WORLD JOURNAL OF PHARMACEUTICAL RESEARCH
SJIF Impact Factor 8.453
Volume 13, Issue 18, 436-451. Review Article ISSN 2277–7105

A BIRD EYE VIEW ON SEMATOGOGUE (*SHUKRALA*) DRUGS OF *BHAVPRAKASH NIGHANTU*: A LITERARY SURVEY

Dr. Devraj Singh Panwar[1]* and Dr. Neha Agnihotri[2]

[1]Assistant Professor, Department of Dravyaguna Vigyana, Devbhoomi Utrakhand University, Dev Bhoomi Medical College of Ayurveda and Hospital, Faculty of Ayurveda, Naogaon, Manduwala 248007, Uttrakhand, India.

[2]Assistant Professor, Department of Rog Nidana and Vikruti Vigyana, Dev Bhoomi Utrakhand University, Devbhoomi Medical College of Ayurveda and Hospital, Faculty of Ayurveda, Naogaon, Manduwala 248007, Uttrakhand, India.

Article Received on
29 July 2024,

Revised on 19 August 2024,
Accepted on 09 Sept. 2024

DOI: 10.20959/wjpr202418-33940

***Corresponding Author**
Dr. Devraj Singh Panwar
Assistant Professor, Department of Dravyaguna Vigyana, Devbhoomi Utrakhand University, Dev Bhoomi Medical College of Ayurveda and Hospital, Faculty of Ayurveda, Naogaon, Manduwala 248007, Uttrakhand, India.

ABSTRACT

Male infertility refers to a male's inability to conceive in a fertile female. It is a common problem now-a-days because of improper lifestyle and unhealthy food habits which causes *Shukra dhatu kshaya* in youngsters. Healthy *Shukra* is responsible for healthy off springs. *Shukrala dravyas* produce healthy shukra which is responsible for *garbha dharan* (conception). *Seven dhatus* make the human body. Out of seven *dhatus sukra* is the last and purest form of *dhatus*. According to *Acharya Charaka*, *Shukra dhatus* is of half *Anjali* (self-measurement). *Shukrala karma* is mentioned by *Acharya Sharangadhara* in *Sharangadhara Samhita*, *Purvardha*, 4th chapter, *Deepan-Pachanadi Kathanam. Ayurveda* has always given importance of having healthy offspring. Many drugs have been mentioned in our science for this *karma*. Here we have screened *Bhavaprakasha Nighantu* of *Bhavamishra* for *Shukrala*, *Shukraprada*, *shukrakar*, *veeryakar dravyas*.

KEYWORDS: *Shukrala*, *Bhavaprakasha*, *Sematogogue*, Literary review.

INTRODUCTION

Shukrala means brightness, clearness, light, flame, glow, heat as per the Sanskrit root word "shuch". *Shukra* literally means semen virile, sperm, lucid, clear in human physiology, *Shukra dhatu* is a body component having reproductive capacity.[1]

Shukra dhatu is described in two forms in *Ayurveda* classics

- The one that is ejaculated during the process of mating, which is responsible for fertilization of ovum and thus embryogenesis.
- The one that is formed from previous *Dhatus* that fills the *Majja Dhatu* (bony cavities). This in turn circulates all over the body both in males and females.

Reproduction and embryogenesis is the main functionof *Shukra Dhathu* and first one stands for the semen in general and sperms in particular. The second form of *Shukra* stands for hypothalamic-pituitary-gonadal axis of hormones that circulate all over the body.

The Synonymsof *Shukra Dhatu* are *Pumstvam, Paurusham, Retas, Beejam, Veeryam, Teja, Indriyam, Annavikara, MajjarasaShukra*. It is comprised of four *Mahabhutas* (four elements) that is *Vayu, Agni, Prithvi* and *Jala* in equal proportion. It is originated from six *Rasas* (tastes).[2]

The pure virile *Shukra* (semen) is *Snigdha* (unctuous), *Ghana* (viscous), *Picchila* (slimy), *Madhura* (sweet). It does not cause *Daha* (burning sensation) in genital tract so it is *Avidahi* (without burning sensation). It looks like *Shukla* (white like crystal quartz).[3]

Formation and metabolism of *Shukra dhatu*

Shurkra dhatu takes its origin from the *Snigdha* part of *Majja Dhatu*, which is the previous to *Shukra dhatu*. *Majja Dhatu* (Marrow) is present in *Asthi Dhatu* (Bones). Action of *Vayu* and *Akash Mahabhuta* (2 Elements) creates *Sukshma Chhidra* (minute pores) in *Asthi Dhatu* (bones). Like water oozing out of new mud pot, *Shukra* oozes out of these pores by metabolic factors responsible for the formation of *Shukra dhatu* (Semen). Then it is circulated through *Shukra vaha srotas* (reproductive channels) to all over the body. Thus, *Shukra dhatu* is present all over body.[4]

