

**PHYSIOLOGICAL STUDY OF SHUKRA DHATU W.S.R. TO
REPRODUCTIVE TISSUE****¹*Dr. Anjana Dixit and ²Dr. Urmila Maurya**¹Professor & HOD, Dept. of Kriya Sharir,²Assistant Professor, Dept. of Kriya Sharir,

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Corresponding Author*Dr. Anjana Dixit**Professor & HOD, Dept. of
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Singh PG Ayurvedic
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hospital, Farrukhabad, UP.**ABSTRACT**

Human body has seven *Dhatu* and is composed of microscopic cells. *Shukradhatu* is a seventh *Dhatu* of our body and located in entire body. Quantity of the *Shukradhatu* is *Ardha Anjali* in human body. Its main function is *Garbhotpadana* – reproduction. It is controlled by *Kapha Dosha*. It gets nourishment from *Majja Dhatu*. Vitiating of *Shukra Dhatu* shows *Shukradhatu Dusti* in the form of *Vridhhi – Kshaya*. This vitiation may lead to *Klaibya* – Impotent, *Aharshana* – lack of erection and infertility. So it is an important entity in context to reproduction.

KEYWORDS: *Shukradhatu, Garbhotpadana, Klaibya.***INTRODUCTION**

Human body is composed of *Dhatus*, i. e. basic forms of body tissues.^[1] *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 *Shukra* (reproductive tissues).^[2] Basically "*Shukradhatu*" is a seventh *Dhatu* of our body and the other six *Dhatu* are responsible for creating the raw material for "*Shukradhatu*" by the chain of metabolic transformations. Therefore, all the previous *Dhatus* should be of good quality and quantity for healthy formation of the "*Shukra dhatu*". Though all these *Dhatu* have their specific location in the body. All *Dhatus* have their definite location in the body without any sexual discrimination. So *Shukra Dhatu* being one among *Sapta Dhatu* is present in both the sexes. At times, two distinct terms are used to describe the male and female seed. *Shukra* universally applies to sperm, but can also apply to the entire

makeup of semen. *Artava* is the equivalent term used to mean ovum. However, *Artava* also refers to the menstrual blood, a product of *Rasadhatu*.

MATERIALS AND METHODS

The *Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Hridaya*, *Kashyap Samhita*, and available commentaries on these were scrutinized for relevant references regarding to correlation of *Shukra Dhatu* with reproductive tissue. Other all text books of *Kriya Sharir* and modern physiology texts are also used to collect information about *Shukra Dhatu* and reproductive tissue. Critical and conceptual analysis was done for the proper understanding.

AIMS AND OBJECTIVES

- 1) Physiological study of *Shukradhatu* as described in *Ayurvedic* literature.
- 2) Correlation of *Shukradhatu* with Reproductive tissue.

CONCEPT OF SHUKRADHATU

According to *Ayurveda*, *Shukra* is the terminal tissue element of the body. It considered as the *Sara* of all other *Dhatu*.

Utpatti And Poshana of Shukra Dhatu

The core nutrients of *Majja Dhatu* help in production of *Shukra Dhatu*. *Shukra Dhatu* is formed as *Posaka* (unstable) *Majja Dhatu* flows through the *Shukravaha Srotas* into the *Shukradhara Kala* and is digested by the *Shukragni*.^[3] *Charak Samhita* had a very different view regarding in the nourishment of *Shukradhatu*. The unctuous substance to that *Majja* thereafter gives rise to *Shukradhatu*. Porosity of bone is caused by *Vayu*, *Akash* etc and through these porous holes, exudation *Shukra* takes place. This happens on the analogue of the exudation of water through the porous walls of new earthen pot.^[4]

Utpatti Kala

According to *Sushruta*, It takes one month for generation of *Shukradhatu*. *Parasara* opines that food becomes *Rasa* on next day, *Rakta* on third day, *Mamsa* on fourth day, *Meda* on fifth day, *Asthi* on sixth day, *Majja* on seventh day and *Shukra* on eighth day.

