ANATOMICAL CONSIDERATION OF SHUKRA DHATU: A REVIEW

Sanjay Kumar Shahu¹ Ajay² Kalpana Mehar³ Hemraj Meena⁴

¹PG Scholar (Ay) ² PG Scholar (Ay) ³ PG Scholar (Ay) ⁴ M.D. Ph.D. (Ay), Assistant Professor; P.G. Department of Sharir Kriya, National Institute of Ayurveda, Jaipur, Rajasthan, India

Email: drsanjayshahu@gmail.com

ABSTRACT

Human body is made up of seven Dhatus. Shukradhatu is located in entire body. Shukra is white, pure, excellent Dhatu, which is considered as best among all seven Dhatus. All Dhatus have their definite locations in the body; sperm along with spermatic fluid and male sex hormones are also one part of Shukradhatu, parallel to which females possess Artava. Pramana of Shukradhatu are half Anjali. Any deviation in Shukradhatu (waning or increment) leads to pathogenesis. Vitiation of Shukradhatu shows Shukradhatudusti (pathology) in the form of Vridhhi (hyper state) Kshaya (waning). This vitiation may leads to infertility. So it is an important entity in context to reproduction.

Keywords: Shukradhatu, Semen, Hormones

INTRODUCTION

Definition of ‘Shukra’:- Shukra is the substance which is responsible for all systemic body activities including metabolic functions and part of which comes out of the body at the time of sexual act and performs specific functions of reproduction. It is the product of four proto elements, Vayu, Agni, Aapaa nd Prithvi with all six Rasa.¹

Mahabhautic composition:- Shukra is Saumya, which is derived from Jala Mahabhuta (Su. Sha. 3/2) but Charakacharya consider that Shukra contain all the bhutas except Akash.² All the four bhutas (Vayu, Agni, Prithvi and Ambu) individually share one fourth of the attributes of each of the Mahabhutas.

Embryological origin: Shukra is pittrija bha-va.³

Doshik configuration: Shukra Dhatu is counted as a Kapha Vargiya Dravya according to Harivansha Purana and also Acharya Vagbhata stated Shukra as Ashraya Sthana of Kapha Dosha⁴

Rasa of Shukra: Shukra Dhatu possesses Shadrasa.⁵
**Shukra is one of vital spots of life:** *Shukra Dhatu* is one of Pranayatanas of Sharira.

**Shukra is one and ultimate Dhatu of body:** *Shukra* is seventh in order of *Saptha Dhatu* and quintessence of all *Dhatus*. *Shukra* is produced as result of successive evaluative metamorphosis of *Ahara rasa*.

**Quantity of Shukra:** Quantity of the *Shukra dhatu* is *Ardha* (½) *Anjali* in human body as per Acharya Charaka.

**Aims and objectives:**
- Anatomical study of *Shukradhatu* in our body.
- Corelation of *Shukradhatu* with *Semen*.

**DISCUSSION**

**SHUKRA AS SEMEN-** *Shuddha Shukra Lakshanas* resembles the physical properties of the seminal fluid. *Garbhottpadana* i.e., fertilization is a prime function of *Shukra*. *Garbha* is formed by fusion of *Shukra* and *Artava*. This main function of *Shukra* is attributed to spermatozoa. While enumerating *Shukra Pradoshaja Vikara*, it has been stated that, the vitiation of *Shukra* hampers one’s fertilizing capacity.

*Semen* is ejaculated during sexual act. It consists of sperms and the products of accessory sex organs-seminal vesicles, prostate gland and bulbourethral glands. The fluid part of semen is contributed by prostate gland and seminal vesicles. The prostate secretion gives milky appearance to semen and the fluid from seminal vesicles and mucus glands provides mucoid consistency to semen.

**Spermatozoon** (pleural = spermatozoa) is the last descendant of the male germ cell; developed in the testes. It is also called the sperm. The matured spermatozoon is 60 long, is equal to that of the nucleus of the ovum. Mature spermatozoon can be commonly divided into head neck body and tail. Head is oval shaped (in front view), it is elastic and measures about 4-5 m in length and 2.5 to 3.5 m in diameter. The head is connected to the body by a short neck. Body is cylindrical with a length of 5 to 7 m and the thickness of 1 m. The tail of the sperm consists of two segments. The chief or main piece of tail-It is enclosed by cytoplasmic capsule and it has an axial thread. It is 40 to 50 long. The terminal or end piece of tail (Flagellum)- It has only the axial filament; about 5 m long.

![Diagram of Sperm Structure](image-url)
SHUKRA AS HORMONE- 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.8

Vagbhata, a step forward, even mentions the age 17 in male and 12 in female for appearance of these changes and also mentions that till 70 years in men and 50 years in women, these changes lasts9. 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.

Spermatogenesis in human testis starts from 7th week of gestation. during first three months after birth testosterone level rises and then fall by 1st year and remain low (but slightly higher in males than in females), until onset of puberty. In males, normally, plasma testosterone concentration reaches adult level at approximately 17 years of age and maintained until late middle age and decrease slowly at the age of 70.10 The main functions attributed to Shukra are Praharsha (excitement, orgasm), Dhairya (psychophysiological daring), Preeti (affection towards opposite sex, sexual urge), Chyvana (to secrete), Bala (psycho physical energy or strength), Garbotatti (fertility).11 Maximum of above said functions infer about the androgenic nature of Shukra.

