

## Ayurvedic approach of semen analysis

**Dr. Tarannum<sup>1</sup>, Dr. Reshma rani<sup>2</sup>, Dr. Jaya Srivastav<sup>3</sup>, Dr. Vedmani Pandey<sup>4</sup>, Dr. Shoab Ahmed<sup>5</sup>**

*(1.M.S.(Ayu) scholar Prasuti Tantra Evam Stri Roga , State Ayurvedic college and hospital Lucknow*

*2 .M.d.(Ayu) prasuti tantra evam stri roga and lecturer , P.G. dept. of Prasuti Tantra Evam Stri Roga State Ayurvedic college and hospital Lucknow U.P.*

*3.M.D. ,Ph.D, (Ayu) Prasuti Tantra Evam Stri Roga ,B.H.U., and lecturer P.G. dept. of Prasuti Tantra Evam Stri Roga State Ayurvedic college and hospital Lucknow .*

*4. Medical officer, M.D.( Ayu), Jivaka award, Rajkiye Ayurvedic chikitsalaya ,Tiloi ( shahmau), Amethi .*

*5. R.A.V. scholar (kshar sutra evam kshar karma ), jagat hospital una ,Himachal Pradesh .*

Date of Submission: 10-10-2021

Date of Acceptance: 22-10-2021

**ABSTRACT-** Ayurveda is a health promotive, preventive, nutritive and curative science. In our Upnishad there are three type of eshanaye which is vittaashnaa, putraashnaa, lokaashnaa. Putraashnaa can be achieved only when healthy men healthy women and healthy environment. The concept of healthy men in putraashnaa refers as healthy sukra . In Ayurveda synonym of sukra is retas, virya, bija . We can correlated sukra in modern science with the whole testicular secretion comprising of sperm and the androgen . Retas can be correlated with semen and virya with androgen . We can correlate bija with the spermatozoa .In Ayurvedic text there is detailed description of sukra examination i.e. semen analysis . Ayurveda. Explain the sudha sukra character briefly. There is 8 type of sukra dushti. Sukra dusthi explain the different pathological Condition of semen . These characters helps us to analysis of semen .

*Key words – sukra pareeksha , retas pareeksha , sukra dushti , sudha sukra laxan*

### • Introduction

Have you ever thought what would happen if we were not able to reproduce, if not then give a thought. In nature every living system has been awarded a magical power to reproduce. According to Ayurveda factors responsible for conception is Ritu, kshetra, ambu, bija<sup>1</sup>. Any abnormalities in one of them may cause infertility or deformity of progeny. Conception depends on the fertility potential of both male and female partner. According to Indian society of assisted reproduction, infertility currently affects about 10

to 14% of Indian population with higher rate in urban area 1 out of 6 couple is impacted<sup>ii</sup>. In today's era some significant social, physical, psychological and medical factors are affecting couple adversely by inhibiting their power to reproduce. In present era the lifestyle disorders are increasing day by day due to intake of junk food, disturbed sleeping pattern, Psychological causes, less physical work, Alcohol, smoking etc which vitiates dosha in our body. The male partner is directly responsible in about 30 to 40 % cases of infertility. Main concept of Ayurveda tridosh, saptdhathu, panchmahabhuta, if they are normal in condition then men is healthy if any abnormalities in them, then it produce disease. Saphadhathu of ayurveda are rasa, rakta, maans, meda, asthi, majja, sukra . Sukra is the end product of dhatu paaka. All these dhatu has to be protected to keep body healthy, if dhatu level imbalance then it affects the life of individual. Male infertility is mainly related with sukra dhathu dosha we can correlate it in modern science with semen abnormalities. Any abnormalities of retas may assess by Retaspareeksha, which is widely describe in our ayurveda. In all ayurvedic classic sukra dusthi is defined as under eight factor.

### • Review of ayurvedic literature–

Acharya Charak mentioned sudha sukra lakshan as Bahalam, madhuram, snigdam

avishram guru pichilam sukla bahu which helps in produce in healthy progeny .

Aacharya Susruta mention sudha sukra lakshan as sphatikabham dravam snigdham madhuram madhu Gandhi ,taila kshaudra nibham .

**Bahal**– it means thick. It denote the consistency of semen

**Madhuram** – it denotes the sweetness of semen . It is due to presence of fructose in semen which gives nourishment to the sperm.

**Snigdham**- it denotes the oiliness , it denotes the consistency

**Avishram**- it denotes the smell of semen Aacharya said the smell of semen in to pungent and Sushrut said the smell of semen is madhugandi means honey like .

