

CONCEPT OF SHUKRA DHATU

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ABSTRACT

Individual *Purusha* consists of three *Dosha*. Seven *Dhatu* and three *Mala* which are the primary basics of the living body. *Sukra Dhatu* is considered as best among all seven *Dhatu*. *Shukra* is white, pure, excellent *Dhatu* which is located in entire body. *Shukra* is the substance responsible for systematic body activities including metabolic functions and part of which comes out of the body at the time of sexual act and perform specific functions of reproductions. Sperm along with spermatid fluid and male sex hormone are also one part of *Shukra Dhatu*. At times, two distinct terms are used to describe the male and female seed. *Shukra* universally applies to sperm.

Keywords Ayurveda, Sukra, Dhatu, Testosterone

INTRODUCTION: Ayurveda has described three basic physiological constituents of human body, viz., *Dosha Dhatu* and *Mala*. They are compared with roots of trees, as tree roots are important for its health; same like that these three constituents are necessary for human's health. Human body is composed of *Dhatu*, i.e. basic forms of body tissues *Dhatu* are seven in number, hence called as 'Saptadhatu'. They are *Rasa* (plasma), *Rakta* (formed blood cells), *Mamsa* (muscle tissues), *Meda* (fatty tissues), *Asthi* (bone tissue), *Majja* (bone marrow and nervous tissues) and *Sukra* (reproductive tissues). Human body is made up of *Sapta Dhatu* and *Shukra Dhatu* is seventh among *Sapta Dhatu*. Among *Sapta Dhatu*, *Shukra Dhatu* is considered as the Sara of all other *Dhatu*. As every *Dhatu* is located in the entire part of the body, *Shukra Dhatu* also occupies the whole body. Various scholars have quoted different description about *Shukra Dhatu sthana*.^[1]

PRODUCTION OF SHUKRA FROM SOMA: As described earlier *Bhautic*

origin of *Shukra* is considered to be *Soma* or *Jalamahabhuta*. As *Soma* or *Jala Mahabhuta* is the predominant basic elements from which *Kapha* is derived. So it can be said that *Shukra* has originated from *Jala* or *Soma Mahabhut*.^[2]

PRODUCTION OF SHUKRA FROM AHARA RASA: Beginning from *Rasa Dhatu* upto *Shukra* all the *Dhatu* are produced in a fashion of progressive evaluative metamorphosis. This means that *Rasa Dhatu* is basically produced from *Ahara Rasa* which is ingested by the action of *Jatharagni*. *Rasa Dhatu* gets converted into *Rakta Dhatu* and so on. Previous *Dhatu* is precursor to next and higher by the action of respective *dhatvagni* in it. So from *Majja Dhatu*, *Shukra Dhatu* is produced. The mode of conversion of *Ahara Rasa* into *Shukra* is explained by these hypotheses namely –

1. *Ksira-dadhi Nyaya*,
2. *Khale-kapota Nyaya*,
3. *Kedari-kulya Nyaya*
4. *Eka-Kaal Dhatuposhana Nyaya*

The ingested *Chaturvidha Ahara* converts in to *Ahararasa* after acting upon it by

Jatharagni and Bhutagni. Then the action *Dhatwagni* starts. The former *Dhatu* gets converted and divided into two portions by the action of *Dhatwagni*. They are i) *Prasada Bhaga* ii) *Kitta Bhaga*^[2]

Shukradhatu in Male and Female: The *Shukra* in women is secreted during sexual activity. However, it is not useful in *Garbhotpatti*.^[3] (Fertilization) *Shukra* (vaginal secretion) expressed during sexual activity is not capable of participating conjugation of sex gametes. *Artava* (ovum) function for fertilization, not the secretion of female *Shukra*. *Charak* commentator Gangadhar has explain need that, even female have seven *Dhatu*s as in males. *Rasa* produced from *Ahara* serially goes through *Dhatuparinam* process, producing *Shukra*. *Sushruta* commentator *Dalhanacharya* has considered *Artava* in females as *Shukra*, as it is meant for conception. Therefore, he has considered *Artava* as *Shukra* in females. *Vagbhata* clarified that *Shukra* secreted by women is useless for fertilization.^[4] It is worth nothing that during *Shukrapradurbhav*, some changes in mind and body also start to appear like hair growth on pubic and axillary region, shyness etc. *Artava* is an essential factor for conception in females, gives strength to *Shukra* and is responsible for strength and complexion. This means that *Artava* and *Shukra* are different. *Stri-shukra* and *Shukra dhatu* both are very different. Because *Shukra dhatu* is responsible for fertilization (reproduction), but *Stri-shukra* is useless for it.^[5] *Bhavamishra* has put forth the theory of eighth *Dhatu* in female. He has explained *Artava* as seventh *dhatu* and *Shukra* as eighth *Dhatu*. However, he has also not mentioned its location, attributes etc.^[6] *Chakrapani* quoting opinion of others writes that few erudite accept development of moustache as Mala of *Shukra*,