Shukradhara Kala is said to pervade the whole body of a human being. This can be interpreted as gonoidal secreting membrane, testicular germinal epithelium and accessory sex glands functions in total. Male hormones are produced locally in testis and systemically by the adrenal glands which are regulated through hypothalamo pituitary gonoidal axis. Disturbance at any stage will lead to sexual dysfunction. Impotency and lack of desire for sexual act (Klaibya and Aharshana) are the major conditions caused by morbidity of Shukr12. Both the above are purely under the control of androgen (testosterone) and nowhere related to seminal fluid.

SHUKRA AS RETAS- The term Retas is derived from root “Ri-Ksharane” which means to flow and is defined as the substance which flows out of the body during sexual intercourse.13 Sushruta while describing Vajekarana uses the term Retas which is implied in the sense of semen.14 Charaka and Vagbhata forbid holding the urge to ejaculate Retas, in this context Retas-obviously means semen.15 The physical characteristics of Retasas mentioned by Charaka match exactly with that of semen.16 There are many examples where Shukra and Retas are quoted as two different entities; hence Retas signifies semen and Shukra denote a broader concept incorporating Retas.17

SHUKRA AS VEERYA- The term Veerya is derived from root “Vira Virkrante” which means Victorious18. Hemadri com-
ments that “Shaktiyautkarshe Veerya Shabda Lokc Api Prasiddha”19 which is commonly used in vernacular language to denote strength. Charaka and Sushruta define Veerya is the part of the substance by virtue of which it manifests its action20. The term Veerya is also used to mean potency21, so Veerya signifies various factors responsible for sexuality and secondary sexual characteristics. Charaka considers Veerya as subject of inference22 which can be drawn on the basis of Uthana. Chakrapani comments on Uthana as undertaking of any work and Monier Williams defines it as act of standing up.23

In the present context, Uthana can be taken to mean erection. Therefore from the above discussion for the purpose of clarity we may assume that Shukra denotes whole testicular and accessory gland secretion i.e. semen and androgens. Hence, Retas has been specifically used for ejaculate and Veerya for androgens.

**SHUKRA IN FEMALE**- Human body is made up of Seven Dhatus and the last being the Shukradhatu; therefore the women should also possess Shukradhatu in their body. According to classics Shukra in female is not capable of Garbhottpadana24 as in males, but Stree also ejaculate Shukra during the act of coitus. 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 manifests25. According to Sushruta appearance of axillary and pubic hair and breast changes in females is due to Shukra26.

Androgens are continuously secreted by adrenal cortex in both male and females. Much of the growth of the public and axillary hair in the female probably results from the action of these hormones. From the above discussion we can infer Stree Shukra as some glandular secretions along with hormones.

**CONCLUSION**

After this discussion it is conclude that

1. Sukradhatu is present in all over body.
2. Sukradhatu has garbhotpadak property and sperm also so we can compare it.
3. Function of Sukradhatu is harsh, preeti, etc can be correlated with hormonal activity.

**REFERENCES**

1. Agnivesha Charaka Samhita 2/4 vidyotini hindi byakhya chaukambha bharti akadamy Varanasi page no 837
2. Agnivesha Charaka Samhita 2/4 vidyotini hindi byakhya chaukambha bharti akadamy Varanasi page no 837
3. Agnivesha Charaka Samhita 3/7 vidyotini hindi byakhya chaukambha bharti akadamy Varanasi page no 856
4. Vahata or Vridhha Vagbhata, Ashtanga-Samgraha Sutra sthan 19/13
5. Agnivesha Charaka Samhita 2/4 vidyotini hindi byakhya Chaukambha bharti akadamy Varanasi page no 837
6. Agnivesha Charaka Samhita 7/15 page no 915
7. Sushruta Sushruta Samhita with Nibandha Samgraha commentary by Dalhana-


10. Griffin and Wilson 1983


12. Agnivesha Charaka Samhita revised by Charaka and Dridhbala with Ayurveda Deepika commentary by Chakrapani, edited by Vd. Jadavji Trikamaji Acharya Chaukhambha Surabharati Pub-

13. Shabda Kalpadruma Vol.5


18. Shabda Kalpadruma page 374
19. Vahata or Vriddha Vagbhata Ashtanga-Samgraha with the Shasheelekha Sanskrita commentary by Indu Edited by Dr. Shivprasada Sharma, Published by Chaukhambha Sanskrita series office Varanasi (2006), Sutra Sthana: Hemadri commentary, 1/17; page no. 12.
24. Vahata or VriddhaVagbhata, AshtangaSamgraha with the Shasheelekha Sanskrita commentary by Indu, Edited by Dr. Shivprasada Sharma, Published by Chaukhambha Sanskrita series office, Varanasi (2006), Shareera Sthana – 1/69 page no. 275.

Source of Support: Nil
Conflict Of Interest: None Declared