The reproductive form of *Shukra Dhatu* (semen) is present in *Vrushana* (testicles). After maturation, at the time *Sukra Vega* (urge for ejaculation), the *Shukra* (semen) is discharged

through *Shepha* (penis). This process happens just like *ghee* is melted by heat.[5] The total quantity of *Shukra* is mentioned as half *anjali* (unit of measurement).[6] Anjali is a personified measurement unit. *Shukra* is formed on the seventh day by the transformation of *Ahara Rasa*(nutrient fluid). The *Vrishya*(aphrodisiac)food and medicines enhance the formation of *Shukra Dhatu* in a shorter time.[7] *Sushruta* opines that *Shukra Dhatu* is formed in a time span of one month. (18090 *kala*≈30days).[8] Functions of Shukra Dhatu (semen) areejaculation, strength of the body, enhance courage, pleasure, love, lust and affection.

Etiology[9]

Dietary causes

Consumption of incompatible food, excessive consumption of dry, bitter, astringent, salty, sour, hot food.

- **Psychological causes**

Anxiety, distress, distrust, apprehension, rage, exorcism.

- **Causes related to coitus**

Excess intercourse, untimely coitus, coitus other than in vagina, or complete abstinence from it (suppression of discharge of semen), unaware of female desire, untimely ejaculation etc.

General decline: Reasons for the decline are not known with certainty, but it may be associated with chemical exposure or maternal smoking during prenatal development or pesticide exposure or lifestyle changes during adulthood.

Age: Although it is possible for men to be father in old age, but the genetic quality of sperm, as well as its volume and motility, all typically decreases with age. In other words, older sperm are less likely to result in a successful pregnancy and, moreover, the cumulative fragmentation of sperm DNA over timeincreases the likelihood that a small fraction of men will pass on achondroplasia and transmit multiple genetic and chromosomal defects. While advanced age can be a possible factor in sperm motility and health, the sperm of men below 20 years of age has likewise been linked to an increase in birth defects such as neural tube defects, hypospadias, cystic kidney, and Down syndrome.

Heat

Sperm are heat-sensitive, and cannot endure high temperatures. Increase of 2–3 °C are associated with increased DNA fragmentation. Placement of a laptop computer over the groin for extended use and fever raises the body temperature, which can affect sperm quality. In the same way, sperm quality can be low in the summer.

Physical trauma

A blow from outside does not affect the sperm quality of already produced sperm cells. Furthermore, the testes are well protected in the scrotum.

Chemicals

There is suspicion that many toxic substances, including several types of medication (antibiotics) and hormones (steroids), and also constituents of the diet, influence sperm quantity and quality.

Environmental mutagens that are associated with decreased semen quality include the following

- Cadmium, causing damage to Sertoli cells, thereby impeding spermatogenesis.
- Lead, causing reduced spermatogenesis and abnormal spermatozoa.
- Mercury, being highly damaging to spermatogenesis.

Many pesticides, causing decreased semen quality as well as sperm chromosome anomalies.

Medications

- Many psychoactive drugs, including antidepressants, antiepileptics (e.g. lithium), and propranolol
- Opioid analgesics
- Calcium channel blockers
- Phosphodiesterase inhibitors (e.g. caffeine, theophylline, pentoxifylline)
- Statins
- Calcium chelators (e.g. EDTA).

Also, numerous products that are intended for exposure to spermatozoa have only a general assumption of safety based on the absence of evidence of actual harm.

Diet

- Drinking over 1 L of aerated drinks a day might decrease sperm quality by up to 30%
- Soy products decrease sperm quality due to the high content of a type of phytoestrogen called isoflavones. Theoretically, this exposure to high levels of phytoestrogen in men may alter the hypothalamic-pituitary-gonadal axis. A few studies on animals have shown that such a hormonal effect may be significant and decrease fertility.
- Gossypol has been associated with reduced sperm production. It is present in crude cottonseed oil, and potentially the organ meats from animals poisoned with it.
- Diets rich in processed meat, fried foods, potatoes, full-fat dairy products, caffeine, alcohol and sugar-sweetened beverages have been inversely associated with the quality of semen.

