

CONCEPT OF SHUKRA DHATU W.S.R. TO SHARIRKRIYA - A REVIEW ARTICLE

Dr. Likhkar Upesh Madhukar*

Assistant Professor, Department of Kriya Sharir, Faculty of Ayurvedic Science Jayoti
Vidyapeeth Women's University, Jaipur.

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*Corresponding Author

**Dr. Likhkar Upesh
Madhukar**

Assistant Professor,
Department of Kriya Sharir,
Faculty of Ayurvedic
Science Jayoti Vidyapeeth
Women's University, Jaipur.

ABSTRACT

There are seven basic types of *dhatu*s in a human body. *Shukra* is one amongst them which is also one amongst the *dasha pranayata* (10 vital places where life is situated in body) mentioned by *charaka*. *Shukra* is the mainstay of *Prajotpadana*, that is raising a progeny. *Shukra kshaya* produces inability of *prajotpadana*. In today's modern era, increasing stress and changing lifestyle have made Infertility a subject of excessive concern. Understanding *dhatu* is important to understand the underlying pathology of disease. So It is necessary to understand the normal *Shukra dhatu* to get the knowledge of its abnormality. A healthy *Shukra dhatu* leads to capability of produces healthy progeny.

KEYWORDS: *Shukra dhatu, Prajotpadana, Pranayata, Shukra Kshaya.*

INTRODUCTION

Ayurveda, the science of life, has beautifully coined its *prayojana* very clearly. Health is the first priority to lead a good life. To maintain health and prevent the healthy one from going towards the disease condition, is the prime objective of Ayurveda.

Ayurveda is the most ancient and comprehensive literary composition. *Vajikarana* is one of the eight branches of Ayurveda which deals with *shukra dhatu* related topics. *Prajanan* or Reproduction is the foundation for inducing healthy and continuum society.

AIMS AND OBJECTIVES

1. To re-evaluate and elaborate the various Ayurvedic concepts related to *Shukra dhatu*.

2. To compare and evaluate literary data available on *Shukra dhatu*.

STUDY TYPE

It is a conceptual literary search.

MATERIALS AND METHODS

Ayurvedic texts, mainly *Charak Samhita*, *Sushrut Samhita*, *Ashtang Hridaya*, *Ashtang Sangraha*, *Sharangdhara Samhita*, and their commentaries, Modern physiology textbooks, websites and articles related to the topic were reviewed to collect the literary material. The compiled data was compared and presented to explore the knowledge of *Shukra dhatu* and conclusions were drawn at the end of study.

Literary Review

Shukra dhatu is the seventh *dhatu* of the body. *Shukra* is the best amongst all the seven *dhatu*s. The word *shukra* is derived from the root “Such ruk” Which literally means lucent or pure. Word. *Shukra* also denotes white colour. *Shukra* word is comprehensively used as it expresses purity, holiness, white colour, regeneration power.

Body substance which comes out during coitus is, *Retas*’ (*Shukra*).

Retas, *Bala*, *Beeja*, *veerya*, *Majjasamudbhava*, *Anand prabhava*, *pumsatva*, *Indriya*, *Paurusham*, *Teja*, *Pradhan-Dhatu* are the synonyms of word *shukra*.

Utpatti of Shukra Dhatu in Garbhavastha

In the first month of gestation, immediately after combination of *shukra* (sperm), *Shonita* (Ovum) and *Atma* (*jeeva*), fertilized *garbha* begins to grow. This growing *garbha* is *khetabhuta* (turbid) and complex combination of *Mahabhutas* and seven *dhatu*s. *Khetabhuta* (turbid) *garbha* resembles gelatinous *kapha*.^[1]

It is also the carrier of seeds of *dhatu*s from which all *dhatu*s (including *shukra* also) and organs of body develop. Thus, genesis of *Shukradhatu* takes place in the early embryonic stage since *Garbhavastha*.^[2]

Bhautik Utpatti of Shukra dhatu^[3,4]

Like all other substances, *shukra dhatu* also has its origin from *panch Mahabhutas*. But according to *Vyapadeshastu Bhuyasa siddhant*, Genesis of *shukra dhatu* takes place from the

substances which are predominant in *soma* or *jaliya tatva*. So it is considered as an *Apya dravya*.