Predominance of Panchmahabhuta In Shukradhatu

Shukra is originated from *Jalamahabhuta* and is considered as *Saumya* as per *Sushruta*.^[5]

Measurement of Shukradhatu

Physiological measures of *Shukradhatu* is half *Anjali*.

Location of Shukra Dhatu In Body

It present in entire body.

Shukravaha Srotas

Principle organs of *Shukravaha srotas* are testes and penis. *Mulasthana* of *Shukravaha srotas*, are principle organs as far as *Shukradhatu* is concerned. For this reason they have to be including in loctions of *Shukradhatu*.

PROPERTIES OF SHUKRADHATU

According to *Charaka Samhita* *Shukra* unctuous, viscous, slimy, sweet, non-burning and white like rock crystal should be taken as pure.^[6] According to *Susharuta Samhita* semen is seen with eyes hence almost all compendia describe its properties; *Shukra* is cool, fluid, white, crystalline, smelling honey-like, to be fertile. Extreme unctuousness is its chief property of *Shukradhatu*, which is capable of offering strength to the body.^[7]

FUNCTIONS OF SHUKRADHATU

The prime function of *Shukradhatu* is *Garbhotpadana*. Other important functions of *Shukra Dhatu* are as followings—^[8]

1. *Dhairya* – *Shukradhatu* develops patience and courage. It provides capacity to fight against conditions which are related to the physical and mental alertness. In *Klaibya*, one can find loss of this function of *Shukradhatu*.
2. *Chyavan* – It means ‘to secrete’ or ‘come out’ and is described as timely ejaculation, which suggests *Maithunagata* function of *Shukradhatu*.
3. *Dehabala* – *Shukradhatu* provides physical strength and develops working efficiency. It includes both *Deha-Utsaha* (Enthusiasm) as well as *Deha-Upachaya* (Physical fitness).
4. *Beejartham*– It means ‘Responsible factor for production of off-springs’ and *Shukra Dhatu* has this potential very well. When it combines with *Shonita* in female uterus under the favorable condition, it can develop as a fetus.
5. *Preeti* – *Shukra Dhatu* produces lust, love and sexual instinct or desire to co-habit with the opposite sex.
6. *Harsha*- This term denotes different meanings, e.g. *Anand*, *Romanch*, *Kaam* and *Tushti* etc which all are related to deriving curiosity and pleasure about repeated sexual acts.

Harsha is also defined as development of sexual thoughts and maintenance of erectile state of penis.

Upadhatu of Shukra Dhatu

According to *Charaka Samhita*, *Shukradhatu* is the purest *Dhatu*, hence it has no *Upadhatu*.^[9] According to *Sharangdhara Samhita*, *Oja* is the *Upadhatu* of *Shukradhatu*.^[10]

Mala of Shukra Dhatu

Shukra Dhatu is a pure *Dhatu*. *Sushruta* has compared *Shukra Dhatu* with pure gold. Gold when heated thousand times and purified, cast off no residue. In the similar way *Shukra Dhatu* is processed by *Agni* and hence it do not have any waste product. According to *Sharangdhara Samhita* mustache, hair on the skin and acne are waste products of *Shukra Dhatu*.^[11] According to *Ashtang Hridaya*, *Ojas* is the *Mala* of *Shukradhatu*.^[12]

Virudhi of Shukra Dhatu

When *Shukra* increases beyond limits, it produces *Atikaama* or increased interest in sex and *Shukraashmari* (seminal calculus).^[13]

KSHAYA OF SHUKRA DHATU- Diseases due to vitiated Semen / reproductive system

Difficulty in ejaculation of semen. Ejaculating little quantity of semen after a painful coitus. Weakness, early ageing symptoms with dry skin and wrinkles on face and body, anaemia, weak muscles, getting tired easily even after little exertion, impotence or erectile dysfunction, absence of semen ejaculation.