Other causes

Excess exercise, senility, improper usage of surgical instruments, *Kshara* (alkali), *Agni*(heat), emaciation due to other diseases, *Vega Dharan* (suppression of natural urges), injury, morbidity causing vitiation of *Dhatus*, Doshas individually or collectively reaching Retovahasrotas (reproductive system) leads to acute disorders of the *Shukra* (semen).[10]

Abnormalities of Semen[11]

Aspermia – lack of semen, Asthenozoospermia – sperm motility below lower limit, Azoospermia – absence of sperm in ejaculate, Hyperspermia – semen volume above higher limit, Hypospermia – Semen volume below lower limit, Oligozoospermia – total sperm count below lower limit, Necrozoospermia – Absence of living sperm in the ejaculate, Teratozoospermia – percent normal forms below lower limit.

Abnormal states

The increase or decrease in quality and/or quantity of shukra dhatu can lead to various abnormal conditions. The states can be assessed by the following clinical features.

Signs of decrease[12,13,14]

- Debility
- Dryness of mouth
- Pallor
- Asthenia

- Fatigue/giddiness
- Impotency
- Pain in penis and testes
- Delayed ejaculation, absence of ejaculation
- Scanty semen, Semen mixed with blood
- Burning sensation in penis.

Qualities of semen required for fertility[15]

1. Volume of semen per ejaculation must be at least 2ml
2. Sperm count must be at least 20 million per ml
3. Number of sperm in each ejaculation must be at least 40 million
4. 75% of sperm per ejaculation must be alive
5. 50% of sperm must be motile
6. 30% of sperm must have normal shape and structure.
7. Sperm with head defect must be less than 35%
8. Sperm with midpiece defect must be less than 20%
9. Sperm with tail defect must be less than 20%.

MATERIALS AND METHODS[16]

Bhavaprakash nighantu of *Shri Bhavamishra* which is translated by *Prof K.C Chunekar* has been used for screening out the *dravyas* (drugs). *Bhavaprkash nighantu* has been thoroughly foraged to find the *Sukraladravya* and the result is listed out from each Varga (group). The terms *Sukral* and Veerya (synonyms of Sukra) are screened out. Those drugs are made into tables and are examined.

Sr.No	Name of *Varga* (group)	No of *sukrala dravya* (sematogogue drugs)	Percentage
1	*Haritakyadi Varga (group)*	4	4.76%
2	*Karpuradi Varga (group)*	6	7.14%
3	*Guduchyadi Varga (group)*	12	14.28%
4	*Pushpadi Varga (group)*	1	1.19%
5	*Vatadi Varga (group)*	1	1.19%
6	*Aamradi Varga (group)*	13	15.47%
7	*Dhatuvadi Varga (group)*	2	2.38%
8	*Dhanya Varga (group)*	6	7.14%
9	*Saka Varga (group)*	7	8.33%
10	*Mamsa Varga (group)*	11	13.09%
11	*Krutanna Varga (group)*	11	13.09%
12	*Vari Varga (group)*	1	1.19%

13	*Dugdha Varga (group)*	5	5.95%
14	*Dadhi Varga (group)*	1	1.19%
15	*Takra Varga (group)*	0	0%
16	*Navneeta Varga (group)*	1	1.19 %
17	*Ghrita Varga (group)*	0	0 %
18	*Mutra Varga (group)*	0	0 %
19	*Taila Varga (group)*	0	0 %
20	*Sandana Varga (group)*	0	0 %
21	*Madhu Varga (group)*	0	0 %
22	*Ikshu Varga (group)*	2	2.38 %
	Total Drugs	84	100 %

Table 1: *Shukrala* Drugs in *HaritkyadiVarga (group).*

Sr.No	Sanskrit Name	Latin Name	Family	Karma (action)	English Name	Reference
1	*Ashtavarja*	-	-	Shukrala	Group of eight drugs	B.P.N.1/120-144
i.	*Kakoli*	*Roscoea purpurea* Smith	Zingiberaceae	Shukrala	Roscoe's Lily	B.P.N.1/122
ii.	*Kshirkakoli*	*Lilium polyphyllum* D. Don	Liliaceae	Shukrala	White Himalayan lily	B.P.N.1/122
iii.	*Jeevak*	*Crepidium acuminatum* D. Don	Orchidaceae	Shukrala	The gradually tapering Malaxis, Jeevaka	B.P.N.1/122
iv.	*Rishbhak*	*Malaxis muscifera* Lindl.	Orchidaceae	Shukrala	Snake mouth orchid	B.P.N.1/122
v.	*Meda*	*Polygonatum verticillatum* Linn.	Liliaceae	Shukrala	Whorled Solomon's Seal	B.P.N.1/122
vi.	*Mahameda*	*Polygonatum cirhifolium* Wall.	Liliaceae	Shukrala	King's Solomon's Seal	B.P.N.1/122
vii.	*Riddhi*	*Habenaria intermedia* D.Don	Orchidaceae	Shukrala	White wild orchid	B.P.N.1/122
viii.	*Vriddhi*	*Habenaria edgeworthii* Hook	Orchidaceae	Shukrala	Edgeworth's Habenaria	B.P.N.1/122
2	*Yasthimadhu*	*Glycyrrhiza glabra* Linn.	Leguminosae	Shukrala	Liquorice Root	B.P.N.1/146
3	*Kutha*	*Saussurea lappa* C.B. Clarke	Compositae	Shukrala	Costus Root	B.P.N.1/173
4	*Palandu*	*Allium cepa*Linn.	Liliaceae	Veeryakar	Onion	B.P.N.1/227