Shukra Dhatu Poshana

Metabolism of *Majja Dhatu* is responsible for the synthesis of three constituents. –

- *Sthoola bhaga Majja Dhatu*
- *Sukshma Bhaga Shukra (Poshak Shukra – Which is the precursor of Shukra Dhatu.*
- *Mala*

The *poshak shukra* thus formed is brought to *shukra vaha srotas* and due to the action of *shukradhatwagni*, *poshya Shukra Dhatu* is formed.^[5,6]

Location of Shukra Dhatu

As *Ghrit* is present in milk or curd, sugarcane juice in sugarcane and oil in *Tila* (Sesame seeds), similarly *shukra* pervades throughout the body.^[7,8]

Shukradhara kala is present in *vrishana* (testes) as well as in every part of the body.^[9]

Shukravaha srotas

Transportation and ejaculation of *shukra dhatu* takes place in *shukravaha srotas*.

According to *sushruta*, *stana* and *vrushana* and according to *charak*, *vrishana* and *sheph* (penis) are the *moolsthana* or roots of *shukravaha srotas*.^[10,11]

Sushrutacharya in *sharir sthana dhamani Vyakaran adhyaya* mentioned 24 *Dhamanies* arising from *nabhi*, amongst which 10 spread upwards, ten downwards and four sideways. The 10 which spread upwards divide into 30 branches and 2 of these branches carry *shukra*. (Thus, these 2 branches of *dhamanies* can be included into *shukravaha srotas*). These two *dhamanis* carry *shukra* from *stana* (breast) in men & these only carry *stanya* (breast milk) from *stana* (breast) in women.

10 *dhamanis* spreading downwards are also divided into 30 branches amongst which two are meant for production of *shukra* in testes and two are meant for its elimination.^[12]

Parinati kala

Time taken for the transformation of successive dhatus from its nutrients in Ahara rasa is called as Dhatu Parinati kala or Dhatu poshana kala.

According to Acharya Charak *Dhatu* transformation and nourishment is a cyclic and continuous process.^[13]

But it is not possible to suggest a definite time of *dhatu* formation because it depends upon the strength of *Agni*. Example of wheel used for fetching water out of well can explain this better. While fetching water by pulling the rope fixed around the wheel will move faster if the person pulling water is strong and the wheel will move slowly if the person is weak. Similarly, if *Dhatvagni* is strong, transformation and nourishment of successive *dhatu* occurs rapidly and if it is weak, this process slows down. That means if *shukradhawagni* is strong the *shukradhatu* will be nourished quickly and if it is *manda*, it will take long time for nourishment of *shukradhatu*.^[14]

Sushruta has also explained this concept with different examples. According to him, *Dhatu gati* (or *Dhatu paka Gati*) i.e. movement of *Dhatu* is similar to that of waves of Sound, light or water.^[15]

The waves of water moves slowly and on this analogy it takes 1 month for *rasa* to be converted into *shukra*. (This happens when *Dhatvagni* is weak). The waves of sound are faster than those of water but slower than those of light, and on this analogy the process of transformation of *Rasa* into *shukra* is neither too fast nor too slow. (this happens when *Dhatvagni* is moderate).

The waves of light are fastest and on this analogy transformation of *rasa* in to *shukra* takes place rapidly (This happens when *Dhatvagni* is very strong.)

According *sushruta*, *ahara rasa* stays for 3015 *kala* in every *dhatu* and following this. *Rasa* gets transformed into *veerya* in men and into *Artava* in women in 1 month.^[16]

According to some *acharyas*, it takes one *ahoratra* (24 hours) whereas according to some others, it takes 6 days, and some others suggest that it takes 1 month (30 days) for the transformation of successive *dhatu*s following the sequence of *Rasa*, *Rakta*, *Mamsa* etc and for food to be converted into *shukradhatu*.^[17]

Properties of Shukra dhatu^[18,19,20,21]**• Snigdha, Pichchila & Ghana (bahalam)**

Shukra dhatu is *snigdha* or unctuous, as it is predominant in *Jala mahabhuta*, and *snigdha* is a distinct property of *Jala tatvas*. *Pichchila* property indicates sliminess or adhesiveness of *shukra* and *Ghana* property indicates its viscosity or thickness. *Pichchila* and *Ghana* property helps to bind *shukra* molecules together whereas *snigdha* property provides lubrication for smooth and uniform flow of *shukra*, so that it can traverse easily across vagina and unite with ovum.