SHUKRA DHATU SARATA

According to *Charaka*; Gentleness, gentle look, milky white sclera, good sexual capacity, unctuous round, firm, even and compact teeth and have pleasant and unctuous complexion and voice. These people are lustrous and have prominence of gluteus region should be known as *Shukra Sara*. They are liked by women for enjoyment and have strength happiness supremacy health wealth respect and good progeny.^[14] According to *Sushruta*; *Shukra Sara* person is known to possess unctuous compact and white bone teeth and nail and has excessive sexual desire and children.^[15]

SHUKRA IN CHILDREN

Children will have *Shukra* in dormant stage. This is compared to buds of flowers which have hidden fragrance in them. The visible *Shukra* appears when children reach adulthood.

STRI-SHUKRA

The *Shukra* in women gets secreted during sexual activity. But this is not useful in *Garbhhotpatti*. According to *Acharya Sushruta*, when two women engage themselves in sexual act, Overcome by lust and ejaculate *Shukra*, then that gives rise to formation of fetus devoid of bones. According to *Acharya Vagbhata*, *Stri –Shukra* and *Shukra Dhātu* both are very different. Because *Shukradhātu* is responsible for fertilization. But *Stri- Shukra* is useless for it. According to modern science the only fluid sequestered forcibly at the onset of orgasm which fill the glandular vestibularis major (bartholien glands) when these glands begin to secrete immediately sexual excitement manifests.

SHUKRA DHATU AS REPRODUCTIVE TISSUE

According to *Acharya Sushruta*, flower bud emits fragrance only when it blossoms, this doesn't mean that there is absence of fragrance in the bud. Similarly *Shukra* does not show its presence in childhood, but as the age proceeds it shows its presence. It does not mean that *Shukra* is absent in childhood stage. One of the most striking points is the presence of *Shukra* in both male and female, which is exhibited in male by appearance of hairs on face and genital organs and with the appearance of menstruation in female. On analyzing the cause for these changes it becomes evident of pubertal changes i.e., onset of reproductive life and it is the time when gonads develop endocrine and gametogenic functions.

The main functions attributed to *Shukra* are *Praharsha* (excitement, orgasm), *Dhairya* (psycho-physiological daring), *Preeti* (affection towards opposite sex, sexual urge), *Chyvana* (to secrete), *Bala* (psycho physical energy or strength), *Garbhotpatti* (fertility). Maximum of above said functions infer about the androgenic nature of *Shukradhātu*. Function of *Sukradhātu* is *harsh*, *Preeti*, etc can be correlated with hormonal activity. Sex hormones are produced locally in testis in male and ovaries in female and systemically by the adrenal glands which are regulated through hypothalamo-pituitary gonadal axis. Disturbance at any stage will lead to sexual dysfunction.

DISCUSSION

Its main function is *Garbhhotpadana* – reproduction. *Ayurveda*, the process of conception needs a healthy sperm, a healthy ovum and a healthy uterus. Thus the vitiation of *Shukra* (semen) may be leads to no conception and abortion or miscarriage. Progeny may be sterile, short lived and disfigured. Sperms along with semen and male sex hormone are also one part of *Shukra*, parallel to which female possess *Artava* and female sex hormone. The importance

of *Shukradhatu* for sustenance of life along with its earlier enumerated functions and presence in the both sexes, It seems to be description of entire endocrine orchestra specially Hypothalamic-Pituitary axis. It can also be equated with Prostaglandins, since these are also present in every cell and play important role in reproduction. Thus, *Shukradhatu* is the best term to describe the factor that nourishes both the male and female reproductive tissues and its secretions.

CONCLUSION

Form above all discussion, conclusive points can be presented as follows:- As *Shukra Dhatu* is end product of *Dhatu Parinaama* or formation of *Dhatu*, it is considered as essence of all *Dhatu*. Hence its level in body has to be maintained very carefully by consuming nourishing foods and leading a healthy life. It is compared with male and female reproductive system and its secretions. There is a reproductive tissue in the body, called *Shukra dhatu*. Its main function is *Garbhotpadana* – reproduction.

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