Table 2: *Shukrala* Drugs in *KarpuradiVarga (group).*

Sr. No.		Sanskrit Name	Latin Name	Family	Karma (action)	English Name	Reference
1	Animal Origin	*Kasturi*	-	-	Shukrala	Musk	B.P.N.2/8
2		*Jabadaka sturi*	-	-	Veeryajanaka	Civet cat	B.P.N.2/10
3		*Nakha-Nakhi*	-	-	Shukrala	Land snail	B.P.N.2/82
4	Plant origin	*Dalchini*	*Cinnamomum zeylanicum*	Lauraceae	Shukrala	Cinnamon Bark	B.P.N.2/67
5		*Thuner*	*Clerodendrum inforunatum* Linn.	Verbenaceae	Shukrakara	Hill glory bower	B.P.N.2/111
6		*Prapondrikam*	*Saussurea obvallata* wall.ex C.B Clarke	Asteraceae	Shukrala	Queen of night	B.P.N.2/131

Table 3: *Shukrala* Drugs in *GuduchyadiVarga (group).*

Sr. No.	Sanskrit Name	Latin Name	Family	Karma (action)	English Name	Reference
1	*Jeevaniya varga*	-	-	Shukrakrud		B.P.N.3/58
i - x	*Jivanti (out of 10, 9 drugs are mentioned in Astavarga and yastimadhu in Haritakyadi varga)*	*Leptadenia reticulata* W.and A.	Asclepiadaceae	Shukrakrud	Cork swallow wort (all others are entioned in haritakyadi varga)	B.P.N.3/58
2	*Mudagparni*	*Phaseolus trilobus* Ait.	Leguminosea	Shukrala	Wild bean	B.P.N.3/53-58
3	*Mashparni*	*Teramnus labialis*Spreng.	Leguminosea	Shukral	Blue wiss	B.P.N.3/56-58
4	*Sobhaanjan*	*Moringa pterygosperma* Gaertn.	Moringaceae	Shukral	Drum stick tree	B.P.N.3/106
5	*Varahikanda*	*Dioscorea bulbifera* Linn.	Dioscoreaceae	Shukrathya	Air potato	B.P.N.3/179
6	*Vidarikanda*	*Pueraria tuberosa* DC.	Fabaceae	Shukrada	Indian Kudju	B.P.N.3/181
7	*Shatavri*	*Asparagus racemosus* Willd.	Liliaceae	Shukravardhaka	Asparagus	B.P.N.3/187
8	*Ashwagandha*	*Withania somniera* Dunal	Solanaceae	Atishukrala	Winter cherry	B.P.N.3/190
9	*Vidhara*	*Argyreia speciosa Linn. f.*	Convolvulaceae	Shukrala	Elephant Creeper	B.P.N.3/2
10	*Shariva*	*Ichnocarpus*	Asclepiadaceae	Shukrakar	Indian	B.P.N.3/238

		fruitescens R.Br.			sarsaparilla	
11	*Kakamachi*	*Solanum nigrum* Linn.	Solanaceae	Shukrada	Garden Nightshade	B.P.N.3/246
12	*Jalapippli*	*Phyla nodiflora* Greene	Verbenaceae	Shukrala	Purple Lippia	B.P.N.3/295

Table 4: *ShukralaDrugs* in *PushpaVarga (Group of Flower).*

Sr. No.	Sanskrit Name	Latin Name	Family	Karma (actions)	English Name	Reference
1	*Satpatri*	*Rosa Centifolia* Linn.	Rosaceae	Shukrala	Rose	B.P.N.4/23

Table 5: *ShukralaDrugs* in *Vatadi*Varga (group).

Sr.No.	Sanskrit Name	Latin Name	Family	Action (karma)	English Name	Reference
1	*Parish pipal*	*Thespesia populnea* Soland ex Correa	Malvaceae	Shukraprad	Indian tulip tree	B.P.N.5/5

Table 6: Shukrala Drugs in *Aamradiphala*Varga (group of fruits).