• Guru and Drava

Guru means heavy. It indicates *prithvitatva*. Because of this property, substances acquire natural down fall. *Drava* means liquid. Again, *Drava* is a distinct property of *Jala mahabhuta*. Because of these two properties, *Shukra* can flow in downward direction and ejaculate easily.

• Varna of Shukra

Varna of *Shukra* according to *charak* is *shweta*, *sphatikabham*, and according to *sushruta* it is *sphatikabham* as well as *Taila-kshaudranibham*. Whereas, according to *Vaghat*, it is *shukla* and *Ghrita-makshika Tailabham*.

These *Varnas* can be understood as follows:

Colour of freshly voided *shukra dhatu* looks crystalline white i.e. *sphatikabham*, *shukla* or *shweta*. But, when voided *shukra* is allowed to stand for few minutes, it liquefies, it looks like oil or honey i.e. *taila kshaudranibham*.

• Rasa of Shukra: Madhur

Taste of *shukra dhatu* is suggested to be *Madhur* or Sweet.

• Gandha of Shukra: Avistram, Madhugandhi

According to *charak shuddha shukra* is *Avistra* i.e. it is devoid of any putrid smell, whereas according to *sushrut* it is *madhu gandhi* i.e. it possess the smell like honey.

• Bahu

It indicates quantity. *Bahu* property indicates adequate quantity of *shukra dhatu*. In other words, during ejaculation adequate quantity of *shukra* should come out. Inadequate quantity

suggests *shukrakshaya*.

- **Avidahi**

Shukra dhatu is *Avidahi*, means it does not produce any burning symptoms when it comes in contact with vaginal epithelium. *Vidah* is a *paittik dosha* which appears because of excessive *Amla*, *Kshara* and *Ushna* attributes.

Praman of Shukra Dhatu

Volume of constituents which are in fluid state or semi solid state are expressed in *Anjali Praman*.

According to *Atreya sampradaya*, *praman of shukra* is half *Anjali*.^[22] Still it is not possible to suggest *Anjali pramana* in living body.

Dhanvantari sampradaya suggest supposition of *sama–visham parimaan* of *shukra* should be done through its attributes (*Guna*) and functions (*karma*). Therefore, normal functioning of *shukradhatu* suggests *sama pariman* of *shukra*, deprived (*kshaya*) or increased (*vriddhi*) functioning infer *kshaya* & *vriddhi* types of *virkruti in shukra*.

In *charak samhita*, *Rashi* or quantity of *shukra* is expressed in *Anjali praman* and it is mentioned to be $\frac{1}{2}$ *Anjali*. But it is absurd to knowledge this *praman* in a living *sharira*. But this determined *praman* can be considered as to be the *praman of shukra* present in the entire body following *Anuman* or *Apta praman*.

Shukra dhatu karma^[23,24,25]

1. *Garbhotpadan* (Reproduction)

Reproduction is the most important function of the *shukra dhatu*. Same function is named as *Beejartha* by *sushruta*. As seed has to be fertile (*Ankurkshama*) to produce a plant, similarly *shukra* has to be *Garbhotpadankshama* i.e. fertile to produce healthy progeny.

2. *Dhairya* (Courage)

Capability of bearing physical and mental distress and facing fear, anger etc urges without getting destructed is referred as *Dhairya*. Proper functioning status of *shukra dhatu* provides courage to the individual.

3. *Chyavana* (ejaculation)

Chyavana or smooth ejaculation is the inherent function of *shukra dhatu*.

As, after reaching to a certain adolescent age *shukra utpatti* & *sanchaya* is a natural phenomena, similarly after pleasurable intercourse or an affection towards an opposite sex, ejaculation i.e. *chyavana* of *shukra* happens naturally. *Chyavana karma* of *shukra* takes place because of its *Drava* and *sara Guna*. Smooth ejaculation of *shukra* (semen) indicates normal physiology of erection of penis and ejaculation of *shukra* at proper time during coitus.

