Role of Vrishyashatavarighrit on Sukrakshaya (Oligospermia) by Studying Siddhant

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Abstract

Ayurveda is oldest tradition addressing major healthcare issues in sophispticated way. There are number of modern medicines giving relief to the patients but having adverse effects at highest level. Ayurveda smartly not only addresses the issues but having less side effects. Current study focuses the use of Shatavarighritin shukrakshay (oligospermia) patients. The study comes to a conclusion with a promising results in the patients of oligospermia. The study result to reduce the burden for patients and giving light who having infertility.

Keywords: *Sukrakshay, Shatavari, Vrushya, Samanya Siddhant.*

Introduction

Siddhant means, the principle which is examine by many experts via different ways and then proved or established. The use of drugs having similar properties brings unity and increases of similar dhatus in body.[1] Application of similarities of all substances is the always cause of increasing of body tissue. Ayurveda is the richest heritage of world whose principle and guidelines are laid by Vedas, which are consider as the first available literature of world.

Infertility is one of the important medical problem which affects sexual life, social function and psychological problems in couple. Vajikarana a branch of Ashtang Ayurveda mainly deals with the drugs and therapies which are aphrodisiac in nature[2,3,4].

These Vajikaran drugs are of 3 types viz.

1. Shukravriddhikara
2. Shukrastrutikara
3. Shukrastrutivriddhikara

Shatavarighrut is described in Mashparnbhritiyaadhyaaya 3 rdpaad of vajaikaranaadhyaaya. All the drugs described in this 3 rdpaada are of Balaprada and Shukraprada in nature and hence Shatavarighrut is selected for study. As Shukrakshaya affects the prakrut karma of Shukradhatu and ultimately leads to infertility, Ayurveda gives very much importance to Dhatu Samanya Chikitsa and describes ultimate aim of treatment for infertility cause by Shukradhatukshaya (oligospermia). Repeatedly use of any thing is known as Abhyas, here use of vrishyashatavarighrit for one month is in bid dose is important for increasing of shukradhatu.

Samanyasiddhant is one of the basic principle in ayurveda which deals with increase of dhatu which were decreased by mitthya-viruddhaaahaarvihaar or other cause. For practical assessment of this siddhant in the patients of Shukrakshaya the vrishyashatavarighrit which is Gun Samanya to Shukradhatu is selected for study. This Shatavarighrit is given in 10 ml bid dose for one month with anupaan of Godugdh which results into satisfactory increases of semen volume and sperm count in patients[5,6,7].

Aims: To study the siddhant "Saman Gunabhyaso Hi Dhatunam Vriddhikaranamiti" w.r.t. Shukrakshaya (Oligospermia) by using Vrishya Shatavari Ghrit.

Objectives:

1. To study "Saman Gunabhyaso Hi Dhatunam VriddhikaranamIti" siddhant

2. To assess the "Saman Gunabhyaso Hi Dhatunam Vriddhikaranamiti" siddhant by practical assessment using gun samanyavriddhikaranamsiddhant for shukradhatu.
3. To study effect of Vrishya Shatavari Ghrit on Shukrakshaya (oligospermia).

Material and Method

30 Male patients suffering from infertility caused due to oligospermia and accidentally found patients who were oligospermic we examined, only those qualifying for selection criteria were selected for the trial, They were explained the objectives and methodology along with the advantages and disadvantages of trial. Those patients who are interested and agreed were involved in the study.

1. **Written consent:** Written consent was taken from the patient for his legal guardian.
2. **History:** Detail history of patient was taken about duration of infertility, marital status, occupation, previous pregnancies, sexual habits like erection of penis, ejaculation, frequency of coitus, history of masturbation and exposure. History of exposure to heat, radiations and toxic environment was ruled out. History of alcohol consumption, smoking, tobacco, gutkha chewing was included in study. Whole history of childhood illness like post pubertal mumps, testicular trauma and torsion, tuberculosis was obtained.
3. **Examination:** Patient was examined for major systemic or surgical illness. For this strotoparikshan was done. Patients who are found to be suffering from major systemic illness were rejected. Similarly, patients suffering from hydrocele, varicocele and other obstructive disorders, inhibiting proper ejaculation of sperm were rejected.
4. **Laboratory investigations:** Laboratory investigations such as semen analysis particularly sperm count and volume of ejaculation was done. VDRL and other investigations were done if necessary.
5. **Selection of patients:** Patients were selected randomly. After screening those found to be oligospermic (sperm count less than 20 million) were selected. Total 30 patients were selected in trial group. Patients included in trial group were treated by Vrishya Shatavari Ghrit 10 ml BD with milk for one month.
6. **Record of observations:** Observed parameters were recorded on first visit and after thirty days by semen analysis (which was done after 3 days of abstinence).
7. **Parameters:**
   a. Sperm count measured in millions.
   b. Volume of ejaculation measured in ml.
8. Treatment procedure:

For the patients of trial group, Vrishya Shatavari Ghrit 10 ml bid was given with anupaan of Godugdh (100 ml) for one month. Patients were asked for follow up after one month. Then again semen analysis was done after 3 days of abstinence.