Sr. No	Sanskrit Name	Latin Name	Family	Action (karma)	English Name	Reference
1	*Aamra (Pakva/*Riped*)*	*Spondias mangifera* Willd.	Anacardiaceae	Sukravivardhan	Indian hog plum	B.P.N.6/5
2	*Panas*	*Artocarpus integrifolia* Linn.f.	Moraceae	Shukraprad	Jack tree	B.P.N.6/26
3	*Narkilela jala*	*Cocous Nucifera* Linn.	Palmea	Shukrala	Coconut water	B.P.N.6/41
4	*Tada*	*Borassus flabellifer* Linn.	Palmea	Shukradam	The palmyra Palm	B.P.N.6/53
5	*Badar*	*Zizyphus sativa* Gaertn	Rhamnaceae	Shukralam	Jujube	B.P.N.6/73
6	*Srangataka*	*Trapa bispinosa* Roxb.	Trapaceae	Shukraprad	Water caltrops	B.P.N.6/93
7	*Madhuka puspa*	*Madhuca indica* J.F.Gmel.	Sapotaceae	Shukrakar	Indian butter tree	B.P.N.6/96
8	*Madhuka phala*	*Madhuca indica* J.F.Gmel.	Sapotaceae	Shukral	Indian butter tree	B.P.N.6/97
9	*Dadima*	*Punica*	Punicaceae	Shukrala	Pomegranat	B.P.N.6/102

		granatum Linn.			e	
10	*Khrajura*	*Phoenix sylvestris* Roxb.	Palmae	Shukradam	Date	B.P.N.6/118
11	*Vatada*	*Prunus amygdalus* Batsch	Rosaceae	Shukrakrud	Almond	B.P.N.6/123
12	*Sevam*	*Pyrus malaus* Linn.	Rosaceae	Shukrakrut	Apple	B.P.N.6/126
13	*Aakshota*	*Juglans regia* Linn.	Juglandaceae	Shukrakrud	Walnut	B.P.N.6/129

Table 7: *Shukrala* Drugs in *DhatvadiVarga (*groupof Metal, Gems and poisons*).*

Sr. No.	Sanskrit Name	Varga (group)	Karma (action)	English Name	Reference
1	Abhraka bhasma	Dhatu	Veeryavrudhi	Mica (Ferro-magnesium silicate)	B.P.N.7/125
2	Sodhita Visha	Visha	Veeryavardhanam	Purified poison	B.P.N.7/204

Table 8: *Shukrala* Drugs in *DhanyaVarga (*group of creals, pulses and millets*).*

Sr. No.	Sanskrit Name	Latin Name	Family	Karma (action)	English Name	Reference
1	*Kedaraj Shali*	*Oryza sativa* Linn.	Poaceae	Shukrala	Type of Rice	B.P.N.8/9
2	*Rakta Shali*	*Oryza sativa* Linn.	Poaceae	Shukral	Type of Rice	B.P.N.8/15
3	*Godhuma*	*Triticum sativum* Lam.	Poaceae	Shukral	Wheat	B.P.N.8/33
4	*Madhuli Godhuma*	*Triticum sativum* Lam.	Poaceae	Shukral	Type of Wheat	B.P.N.8/35
5	*Mansha*	*Phaseolus mungo* Linn.	Fabaceae	Shukral	Black Gram	B.P.N.8/41
6	*Tila*	*Sesamum indicum* Linn.	Pedaliaceae	Shukral	Gingelly	B.P.N.8/65

Table 9: Shukrala Drugs in Shaka Varga (group of potherbs).

Sr. No	Sanskrit Name	Latin Name	Family	Karma (action)	English Name	Reference
1	*Vastuka*	*Chenopodiu malbum* Linn.	Chenopodiaceae	Shukrapradam	Lambs Quarters	B.P.N.9/7

2	*Potaki*	*Basella rubra* Linn.	Basellaceae	Shukral	Indian Spinach	B.P.N.9/9
3	*Kalambi-Shaka*	*Ipomoea aquatica* Forsk.	Convolvulaceae	Shukrakarini	Swamp Cabbage	B.P.N.9/19
4	*Kolashimbi*	*Canavalia gladiate* DC.	Fabaceae	Shukral	Sword bean	B.P.N.9/77
5	*Vrantaka*	*Solanum melongena* Linn.	Solanaceae	Shukral	Brinjal	B.P.N.9/79
6	*Varahikanda*	*Dioscorea bulbifera* Linn.	Dioscoreaceae	Shukral	Air potato	B.P.N.9/107
7	*Kaseru*	*Scirpus kysoor* Roxb.	Cyperaceae	Shukral	Water chestnut	B.P.N.9/113