4. *Preeti* (affection)

This *karma* of *shukra* is associated with manobhav or emotion. *Preeti* word here refers to attraction towards opposite sex or lust. Because of this attraction sexual urge mating is possible. Thus, this *karma* is an objective complement to the prime function of *Shukra* i.e. *Garbhotpadan*.

5. *Dehabala* (Physical strength)

Growth of *Shukra dhatu* leads to over all development of body and enhances physical strength.

6. *Harsha* (Pleasure)

Proper development of *shukra dhatu* is able to give sexual pleasure.

If *Shukra dhatu* is not properly developed person would not be able to get aroused and enjoy sexual pleasure.

Characteristic features of shukrasara Purusha

Following are the features of *shukra sara purush*.^[26,27]

A) According to *charak*

1. *Saumya* – *Saumya* means gentle or kind. *Shukra sara* individuals have kind, quiet and gentle nature.
2. *Saumya Prekshina* – *Shukra sara* individuals have gentle and kind look. They never look *harsh* or violent.
3. *Ksheerapurna lochana* – *Shukra sara* individuals are blessed with the most delightful eyes. The *shukla* and *krishna* part of their eyes are very distinct. The *shukla* part appears so clear and white as if they are filled with milk. The essence of enchanting personality of *shukra sara* individual reflects through their eyes.

Praharsha Bahula – *Praharsha* refers to over wheeling happiness or joy. It refers to joyful sexual act in context to *shukra sarata*. *Shukra sara* individuals are favoured with good sexual capacity which gives them extreme pleasure.

4. *Snigdha-vrutta-sara-sama-samhat-shikhar dashana* – Teeth of *shukra sara* person are unctuous (*snigdha*), round (*vrutta*), stong and without dirt(*sara*), well shaped(*sama*), compact (*samhat*), and beautiful (*shikhar*)
5. *Prasanna-snigdha-varna-swara* – *shukra sara* individuals are graced with pleasant and satisfied appearance on face with unctuons complexion. They are blessed with soft and melodious voice.
6. *Bhrajishnu* – *Shukra sara* persons have radiating or lustruous look and complexion.
7. *Mahasphik* – *Shukra sara* individuals have prominent gluteal region.
8. *Strepriya-upbhog* – *Shukra sara* individuals have the power of mesmerizing other people, specially the opposite sex because of their enchanting personality, radiating complexion and melodious voice. Therefore these individuals are loved by the opposite sex. They also enjoy intercourse as they have good sexual capacity as compared to others.
9. *Balawant* - *Shukra sara* individuals have good physical as well as sexual stamina.
10. *Sukha* – *Sukha* or happiness of *shukra sara* individual is associated with sexual act. *Shukra sara* individuals are imparted with excessive sexual desire and they find pleasure in sexual intercourse.
11. *Aishwarya* – Because of attractive personality, *shukra sara* individual are popular. This provides sovereignty to these individuals.
12. *Arogya* – *Shukra sara* individuals are provided with good health.
13. *Vitta* – Having kind nature and gentle personality, these individuals can very well work in any field and make mark in the world. Thus, they can earn wealth in very short time.
14. *Samman bhaj* – *Shukra sara* individuals are respectable as they are blessed with gentle nature and kindness.
15. *Apatyabhaj* – *Shukra sara* individuals are popular in opposite sex as well as they are endowed with good sexual capacity. Thus, they have more number of healthy children.

B] According to *sushruta*:

1. *Snighda-samhat-shweta-Asthi-Danta-Nakha*

Shukra sara person have unctons, compact and white bones, teeth and nails.

2. *Bahula-kama-praja*

Shukra sara person have excessive sexual desire and this have more progeny.

Upadhatu of shukra dhatu

According to charaka samhita, *shukra dhatu* is the purest dhatu, hence it does not have

upadhatu.

According to *sharangdhar samhita*, *ojas* is the *upadhatu* of *shukra dhatu*. *Sharangdhara* was the lone compendium to mention *upadhatu* of *shukra dhatu*.^[28]

Mala of shukra dhatu

According to *sharangdhara*, *vakra snigdhatu* and *yuvana pitika* (pimples) appearing on face in youth or teenage years, are the *mala* of *shukra dhatu*.^[29]

Twak sneha is also considered as *shukra dhatu mala*.