even women would have the moustache due to presence of *Shukra*, and however *Charaka* does not accept this. Moreover, *Shukra* of females does not take part in fertilization. *Sushrutacharya* describes *Moolasthan* of *Shukravaha Srotas* as *stana* and *Vrishana*.^[7] In female, breast develops at puberty. While in males, it is rudimentary. *Shukra Pravartan* and *stanya Pravartan hetu* are mostly at the psychological level. Considering *Dalhanacharya* opinion, that *Artava* is *Shukra*, the relation of *Stana* and *Shukra* becomes clear. According to the classical text, during pregnancy, *Artava* is blocked and therefore it rises upwards and splits into two parts- one forms the placenta and the other nourishes the breasts.^[8] *Shukra dhatu* in children will have *Shukra* in dormant stage. This is compared to buds of flowers, which have hidden fragrance in them. The visible appears when children reach adulthood. Properties of *Shukradhatu* the *Shukra* which is unctuous, dense, slimy, sweet, nonirritating & white (transparent) like a crystal is to be known as pure or normal.^[9]

1. Smell of pure *Shukra* is like honey.
2. Colour of *Shukra* is like oil or honey.
3. It is liquid in nature.
4. Physiological measure of *Shukradhatu* is half *Anjali*.^[9]

LITERARY REVIEW: Grammatically, the word '*Shukra*' is derived as follows:
Sucha + *Raka*+*Kram* = *Shukra*.

The derived word '*Shukra*' is having multiple meanings as Bright, White, Resplendent.^[10]

AIMS AND OBJECTIVES: To study the concept of *Shukra Dhatu* in detail and to compare, evaluate data available on *Shukra Dhatu*. To compile description of *Shukra Dhatu* and different terminology related to *Shukra Dhatu* together as explained in different classical texts.

MATERIALS AND METHODS:

Materials: Literary material, i.e., Ayurvedic classical texts (*Charak Samhita, Sushruta Samhita Asthang Hridaya, Asthang Sangraha and Kashyapa Samhita*) and commentaries along with Modern Ayurvedic texts and books of physiology were reviewed to collect the data during work.

Methods: Literary data collected were compared and analyzed on classical background to find similarities, dissimilarities and its clinical approach in accordance to modern science.

DISCUSSION: Semen is pervaded all over the sentient body like juice in sugar cane, ghee in curd and oil in sesamum (seeds). The same is discharged from its seat during (sexual) union of man and woman due to pressure, action and determination like water from the wet cloth. Exhilaration, thirst (for sex), instability, sliminess, heaviness, subtleness, outward tendency and impulse of *vayu*- these eight factors lead to the discharge of the semen from the body which is known as the material substratum of the moving and omnipresent soul. Black gram germinated, clean and dehusked together with seeds of *Kapikacchu* should be put into the soup of buffalos meat having plenty of ghee, curd and pomegranate seeds and added with coriander, cumin and ginger in proper doses. This eaten and drunk provides indestructible semen. (*Vrishyamahishrasa*)

According to *Sarngadhara Shukrala Dravyas* are the drug which increase the quantity of *Shukra* (semen) are *Shukrala* (semenogogues), for example, *Aswagandha, Musali, sharkara and Shatavari, ksira, masa. Bhallataka-phalamajja and Amalaki* not only increase semen but also help in ejaculating it out. Woman is stimulator of the semen, fruits

of *Brhati* expel it, *Jatiphala* withholds it longer, while *Haritakidries* it up and *Vajikarana* is the drugs which increase sexual desire are *Vajikara* (aphrodisiacs), for example, *Nagbala and Kapikacchubija*^{[11][12]}