Table 10: *Shukrala* Drugs in *MansaVarga (*group of meat*).*

Sr. No.	Sanskrit Name	Karma (action)	English Name	Reference
1	*Plva*	Shukravardhak	Birds that float	B.P.N.10/33
2	*Vartaka*	Shukrad	Common Quail	B.P.N.10/53
3	*Chatak*	Shukraprad	Yellow throated sparrow	B.P.N.10/61
4	*Kukuta*	Shukraprad	Cock	B.P.N.10/63
5	*Paaravat*		Blue rock pigeon	B.P.N.10/71
6	*Pakshyandani*	Atishukrakarini	Birds egg	B.P.N.10/72
7	*Chaang*	Veeryavvardhan	Goat	B.P.N.10/75
8	*Mahisha*	Shukraprad	Buffalo	B.P.N.10/90 B.P.N.10/90
9	*Dand Matsyha*	Shukral	Type of Fish	B.P.N.10/116
10	*Praposthi*	Shukrad	Type of Fish	B.P.N.10/122
11	*Kupjadimatshya*	Shukravardhak	Fish living in well	B.P.N.10/128

Table 11: Shukrala Drugs in Kriatnna Varga (Food preparations).

Sr. No.	Sanskrit Name	Karma (action)	English Name	Reference
1	*Krushra*	Shukral	Preparation of rice and pulses	B.P.N.11/10
2	*Angar- karkati*	Shukrala	Wheat flour cakes	B.P.N.11/34
3	*Yavarotika*	Shukral	Bread of barley	B.P.N.11/35
4	*Bedhmika*	Shukral	Bread of wheat and black gram	B.P.N.11/42
5	*Urad Bara*	Veeryavardhan	Cake of black gram	B.P.N.11/52
6	*Urad ka Ras Bara*	Shukral	Cake of black gram with	B.P.N.11/54

			buttermilk	
7	*Harisa*	Shukrada	Meat preparation	B.P.N.11/93
8	*Dugdakupika*	Shukrakari	Milk preparation	B.P.N.11/135
9	*Shrikhand*	Shukrala	Curd preparation	B.P.N.11/146
10	*Shrakara- udakam*	Shukral	Sugar syrup	B.P.N.11/149
11	*Shali saktu*	Shukrada	Rice preparation	B.P.N.11/170

Table 12: Shukrala Drugs in Vaari Varga (group of water).

Sr. No.	Sanskrit Name	Karma (action)	English Name	Reference
1	*Sharad-Varsha jala*	Shukral	Autumn and Rainy season water	B.P.N.12/15

Table 13: *Shukrala* Drugs in*DugdhVarga* (group of milk).

Sr. No.	Sanskrit Name	Karma (action)	English Name	Reference
1	*Dugda*	Sadhyoshukrakar	Milk	B.P.N.13/2
2	*Mahisha dugda*	Shukrakar	Buffalo milk	B.P.N.13/15
3	*Avi dugdha*	Shukrapradam	Sheep milk	B.P.N.13/19
4	*Santanika*	Shukral	Milk cream	B.P.N.13/35
5	*Khandadiyukta dugda*	Shukral	Milk with sugar	B.P.N.13/36

Table 14: *Shukrala* Drugs in *Dadhi*Varga (group of curd).

Sr. No.	Sanskrit Name	Karma (action)	English Name	Reference
1	*Dadhi*	Shukrakrut	Curd	B.P.N.14/2

Table 16: Shukrala Drugs in *NavneetVarga* (group of butter).

Sr. No.	Sanskrit Name	Karma (action)	English Name	Reference
1	*Mahisha Navneet*	Shukravivardhanam	Butter	B.P.N.16/3

Table 22: *Shukrala* Drugs in *IkshuVarga* (group of sugarcane).

Sr. No.	Sanskrit Name	Karma (action)	English Name	Reference
1	Phanita	Shukrakrut	By product of sugar	B.P.N.22/21
2	Sarkara	Shukrakarini	Sugar	B.P.N.22/30