**Guru** - it means heavy . We can correlate guru guna with the no. of spermatozoa in semen

**Sukla , sphatikabham** - it denotes the color of semen. According to Acharya Charka the color of semen is white . Acharya susruta is said the sperm color is sphatikabham.

**Drava** – it can be correlated with the liquefaction of the semen .

**taila , kshaudranibham**-it denotes the texture of semen . Acharya vagbhathas mentioned Ghrita tail kshaudraand they explained the color of progeny with the texture of semen if the semen is Ghritaabha then progeny is gaur Varna , if sukra is kshaudraabha then progeny color is shyaam and the color of semen is taila then color of progeny may be Krishna Varna .

#### Sukra dusthi-

According to Acharya Charak there are eight type of sukra dushti, these are phenila ,tanu ruksha ,vivarnta, picchilata ,putipuya ,anyadhatu ,upsista, avsadi<sup>iii</sup>.

Acharya susruta as mentioned 8 type of sukra Dosh these are vataj , pittaj , kaphaj , kudapganghi , ksheen sukra , putipuya , granthibhuta , mutrapurishgandhi<sup>iv</sup>.

When we compare the sukrdushti of Acharya Charak and Susruta we see all are almost same. Here we examine the semen according to Acharya Charaka and we compare sukra dushti by both the Acharya .

For the scientific basis each condition mentioned in Ayurveda has been elaborated here.

**Phenila**- This dusthi denotes the frothy semen. If the surface tension is low then it formed the froth. Surfactants are responsible for decreasing the surface tension. We can examine the phenyl guna by shaking in a sterile container. If bubbles present longer duration without bursting then it is

considered to be positive. It denotes the morphological defect in sperm.

**Tanu**– Tanu means thin. It denotes the low densities. It depends on the concentration of sperm in semen. We can correlate with this dushti with oligospermia. tanu dosha examine by sperm count.

**Ruksha** –Rukshta literally means dryness. It is difficult to explain. Ruksha is guna which cause dryness. In liquid dravya it is difficult to explain but may demonstrate pharmacologically . We can examine the rukshta by preparing a semen on a glass slide by using a semen drop and kept for drying .if semen sample is devoid of snigdhatta it dries soon it indicates the rukshta. The pH of semen increase then the time of dryness is increase so we can say that if rukshta increase then pH increase.<sup>v</sup>

**Vivarnta**-Vivarnta means discoloration of semen. If any defect on normal color of semen then it is called vivarna .Acharya said normal color of semen is sphatikabham i.e. greyish white, if any deviation from the normal color like pita, neel, arun varna may lead to sukra dusthi . It is due to infection and in Ayurveda it is due to pitta dosha .

**Table no 1- Comparison of sukra dushti said by Acharya Charak and Acharya Susruta –**

Dosha	Acharaya charaka	Achar ya susrut a	Ejaculatory finding
Vataj	Phenila (frothy)	Vataj	Discharges with difficulty
Vataj vataj	Tanu(thin) Ruksha(dryness)		
Pittaj	Vivarna (discoloration )	pittaja	Causes burning sensation in phallus
Pittaj/kapha pittaj	Putipuya(putrid smell )	Kapha pittaja (putip	Foul smell

		uya )	
<b>kaphaj</b>	Pichhila (highly viscous)	kaphaj a	
<b>raktaj</b>	Anyadhatuupsr istam ( mixed with blood / epithelial cell)	raktaja	Painful
<b>Kapha pittaj</b>	Avasaadi ( sediment)	Grathit ( kapha pittaj)	
<b>Vata pittaja</b>		Kshee na sukra (pitta kaphaj )	Painful
<b>Tridos haj</b>		Mutra purish Gandh i	Foul smell

**Ati Pichhila** - it denotes the hyper viscosity and correlated with thread like formation<sup>vi</sup>. Pichhila is normal quality of sukra and ati pichhila is dosha . We can examine the pichhila by thread forming test with the help of capillary tube<sup>vii</sup> . We can measure the length of thread formed from the semen sample. On the basis of length we can grade the viscosity. We can correlate abnormal viscosity with reduced motility of sperm<sup>viii</sup> .

**Putipuya** - it denotes the foul smell. putipuya means putrid smell . It indicates the presence of pus in the semen .This parameters may explain with the pyobacteriospermia. It may be seen in

chronic suppurative condition of genital track<sup>ix</sup> .