Phalaghrta is the ayurvedic formulation described by *Bhavaprakash* which is broadly used in male & female infertility and all the ingredients of *Phalaghrta* are act on *Shukravahasrotas*. Male progeny with extended span of life can be expected *Bhavaprakasha* described two *Vajikaranayog in Vajikaranaadhyaya are Rativardhanayog and Vanarigutika*, These preparations contents are, *Kapikacchu, Aswagandha, Musali, Goksura, Satavari. Bhavaprakasha* told regarding to these preparation that premature ejaculation is controlled on its use and enhance capacity of sexual intercourse like a horse.^{[13][14]} The *sukra* provides steadiness, ejaculation, affection, body strength and helps in erection (of the penis), as well as procreation. The production of testosterone depends upon male sex chromosome, which present on sperm. Testosterone is responsible for masculine characters like strong body, thick skin, strong bones, voice etc. Gerard Karsenty at Columbia University in New York city and his colleagues applied osteoblast bone cells taken from either the testes or ovaries of mice. They found that testis cells treated with bone cells increased their production of the hormone testosterone threefold. The cells from the ovaries, on the other hand showed no change in their production of the hormone progesterone and oestradiol. Karsenty's team then focused in closer by looking at osteocalcin a hormone produced by osteoblasts. They found that testis cells treated with an active form of hormone released testosterone and more of the

hormone they got, the more testosterone they produced. Injecting live mice with the hormone similarly boosted levels of testosterone in their bloodstream. To find out if this affect on testosterone production might affect mice fertility, the team knocked out the gene for osteocalcin in a group of the rodents. These modified mice had significantly smaller testes and lower sperm counts than their normal counterparts- and when the group bred them with normal females, they found that the litter size was ground half normal. Immature sperm cells have been created from human bone marrow. The breakthrough raises the possibility of manufacturing sperm that can be treatment or to restore fertility to men made sterile by cancer therapy. Such applications. Are still many years away but scientists hope to grow fully formed sperm cell in as little as three years. The research conducted in Germany is published today in the journal reproduction gamete biology. A team led by professor Karim Nayernia, from the university of Göttingen, first took bone marrow from male volunteers from the samples, they isolated mesenchymal stem cells, which have previously been shown to grow into body tissues such as muscle. using a form of vitamin A the scientists coaxed the mesenchymal cell to become primordial germ cells (PGCs) The first stage in the genesis of sperm specific genetic markers. Showed that some.PGCs had further developed into more advanced spermatogonial stem cells under hormone circumstances, these cells eventually turn into mature, functional sperm that can fertilize an egg. About 3% of original bone marrow stem cells were able to reach the point of being spermatogonial cells.^[15]

8 best supplements to boost testosterone level: *Ashvagandha*, D-Aspartic acid

,Vitamin-D, Tribulusterrestris, Fenugreek, Ginger, DHEA, Zinc .These are the substances which increase the testosterone level. *Ashvagandha* increases testosterone level 10-22% , Vitamin D-20%, Tribulusterrestris -16%, Ginger – 17%, DHEA-20%, *Swetamusli* -28% ,*Swetamusli* increase the production of testosterone , sperm count and enhances sexual desire. It is an immunostimulatory agent that improves general immunity and relieves weakness. *Swetamusli* extract has significant aduptogenic and antioxidant activity. It has been known to show a significant increase in plasma glucose level as well as plasma cholesterol and triglycerides.^[16] *Acharyacharak* told already in *chikitsasthan* chapter 2 , that all the *vajikaran* preparations like *vrishyapuplika* ,*vrishyashastikodan*,*Vrishyashastikadiyog a* enhances the body strength as well as the quantity of semen . By drinking *Vrishya Mamsagutika*, one gets indestructible semen. In the same way , boluses and soups may be prepared of other fatty meats the use of which promotes semen. In these preparations include those drugs which are described already regarding testosterone booster, which enhance the body strength as well as the increase number of sperm in semen. Also the *Vajikarnaoushadas* explained by *Acharyas and Sukrajannanamahakashaya* increases the production of Semen.^{[17] [18] [19]}

CONCLUSION: *Sukradhatu* ,the seventh *dhatu* pervaded all over the body,which is responsible for *Garbhautpadan* and have properties like *snigdha*, *pichhila*, *guru* ,*madhur*. These same is seen in semen. *Dehabala* is the karma of *Sukra*, The strength of the bone is maintained by Testosterone.By going through all of these, *sukradhatu* is correlate to Semen (Seminal fluid & Sperm) and male sex hormone.

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