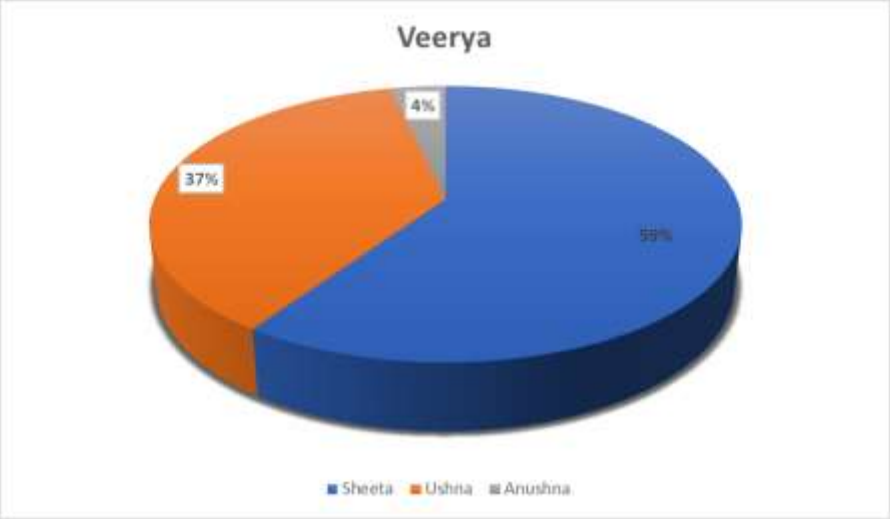

Chart no. 1: *Sukrala dravya* accordingto *veerya.*

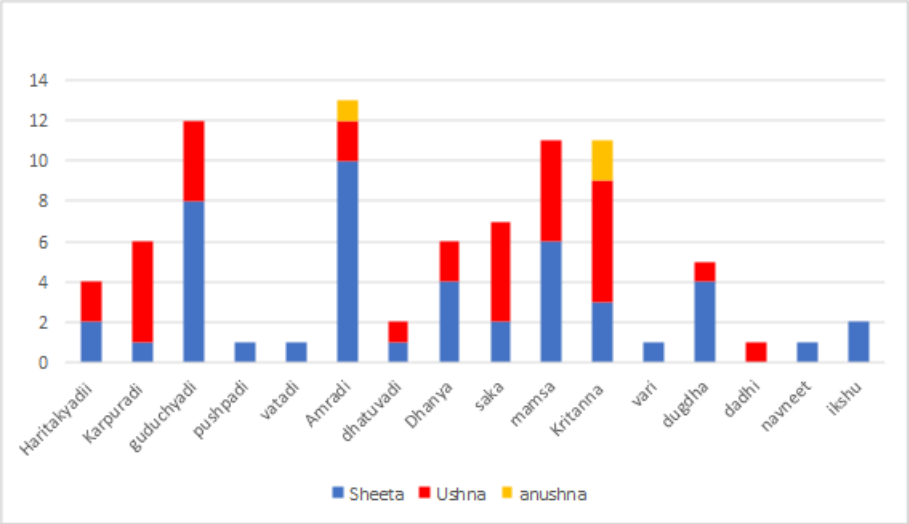

Chart no. 2: *Sukrala dravyas* according to *Varga* (group).

DISCUSSION

Out of 426 drugs in *Bhavaprakash* 84 are sematogogue. 31are *ushna veerya* (hot potency)50 are *sheeta veerya* (cold potency) and 3 are *anushna* (neither too hot nor too cold). In *haritakyad*i *varga* 4 (4.76%) are *sukral* 2 *sheeta* and 2 *ushna*, *karpuradi varga* 6 (7.14%), 5 *ushna* 1 *sheeta*, *Guduchyadi varga* 12 (14.28%), 4 *ushna and 8 sheeta*, *Pushpadi varga* 1 (1.19%) only one *ushna*, *Vatadi varga* 1(1.19%) *Amradi phala varga* 13 (15.47%*) Ushna* 2 *Sheeta* 10 *Anushna* 1, *Dhatvadi varga* 2(2.38%) 1 *ushna* 1 *Sheeta*, *Dhanya varga* 6 (7.14%) *Ushna* 2 *sheeta* 4, *Shaka varga* 7 (8.33%) *Ushna* 5 *sheeta* 2, *Mansa varga* 11(13.09%) *Ushna* 5 and *Sheeta* 6, *Krutanna varga* 11(13.09%) *Ushna* 3 *Sheeta* 6 *anushna* 2, *Vari varga* 1(1.19%) *sheeta* 1, *Dugdha varga* 5(5.95%) *Ushna* 1 *sheeta* 4, *Dadhi varga* 1(1.19%) *Ushna*

1, *Navneeta varga* 1(1.19%) *sheeta* 1, *Ikshu varga* 2(2.38%) *sheeta* 2. *Takra*(butter milk) *varg*, *Ghrita* (clarified butter) *varga*, *mutra* (Urine) *varga*, *Taila* (Oils) *varga*, *Sandhana* (fermented preparation)*varga* and *madhu* (honey) *varga* dosent have any drugs which is *Shukrala*. In *Haritakyadi varga Ashtavarga* (Group of 8 Drugs) and *jeevaniyadi gana* from *guduchyadi varga* as 2 single drugs.