**Anya dhathusamsrta** - semen is consist of non spermatozoa cell such as blood , mucus , anti sperm antibodies, macrophages, epithelial cell along with spermatozoa cell then it is called Anya dhathusamsrta<sup>x</sup>.

**Avasadi**– it indicates the rate of sedimentation. When we added semen sample in the water then it disperse in to water. If the semen drop not dispersed in water either suspended or settled dhathusamsritaxi

**Method** –

For the assessment of retas pareeksha following procedure should be done

**Pre-procedure**– Some precautions must be necessary before collection of the semen sample for the semen examinations.

1. First of all stop taking alcohol, opioid , narcotic drugs .
2. A complete abstinence.
3. In case of underlying aphrodisiac therapy of other conventional therapy should be stop for a period of minimum seven days .
4. Patient are advice to take healthy food , milk product and almost 7 hours sleep.

**Procedure**- The semen is collected and then examination of the sukra according to following parameters .Ayurveda considered physiochemical features for the analysis of semen. For example, color, consistency, viscosity, density,smell, liquefaction ,time etc. Here we compare the normal sukra and sukara dusti laxana on ayurvedic and scientific parameter in table no 2.

**Table no 2 . Semen Analysis**

<b>Tabel no 2 ; Sukra pareeksha parameter</b>		
<b>Seminal parameters</b>	<b>Normal ( sudha sukra )</b>	<b>Abnormal (sukra dusthi)</b>

<b>1.Appreance and color</b>	Sphatikabham Tailanibham and kshaudranibham Suklavarna	Vivarnata Peet Varna , KrishnaVarna, Arun Varna Abnormal
------------------------------	--	--

		color
<b>2. Volume</b>	Bahu (abundant)	Alpa
		Ksheena sukra
<b>3. Liquification</b>	Drava (liquid)	Grantibhuta
<b>4. Smell or odour</b>	Madhu gandhi	Putipuya , mutrapurishgandhi
<b>5. pH</b>	Avidahi	Rukshata vidahi , anyadhata samastra
<b>6. Consistency</b>	Ghana , bahal	tanu
<b>7. Viscosity</b>	Pichhilata	Ati pichhilata
<b>8. presence of fructose</b>	Madhura	Other than madhura or alpa madhura
<b>9. Sedimentation</b>	Dissolve in water	Avasadi (settle down or floating in water

#### . Discussion

Ayurveda has mentioned two type of sukra first drista and another is adrista . Drista sukra is correlate with semen and acharya charak mentioned sudha sukra characters for drista sukra . Adrista sukra mentioned in ayurveda samhintas is present all over the body. We can correlate it with the circulating androgen . Acharya Charak has classified sukra dushti on the basis of abnormal physical characteristics of semen while Acharya Susruta has describe it on the basis of vitiated dosha . Abnormal physical characteristics of the semen can be understood by dosha involvement. Vitiating of semen due to dosha may lead to rogi , klevya, alpaayu , virupa progeny and also lead to abortion or miscarriage. In sukra dusthi of Acharaya Charaka first three dusthi phenil, tanu and ruksha are caused by the vitiated vata dosha affecting the retas. In this type of Sukra dushti

sukra ejaculated with difficulty and very less in volume and not capable of producing progeny . The next two dushti putigandha and vivarna are caused by the vitiated pitta which affects the vitiating of retas. In this type of retas dushti sukra ejaculated with burning sensation. pichhila type of sukra dusti is caused by vitiating of kapha dosha affecting the retas. putipuya and anyadhatusamsrita caused by any injury to sukravaha srotas due to excessive sexual activity, trauma etc. Avsadi dusti is caused by blockage the path of the retas due to vegasandharan . These all dushti may lead to abnormal progeny, abortion, miscarriage, infertility.

#### Conclusion

Today's era has changed people are admiring , accepting and looking towards ayurveda as a ray of hope for treatment of infertility in view of cost of effectiveness , easy availability and minimal complications . Semen analysis is one of the important tool to assess the quality and quantity of sukra dhatu. When we understand the sukra dushti including with the assessment of the sukra pareeksha with the help of these Ayurvedic sukra pareeksha , We can find the cause of sukra dushti . These tools give the exact idea of identifying the cause of infertility so that we can treat the cause and decrease the incidence of male infertility.