Charaka samhita take no *mala* of this *dhatu* due to its purity.

Commentator *chakrapani* refers that in some compendium, beard is read as *mala* of *shukra dhatu*, which is not accepted. The discussion is given in the shlok below-

Shukra dhatu is the pure *dhatu*, *sushruta* has compared *shukra* with pure gold. Gold, when heated thousand times and purified, casts off no residues. In the similar way, *shukra dhatu* is processed by *agni* and hence it does not have any waste product.^[30]

However, *Ashtang Hridaya* states *Oja* as *mala* of *shukra dhatu*.

SHUKRA DUSHTI

1. Shukra Dushti Hetu^[31]

- i. *Ativyavaya* (excessive sexual indulgence),
- ii. *Ativyayama* (excessive physical exercise),
- iii. *Akala maithun* (untimely sexual intercourse),
- iv. *Ahitkara ahara vihara* (intake of unwholesome food),
- v. *Ayoni maithun* (sexual intercourse through tracts other than the female genital organ),
- vi. *Amaithun* (Abstinence from sexual rapport during appropriate time),
- vii. *Atiruksha-kashaya-lavana-ati amla-ati ushna sevana* (intake of food which are exceedingly dry, bitter, astringent, saline, sour and hot),
- viii. *Arasadnya narisangata* (sexual intercourse with women who are not passionate),
- ix. *Jara avastha*(old age),
- x. *Chinta-shoka-avistrambhata*(worry, grief and lack of confidence in the sexual partner),
- xi. *Shatra-kshara-agni-vibhramat* (injury by sharp instrument, alkalies and cauterization),
- xii. *Bhaya-krodha-vyadhikarshitat*(fear, anger and emaciation by diseases),
- xiii. *Vegaghatat*(suppression of manifested natural urges),

xiv. *Kshat-dhatunama sampradhushanata* (injury and vitiation of tissue elements)

Because of the above mentioned factors, the *doshas* individually or jointly get aggravated and reach *shukravaha srotas* and vitiate *shukra*.

1. *Shukra Dushti lakshana*^[32,33]

A. *Vata dushta shukra lakshana*

When *shukra* is vitiated by *vayu*, it becomes frothy (*phenila*), thin (*tanu*), and dry (*ruksha*). It gets ejaculated with pain and in small quantity. This type of vitiated semen does not help in conception.

B. *Pitta dushta shukra lakshana*

If the *shukra* is vitiated by *pitta*, then it becomes blue or yellow in colour (*saneela-peeta*), excessively hot (*ushna*) and putrid in smell (*putigandhi*). It causes burning sensation in the phallus during ejaculation.

C. *Kapha dushta shukra lakshana*

If the *shukra* is obstructed by aggravated *kapha*, then it becomes exceedingly slimy.

D. *Rakta dushta shukra lakshana*

Because of excessive sexual intercourse with women, because of injury or ulceration, the *shukra* gets ejaculated generally in association with blood.

E. *Avasadi shukra*

Because of suppression of the manifested urge of sex, the *shukra* gets obstructed in its course by aggravated *vayu*, thus making it *grathita* (knotty), and *avasadi* (which sinks when placed over water).

- *Dushta shukra lakshana* according to *dosha sansarga*:

Because of *vata-kapha- shukra* becomes *Granthibhuta*

Because of *pitta- kapha- shukra* becomes *Putipuya*

Because of *pitta-vata- shukra* becomes *ksheena*

Because of *tridoshas- shukra* becomes *mutra-purisha gandhi*.

2. *Shukra dushti chikitsa*

For the treatment of *shukra dushti*, following measures are mentioned in *charaka*^[34]

1. *Vajikarana Yoga*, that is, aphrodisiac recipes which are pleasant to use and beneficial.

2. *Rakta-pitta nashak yoga*, that is, therapeutic measures for the treatment of *Rakta-pitta*.
3. *Jeevaniya ghrita*.
4. *Chyavanprash*
5. *Shuddha shilajeet*.