9. Advice and instruction given to patient:
   - Avoid tight and warm undergarments.
   - Cold scrotal bath at least twice a day for 5 minutes each time.
   - Avoid smoking and alcohol consumption.
   - Avoid shukranashakdravyas and karma's.
   - Avoid excess katu, tikta and kashayarasatmakaahar.
   - No use of any other medicine during treatment.
10. **Statistical Analysis:** After collection of data it was analyzed statistically by applying proper test such as paired t test.

Observation and Result

To study siddhanta 'samanyamvriddhikaranam' with respect to shukradhatu following observations were made and result was calculated. According to age maximum 12 (40%) patients were belonging to age group 21-25 years. The higher number of Hindu indicates demography of region. Maximum 63.33 % patients were with mixveg diet and 36.66 % patients were with pure veg diet. Maximum 63.33 % patients were with mixveg diet and 36.66 % patients were with pure veg diet. Maximum 56.66% patients were addicted and 43.33% patients were non-addicted.

1. Prakruti wise distribution:

Prakriti	No. of patients	Percentage
Vataj	8	26.66%
Pittaj	5	16.66%
Kaphaj	3	10%
Vatapittaj	7	23.33%
Vatakaphaj	4	13.33%
Pittakaphaj	3	10%

Max

26.66% patients were having vatajprakriti. Maximum 26.66% patients were having vatajprakriti.

2. Samhanan wise distribution

Samhanan	No. of patients	Percentage
Pravara	08	26.66%
Madhyam	06	20%
Alpa/Avar	16	53.33%

Above table shows maximum of 53.33% patients were of Avar samhanan and 20% patients of madhyamsamhanan and remaining 26.66% patients were having Pravarasamhanan.

3. Volume of Ejaculation:

Mean volume of ejaculation in trial group as per visit i.e. before and after was as follows:

Visit	Before trial	After trial
Mean	2.2166	2.5833
SD	0.52	0.732

Paired t-test:

Volume of ejaculation	Before to after trial
Mean	0.3667
SD	0.29165
SE	0.05325
t value	6.8861
t table	2.05
p	P < 0.05

Above table shows mean increase in volume of ejaculation of total 0.366 ± 0.29 ml which is significant at p=0.05 level.

4. Sperm count:

Mean sperm count in Trial group as per visit was as follows:

Visit	Before trial	After trial
Mean	11.6699	13.42
SD	4.038	4.8532

Paired t–test

Volume of ejaculation	Before to after trial
Mean	1.76
SD	1.12728
SE	0.20582
t value	8.5513
t table	2.05
p	P < 0.05

Above table shows increase in sperm count of total 1.76 ± 1.12 million which is significant at P=0.05.

Discussion on Observations

In clinical study, maximum numbers of cases were in between the age group 21-25 years, reflecting marriage age. After getting proper education one has to get on establishment in occupation. Man is struggling physically and mentally to get into an occupation which posses social status and other fulfilling criteria. Fear, mental tension, unwholesome food habits, improper regimen (mithyaaaharvihar) are come in way and this leads to vitiation of biological humors. Younger stage is the time of pitta doshaadhikya and along with above factor vatadosha is also vitiated. This factor can be attributed to maximum number of patients in younger age group[8].

In the observation of age wise distribution 40 % of the patients occur of age group 21 to 25, and 20% of patients occurs of age group 26 to 30. According to aacharyaCharak the age distribution for yuvavastha as 30 years and madhyam/praudhavastha is 31 to 60. In my study the shukrakshaya occurs in 60% of patients of yuvavastha this may be due to aparipakvadhatuavastha. The no. of patients occurs in praudhavastha/madhyamaavastha are 40%. By taking maximum sample size this observation can be calculated again very accurately. As per religion wise distribution in my study the maximum no. of patients are of Hindu religion i.e. 70%. This does not mean the occurrence of shukrakshaya is maximum found in Hindu religion but this is due to Demography of region. This need again maximum sample size to get more accurate observation. In my study pure vegetarian patients are 36.66% and mix vegetarian are 63.33%. As per the Rasatmakaahar variation, maximum patients taken Shukrakshayakaraahar. In the observation of Addiction wise distribution, 56.66% of the patients were addicted. This addiction was commonly about 3 to 6 years of addiction mostly. For the period of medication I advised them to stop their addiction. These addictions were of Alcoholism and of Tobbaco chewing/smoking or of both types. In patients who have the Vat as pradhanprakriti the percentage are 63.33%. In which the vat prariti patients are 26.66%, vat-pittajprakriti patients are 23.33%, and vat-kaphajprakriti patients are 13.33%. While the patients having Pitta as pradhanprakriti are 26.66% in which mainly pitta prakriti patients are 16.66% and pitta-kaphprakriti patients are 10%. Kaphprakriti patients are only 10 % occurred. This suggest that,As per Samhita granthas, the Vat prakritipurush has the Rukshata, laghuta, parushata, vishadata in their body as wel as they are having naturally Alp Bala, alp apatya (own childs), alp aayushya (age). These all snigdh, shlakshn, mrudu, madhur, saandra, guru etc are the gunas which are the gunas similar to gunas of Shukra. So the Kaphprakritipurusha are comparatively less in percentage for Shukrakshaya.