#### Reference

- 1 Agnivesha, charak samhita , edited by vaidya jadavaji trikamaji acharaya, 2<sup>nd</sup> edition chaukambha Sanskrit sansthan , varanasi , chikitsa sthan chapter 30/137
- 2 Sushruta samhita with ayurveda vasant dipika commentary, edited by kaviraj ambika dutta<sup>7</sup> shastri purvadha , published by chaukhambha sanskrita sansthan , Varanasi, sharer sthan 2/35 [3https://thediplomat.com/2018/05](https://thediplomat.com/2018/05)
- 3 Sushruta samhita with ayurveda vasant dipika commentary, edited by kaviraj ambika dutta<sup>7</sup> shastri purvadha , published by chaukhambha sanskrita sansthan , Varanasi, sharer sthan 4/23
- 4 Pandit kashinath shastri , dr. gourakhnath chaturvedi , charak samhita , reprint 2012, choukhambha publication , chikitsa sthan 2/4 /50
- 5 Sushruta samhita with ayurveda vasant dipika commentary, edited by kaviraj ambika dutta<sup>7</sup>



shastri purvadha , published by chaukhambha sanskrita sansthan , Varanasi, sharer sthan 2 /13  
6 Pandit kashinath shastri , dr. gourakhnath chaturvedi , charak samhita , reprint 2012, choukhambha publication , chikitsa sthan 30/137  
7Sushruta samhita with ayurveda vasant dipika commentary, edited by kaviraj ambika dutta’ shastri purvadha , published by chaukhambha sanskrita sansthan , Varanasi, sharer sthan 2 /3  
8Sreenivas PB. A Clinical Study on the Role of Svarnabhasma & Vajikarna drugs in Sukradusti with Special  
9Reference to Male Infertility. PhD Thesis. Gujarat Ayurveda University, Jamnagar; 1998.  
10 Layali , I tahmashpour e , joulaiem,jorsaraei SG,farzanegi Ptotal antioxidantand liquidperoxidationin semen of patient with hyperviscosity. Cell j 2015;16:554-9  
11Prasad BS, AN overview of male infertilityin practice , ayurvedline 2012, vol xii .p.93-9

12Layali I, Tahmasbpour E, Joulaei M, Jorsaraei SG, Farzanegi P. Total antioxidant capacity and lipid peroxidation in semen of patient with hyperviscosity. Cell J 2015;16:554- 9.  
13Acharya YT, editor. Sushruta. Sushruta Samhita. Varanasi: Chaukhambha Surabharati Prakashan; 2012. p. 344.  
14 Acharya yadav ji trikamji , editor. Susruta samhita Varanasi chaukhambha surabharati prakashan ,2012.p.344

---

<sup>i</sup>Sushruta samhita with ayurveda vasant dipika commentary, edited by kaviraj ambika dutta’ shastri purvadha , published by chaukhambha sanskrita sansthan , Varanasi, sharer sthan 2/35

<sup>ii</sup><https://thediplomat.com/2018/05>

<sup>iii</sup> Pandit kashinath shastri , dr. gourakhnath chaturvedi , charak samhita , reprint 2012, choukhambha publication , chikitsa sthan 30/137

<sup>iv</sup> Sushruta samhita with ayurveda vasant dipika commentary, edited by kaviraj ambika dutta’ shastri purvadha , published by chaukhambha sanskrita sansthan , Varanasi, sharer sthan 2 /3

<sup>v</sup>Sreenivas PB. A Clinical Study on the Role of Svarnabhasma & Vajikarna drugs in Sukradusti with Special Reference to Male Infertility. PhD Thesis. Gujarat Ayurveda University, Jamnagar; 1998.

<sup>vi</sup> Layali , I tahmashpour e , joulaiem,jorsaraei SG,farzanegi Ptotal antioxidantand liquidperoxidationin semen of patient with hyperviscosity. Cell j 2015;16:554-9

<sup>vii</sup> Prasad BS, AN overview of male infertilityin practice , ayurvedline 2012, vol xii .p.93-9

<sup>viii</sup>Layali I, Tahmasbpour E, Joulaei M, Jorsaraei SG, Farzanegi P. Total antioxidant capacity and lipid peroxidation

in semen of patient with hyperviscosity. Cell J 2015;16:554- 9.

<sup>ix</sup>Acharya YT, editor. Sushruta. Sushruta Samhita. Varanasi: Chaukhambha Surabharati Prakashan; 2012. p. 344.

<sup>x</sup> Acharya yadav ji trikamji , editor. Susruta samhita Varanasi chaukhambha surabharati prakashan ,2012.p.344

<sup>xi</sup> Acharya yadav ji trikamji , editor. Susruta samhita Varanasi chaukhambha surabharati prakashan ,2012.p.344