Shukra Vruddhi

Excess libido (atistreekamata) and *calculi* (shukra-ashmari) are the lakshanas of shukra vruddhi.^[35,36]

Shukra Kshaya

Shukra Kshaya Hetu

Jara (old age), *chinta* (stress), *vyadhi* (diseases), *karma karshanat* (emaciation due to excess physical exercise), *anshana* (fasting), and *stree atinisevanat* (excess indulgence of sex) are the common causes of *shukra kshaya*.^[37]

Ayurveda suggests two modes of *shukra kshaya* in *sharira*, which are as follows-

i *Shukra kshaya occurring due to uttarottara rasa-raktadi dhatu kshaya*

Because of constant exposure to worry, grief, anger, fear, envy anxiety, intoxication and nervousness, intake of dry food, drinks and drugs by an emaciated person, fasting by a person who is weak in nature and intake of unwholesome food, *Rasa* which is the primary tissue element and which is located in heart gets diminished soon. As a result of this, other tissue elements beginning from Rakta upto shukra get diminished in that person.^[38]

ii *Shukra kshaya occurring because of ksheena shukra mainly irrespective of previous dhatu kshaya*

Chiefly *shukra dhatu kshaya* occurs because of *ativyaya* (excessive sexual indulgence), *ayoni maithun* (sexual intercourse through tracts other than the female genital organ) and *haritaki*, etc *shukrashoshak* or *shukranashak aushadhi atisevana*.^[39]

I. *Shukra kshaya lakshana*

According to *Ashtang hridaya*, delay in ejaculation (*chirat prasek*), ejaculation accompanied with bleeding, severe pain in *vrushana* (testicles) and burning sensation in urethra (*medhra dhumayana*) are the symptoms of decreased *shukra dhatu*.^[40]

According to *sushruta*, pain in *medhra* and *vrushana*, impotency (*ashakti maithun*), early or late ejaculation or ejaculation of *shukra* with blood-are the symptoms of *shukra kshaya*.^[41]

Charaka has mentioned following *lakshanas* of *shukra kshaya*- *Daurbalya* (Weakness), *mukhashosha* (Dryness of mouth), *pandutvam* (Paleness), *shrama*(Fatigue), *klaibya*(impotency) and *shukra avisarga* (delayed ejaculation).^[42]

II. *Shukra Kshaya Chikitsa*^[43]

If impotency is caused by *jara* and *shukra kshaya*, then the patient first of all should be oleated and fomented. Then after, purgation therapy with unctuous ingredients should be administered. These 2 types of impotency is treated with medicated *ghee*, *vajikarana yoga*, *yapana basti* and *rasayana yoga*.

DISCUSSION

Ayurveda has mentioned detailed physiology of *Shukra dhatu* which gives various aspects that are mentioned in modern science. As per collected data, some conditions are discussed here on the classical base. Genesis of *Shukradhatu* takes place in the early embryonic stage since *Garbhavastha*. In the beginning, *shukra dhatu* is present in latent form. As the child grows and reaches certain adolescent age, growth of *Shukra dhatu* is stimulated and from latent form, *shukra dhatu* begins to manifest. This development begins from the age of 16 years and is completed by the age of 25 years.

Reproduction is the most important function of the *shukra dhatu*. *Shukradhara kala* is present in *vrishana* (testes) as well as in every part of the body. Hence, *shukradhara kala* which is present all over the body parts produces all types of cells in the body. So growth of *Shukra dhatu* leads to over all development of body and enhances physical strength.

Thus, it is important to undertake general body examination for *shukra dhatu parikshan*, as it is localized in every part of the body.

CONCLUSION

Ayurveda, the science of life, has beautifully coined its *prayojana* very clearly. Health is the first priority to lead a good life. There are seven basic types of *dhatu*s in a human body. *Shukra* is one amongst them. Ayurveda has laid much importance on a reproduction. *Prajanan* or Reproduction is the foundation for inducing healthy and continuum society. *Shukra* is the mainstay of *Prajotpadana*, that is raising a progeny. Study of *Shukra dhatu* is necessary for increasing healthy creation and production capacity of *shukra as well as*

enhance general health. so as to prevent comprehensive diseases like *Purush vandhatva* or Male infertility.

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