Ashwagandha (*Withaniasomnifera* Linn) and *Pakshyandani* (bird's egg) are *atishuktrala*. Out of 100 these 2 increase process of semen production other than any other *shukrala dravyas*. *Dugdha* (all types of milk) is *sadhyosukrakar*. *Sadyosukrakar* means the production of semen will be faster as compared to normal time period. *Shukrala*, *Shukrakar*, *Shukraprada*, *Shukrad*, *Veeryavardhan*, *Veeryakar* all are the terms by *Achaya Bhavamishra* for *Semeatogogue* drugs.

Mode of Action *Sheeta veerya* (Cold potency)*shukral dravyas* (Sematogogue drugs)[17]

Shukra (semen)

⬇

Madhur rasa, *madhur vipaka* and *sheeta veerya dravyas*

⬇

Shukranu poshan (nourishment of sperm) *Shukra dhatu Vridh*i (increases sperm count)

⬇

Indicated in *Ksheena shukra* (Oloigospermia, Azoospermia etc)

Mode of action of *ushna veeya*(hot potency) *shukral drugs* (sematogogue)[18]

Shukra (semen)

⬇

Madhura rasa, *madhura vipaka* and *ushna veerya*

⬇

Madhura rasa increase *jala mahabhuta*

⬇

ushna veeryadravyas increase the *drava guna* of *pitta* and *sanghat bhed*

⬇

Indicated in *Grandi bhut shukraand puya shukra*(Decreased motility of spermdue to increase in viscosity)

CONCLUSION

In day to day practice we use few drugs like *Aswagandha*, *Satavari*, *Kapikacchu*, *Shilajit*, etc. As per *Bhavaprakash* we were able to identify 84 drugs which can be used in *Shukra Vyadhi* (semen disorders). Diseases related to decreased seminal fluid (hypospermia) and motility (asthenozoospermia), we can use *Ushna Veerya Dravyas*. In conditions of oligospermia, azospermia where the sperm count is decreased we can use drugs which are *Sheeta Veerya*.

REFERENCE

1. Amarakosh, Narayanaram Acharya, Chaukhamba publication, Varanasi, Third reprint, 2003; 235.
2. Charaksamhita, Sarirasthan, Acharya Charaka, Chaukhambha bharatiya academy, Varanasi, Reprint, Sholk no 4, 2008; 837.
3. Charaksamhita, Chikitsasthan, Acharya charaka, Chaukhambha bharatiya academy, Reprint, Sholk no 146, 2007; 863.
4. Charak samhita, Chikitsasthan, Acharya Charaka, Chaukhambha bharatiya academy, Reprint, Sholk no 32-33, 2007; 458.
5. Charak samhita, Chikitsasthan, Acharya Charaka, Chaukhambha bharatiya academy, Reprint, Sholk no 34-35, 2007; 458.
6. Charak samhita, Sarirasthan, Acharya Charaka, Chaukhambha bharatiya academy, Varanasi, Reprint, Sholk no 15, 2008; 915.
7. Charak samhita, Chikitsasthan, Acharya Charaka, Chaukhambha bharatiya academy, Reprint, Sholk no 20-21, 2007; 457.
8. Sushrut samhita, Sutrasthan, Acharya Sushrut, Chaukhambha Orientalia, Reprint, Sholk no 14, 2014; 146.
9. Available from https://en.wikipedia.org/wiki/Semen_quality#:~:text=Semen%20quality%20is%20a%20measure,known%20as%20testicular%20dysgenesis%20syndrome., Dated – 4th September, 2020.
10. Charak samhita, Chikitsasthan, Acharya Charaka, Chaukhambha bharatiya academy, Reprint, Sholk no 139, 2007; 861.
11. Available from https://en.wikipedia.org/wiki/Aspermia dated 20th October, 2020.
12. Charak samhita, Sutrasthan, Acharya Charaka, Chaukhambha bharatiya academy, Reprint, Sholk no 69, 2008; 349.

13. Sushrut samhita, Sutrasthan, Acharya Sushrut, Chaukhambha Orientalia, Reprint, Sholk no 9, 2014; 159.
14. Ashtang sangraha Sutrasthan, Acharya Vaghbhat, Chaukhambha Sanskrit Series Office, Varanasi, Reprint, Sholk no 9, 2012; 87.
15. Essential medical physiology, K sembulingam and Prema sembulingam, Jaypee brothers, New Delhi, Fourth edition, 2006; 433.
16. Bhavaprakash, Bhavamishra, Edited by K.C Chunekar, Chaukhambha bharati Acadamy, Varanasi, Reprint, 2018.
17. Dravyaguna Adhar, Vaidya Sonia Dhiman, Jaypee publication, Print, 2018; 158.