops.
- ✚ PARTS USED - FRUIT, ROOT, PENTAD.

BOTANICAL DESCRIPTION – Shrub spreads on land with 0.5-1 mtr. Of height. Branches spread from all the sides. Leaves- like a that of gram plant. Flowers- small, yellow coloured with five petals. Fruits-slightly pentagonal having 2-3 sharp thorns. Seeds many cointain scented oil. Roots – 10-13 cms. Lang smoky with slightly strong smell and sweet. Flowering occurs in autumn followed by fruiting.

PROPERTIES

- GUNA – Guru, snigdha.
- RASA - Madhur.
- VEERYA- Sheeta
- VIPAK – Madhur
- DOSHA- Vatapittakaphshamak.

MATERIAL AND METHODS

The materials are used for the clinical study “To study the efficacy of gokshuradi churna in shukra alpta w.s.r. to oligospermia” include the drug and equipments which are necessary for the preparation of gokshuradi churna.

INCLUSION CRITERIA

1. Diagnosed cases of oligospermia on the basis of semen analysis.
2. Age between 25-45 years.

SAMPLE SIZE - 37**MATERIALS USED FOR THE PREPARTION OF GOKSHURADI CHURNA**

1. Gokshur
2. Ikshurak(kokilaksha)

3. Masha (udid)
4. Atmagupta (kapikachhu)
5. Shatavari

PROCEDURE

1. All five dried drugs are taken in khalva yantra and subjected to crushing by hammering or by grinders.
2. When these are reduced to fine particles they are sieved through either fine cloths or wire mesh of different sizes.
3. To maintain the uniformity of the particles and their homogenous nature.
4. The particle size it may be divided into coarse, fine and microfine powders.
5. Prepared the powder of all the ingredients and mix it properly.
6. This churna formulation is know as gokshuradi churna as the ingredients start with gokshura.

Selection of Drugs: Legions of drugs including androgen and gonadotrophins have been proposed as treatment degined to increase sperm count, but none has been shown to significantly increase sperm count or motility. ‘Gokshuradi churna’ has been described by Acharya Vagbhata in Ashatanga hrudayam uttartantra 40th adhyaya.

MODE OF ACTION: All the five drugs are having

Guna- Guru and snigdha,

Rasa- Madhura

Vipaka- Madhura

Virya – Sheet virya-Gokshura, Kokilaksha and Shatavari Ushna virya-Masha (udid), Kapikacchu.

Also all the five drugs are individually used to increase the sperm count. Contains of gokshuradi churna are easily available and cheap. The prepared Gokshuradi churna is easy to take and palatable. In shukra alpata (oligospermia), it act as saptta dhatu vridhikar with its guru guna and vatshamak. Snigdha gunsa act as balya, vattapita shamak. Madhura ras is pittashamak, saptadhatu vridhikar and brihanakar ultimately shukra vridhikar.

Effects on ejaculation and penile erection

Substantially improvement seen in ejaculation dysfunction and pain during coitus may be of gokshur, kapikacchu, kokilaksha which have vrishya property. Since vata is responsible for ejaculation erectile response and rigidity. The combined effect of drugs vrishya, balya, vajikara and vatahar actions may help in relief of complaint. Bhavaprakash has mentioned gokshur madhura (sweet), dipno, vrishya, pustikar. Bhavaprakash and Rajnighantu Mentioned kokilasha has vrishya and balya, Acharya charak mentioned shatavari and masha (udid) also has vrishya, balya and vatashamak all five drugs are bruhan, vajikar, pustikar, balya effect, increase the patient bala and nutritions of dhatu. It helps to patients overcoming duarbalya (weakness), exertions related symptoms.

DISCUSSION ON OBSERVATION

Improvement in symptoms of alpa shukra.

1. Medhra toda

In this study it was ascertained that before treatment 4 patients are complained of medhra toda at time of sexual relations, but after treatment only 2 patients have still complaint. Patient experience pain in penis at the time of semen ejaculation and after semen ejaculation pain subside.

2. Dourbalya

Acharaya has explained the lakshana of shukra kshya as dourbalya, panduta, shrama medhra, bhrama, sandhishula, shosha, sadan, medhra dhumayana, vrushana vedana are the sthanik lakshana. Before treatment before treatment 6 patients are complaining of dourbalya but after consuming Gokshuradi churna only one patient were still remain same complaint. It may be due to the bruhan effect of Gokshuradi churna with milk.

Addiction

In this study smoking, tobacco chewing and alcohol all harm to health and decreases the sperm count. 38% patients are addicted. Alcohol consumption lowers the plasma testosterone synthesis. nicotine has direct effect on function. All the above said addiction leads to impairment of spermatogenesis, sexual mood which again is responsible for alpashukra.

STERILITY

84% of the patients are primary infertility and only 16% of patients having secondary infertility. The cause of secondary infertility may be infection, mumps, varicocele, trauma, stressful life, drug addictions which reduces the sperm count.

Agni: In this study maximum patients are having vishmagni, this shows the involvement of vata dosha in the pathogenesis of alpashukra as vata prakruti persons are having vishama agni. So it can be assumed that their excess of dhatu poshan was deviated from the normal and consequently their shukra dhatu may not be nourished well.

CONCLUSION

From statistical analysis of observation following conclusion can be shown.

- ✚ Considering the observations, Gokshuradi churna can be used safely and effectively on oligospermia.
- ✚ Gokshuradi churna showed good results in semen volume, sperm count, sperm motility, sperm viability in shukraalpat (oligospermia).
- ✚ Gokshuradi churna improves the overall health of the patients.
- ✚ No any side effects were observed during treatment.
- ✚ Ruled out those factor i.e heavy excessive physical work, stressful work effects on spermatogenesis.
- ✚ Gokshuradi churna is significantly useful in shukraalpata (oligospermia) having good results.

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