Shatavari: Guru and snigdhaguna of shatavari is similar to that of shukra. Madhur rasa of shatavari is also similar to shukra. The veerya of Shatavari is Sheet in nature and the Vipak of Shatavari is madhur, both these are as equall of ShukraGunas, so they all are helpful for increasing the Shukradhatu by Saman gun siddhant. As per modern experiments Shatavari has the contain Sugar, glycosides, saponin, sitosterol. According to web search- pure 9, 10 dihydrophenanthrene has been shown to interact with androgen receptors and may therefore inhibit androgen dependent prostatic growth; the 25 shatavrin (the steroidal saponin) may be responsible for the hormonal like effect of Shatavari for traditional use as Reproductive tonic.

Goghrita: Madhur rasa, guru and snigdhaguna of goghrita are similar to shukraguna, which result in increasing of Shukradhatu by Saman gun siddhant. Shatavari, goghrita and godugdha does not have

any opposite guna to that of shukra. According to samanyasiddhanta when samanguna meet together they increases the saman gun dhatu, Hence gunasamanya is responsible for increase in vyaktashukra. This shukravriddhi has occurred in 30 days and shukra is the last dhatu to form. Thus shukravriddhi occurs after the nourishment of all dhatus. ksheerdadhinyaya may be responsible for this vriddhi. According to modern science it indicates that all the patients may have temporary oligospermia. There is Aashraya - Aashrayi relationship between shukra and kapha. Hence the dravya which increases kapha also increases shukra. Most of the properties of vrishyashatavarighrit are similar to kapha and this may be responsible for increase in shukradhatu. Honey is yogvahi in Vrishya Shatavari Ghrit and yogvahidravya when mixed with drug increases the action of that drug. Honey also contains fructose and fructose is the source of energy required for the metabolism of sperm it may helpful in maintaining healthy environment in sperm and also nourishes sperm thus honey may increases lifespan of sperm. All the drugs in shatavarighrit are madhurrasatmak which is formed by prithvi and jalamahabhuta. As spermatozoon has definite shape and size it has predominance of prithvimahabhuta. The jaliyamahabhuta increases jaliya part of shukra (seminal plasma) and parthivmahabhuta increases parthiv part of shukra (sperm count). Vrishyashatavarighrit is madhur and causes bruhan in the body hence can be called as vajikarana. All drugs in vrishyashatavarighrit are sheeta (formation of cold atmosphere in body) which is useful for spermatogenesis. Oja is described as essence of shukradhatu and formation of oja increases immunity of the body. It indicates that formation of pure shukradhatu is important for general health. Ghrita contains vitamin E (Tocopherol) which has antioxidant properties. Under normal circumstances, oxidants potential of male reproductive tract and seminal fluid is maintained by adequate levels of enzymatic and nonenzymatic antioxidants, vitamins and minerals. When the production of oxidant is high, it may lead to oxidative damage of spermatozoa, hence it may decrease sperm count. Ghrita may neutralize oxidant present in male reproductive system. Hence less damage to spermatozoa occurs. All ingredients of vrishyashatavarighrit have good nutritional values; hence it is useful in nourishing all body tissue including sperms. Proper nutrition of sperm and seminal vesicles helps in their proper functioning and therefore adequate secretion.

Conclusion

Shukra can be correlated with sperm and seminal plasma both. Shukrakshaya can be correlated with oligospermia. Predominance of vata and pitta dosha in predisposing disease shukrakshaya is collaborated clinically by its mode of presentation i.e. most of the patients were from madhyamvaya (period of pitta pradhanya) and maximum were possessing vatapittaprakriti. Vrishya Shatavari Ghrit was found to be beneficial in increasing sperm count and volume of ejaculation significantly.The composition of gunasamanyaaushadha the Vrishya Shatavari Ghrit has effectively contributed for the increase of shukradhatu.

Samanyasiddhanta (samangunabhyaso hi dhatunamvriddhikaranam) was proved by the Vrishya Shatavari Ghrit on shukradhatu.

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Abbreviations:

CH.SU.	Charaka Samhita Sutrasthan
SU.SU.	Sushruta Samhita Sutrasthan
A.S.SU	Ashtanga Sangraha Sutrasthan
A.H.SU.	Asthanga Hrudaya Sutrasthan
SHAR.PU.	Sharangadhar Samhita Purvkhand
B.T.	Before Treatment
A.T.	After Treatment
M.D.	Mean difference
S.D.	Standard Deviation
S.E.	Standard Error
E.G.	Experimental group
P.V.	Pure – veg diet
M.V.	Mix – veg diet
A	Addicted
NA	Not Addicted
R.No.	Registration No.
USNDB	United states nutrient database.

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