

Role of Pathya–Apathya in Shukra Kṣaya: An Integrative Review

Dr Devendra kumar Jadhav¹, Dr.Sridevi Swamy²

¹ 2nd PG Scholar, Postgraduate Department of Prsuti-Tantra Evum Stree- Roga, N.K. Jabshetty Ayurvedic Medical College & P.G. Centre, Bidar, Karnataka, India.

² Professor & HOD, Post graduate Department of Prsuti-Tantra Evum Stree- Roga, N.K. Jabshetty Ayurvedic Medical College & P.G. Centre, Bidar, Karnataka, India.

Abstract—Background: Male reproductive health is closely related to the proper nourishment of *Shukra Dhatu*. Ayurveda emphasizes the importance of *Pathya Ahara* and *Vihara* in maintaining *Dhatu Poshana* and preventing *Shukra Kshaya*.

Objective: To review the role of *Pathya* and *Apathya* in the prevention and management of *Shukra Kshaya*.

Materials and Methods: A narrative review was carried out using *Ayurvedic samhita texts*, including *Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Hridaya*, and *Kashyapa Samhita*, along with relevant published literature.

Results: The review suggests that *Pathya Ahara* and *Vihara* support *Dhatu Poshana* and preserve *Shukra Dhatu*, whereas *Apathya* practices contribute to *Shukra Kshaya*. Appropriate dietary and lifestyle measures may help maintain reproductive health.

Conclusion: Adherence to *Pathya Ahara* and *Vihara* forms a cornerstone in the prevention and management of *Shukra Kshaya* and may provide a holistic approach to improving male reproductive health.

Index Terms—*Pathya, Apathya, Shukra Kshaya, Shukra Dhatu, Dhatu Poshana, Ayurveda.*

I. INTRODUCTION

Ayurveda aims at *Swasthasya Swasthya Rakshanam* and *Aturasya Vikara Prashamanam*. Among the various principles described for maintaining health, *Pathya* and *Apathya* hold prime importance. *Pathya Ahara* and *Vihara* support the equilibrium of *Dosha*, *Agni*, *Dhatu*, and *Mala*, thereby promoting *Dhatu Poshana* and preserving health. Conversely, *Apathya Ahara* and *Vihara* lead to *Agnimandya*, *Dosha Vaishamya*, impaired *Dhatu Poshana*, and ultimately *Dhatu Kshaya*.

Shukra Dhatu, the *sapta Dhatu*, is the essence of all preceding *Dhatus* and is responsible for *Garbhotpadana*, *Bala*, *Varna*, *Harsha*, and *Ojas*. Proper nourishment of *Shukra* depends upon the sequential nourishment of all *Dhatus* through the process of *Dhatu Parinama*. Persistent indulgence in *Apathya Ahara* and *Vihara* vitiates *Doshas*, impairs *Dhatu Poshana*, and results in *Shukra Kshaya*, characterized by features such as *Klaibya*, *Alpa Retas*, *Daurbalya*, and *Vandhyatva*.

Adherence to appropriate *Pathya Ahara* and *Vihara* plays a vital role in maintaining the integrity of *Shukra Dhatu*, preventing *Shukra Kshaya*, and promoting *Prajanana Shakti*. Therefore, understanding the role of *Pathya* and *Apathya* is essential for the prevention and management of *Shukra Kshaya* according to *Ayurvedic* principles.¹

Definition of Pathya and Apathya

****पथ्यं पथोऽनपेति यच्चोक्तं मनसः प्रियमेव च।**

यच्चाप्रियमपथ्यं च नियतं तल्लक्षणम्।**

According to Acharya *Charaka*, *Pathya* refers to *Ahara* and *Vihara* that are conducive to the *Srotas*, *Manasa Priya*, and maintain the equilibrium of *Dosha*, *Agni*, *Dhatu*, and *Mala*, thereby promoting *Dhatu Poshana* and preserving health. *Apathya* comprises *Ahara* and *Vihara* that are *Ahita* to the body, disturb the equilibrium of *Dosha* and *Agni*, impair *Dhatu Poshana*, and contribute to the manifestation and progression of disease.²

Importance of Pathya

शारीरोपचयबलवर्णेन्द्रियप्रसादायुषां चोपपत्तिश्च।

Acharya Charaka has emphasized *Pathya* as an indispensable component of *Chikitsa*. Appropriate *Pathya Ahara* and *Vihara* promote *Samyaka Agni*, facilitate *Dhatu Poshana*, and enhance *Bala*, *Varna*, *Ayu*, and *Indriya Prasada*. In the context of *Shukra Kshaya*, adherence to *Pathya* helps maintain the integrity of *Shukra Dhatu*, while *Apathya* leads to impaired *Dhatu Poshana* and predisposes to *Shukra Kshaya*.³

Synonyms

Pathya - *Satmya*, *Swavasthaparipaalaka*, *Swasthitakara*, *Hita Ahara*, *Swasthaaurjaskara*, *Sharmakara*, *Sukha-Parinaamkara*, *Dhatu-Avirodhi*, *Dhatu-Saamyakara*.

Apathya - *Asatmya*, *Ahitkara*, *Anupashaya*, *Swastha-Ahitkara*, *Asukha-Parinaamakara*, *Dhatu-Asamyakara*, *Ashrmakara*⁴

Concept of Shukra

Shukra is the *sapta Dhatu*, formed through the sequential transformation (*Dhatu Parinama*) of the preceding six *Dhatu*s. It is regarded as the *Sara* of all *Dhatu*s and is responsible for *Prajanana*, *Bala*, *Harsha*, *Deha Pushti*, and the maintenance of *Ojas*. According to *Acharya Sushruta*, *Shukra* possesses *Sarvasharira Vyapakatva* and is present throughout the body, just as *Ghrta* is present in milk and oil in sesame seeds. Proper *Jatharagni*, *Dhatvagni*, balanced *Doshas*, and adequate *Dhatu Poshana* are essential for the formation and maintenance of healthy *Shukra Dhatu*. Owing to its vital role in reproduction and overall vitality, *Shukra* is considered one of the most important *Dhatu*s in *Ayurveda*.⁵

Concept of Śukra Kṣaya

Śukra Kṣaya refers to the quantitative and qualitative diminution of *Śukra Dhātu*, resulting from impaired *Dhātu Poṣaṇa*, excessive depletion, or vitiation of *Doṣhas*, predominantly *Vāta* and *Pitta*. As *Śukra* is the final *Dhātu* and the essence of all preceding *Dhātus*, its depletion adversely affects *Garbhotpatti*, *Bala*, *Harṣa*, and overall vitality.

According to *Ācārya Caraka*, *Śukra Kṣaya* is characterized by features such as *Daurbalya* (weakness), *Mukhaśoṣa* (dryness of the mouth), *Pāṇḍutā* (pallor), *Klama* (fatigue), *Śukra-visarga-vilamba* (delayed ejaculation), *Alpa Retas* (scanty semen), and *Vedanā* during ejaculation. *Suśruta* also emphasizes the impairment of reproductive capacity associated with depletion of *Śukra*.

The management of *Śukra Kṣaya* primarily focuses on correcting the underlying *Doṣa* imbalance, nourishing *Śukra Dhātu* through, and *Bṛṃhaṇa*, *Rasāyana* *Vājīkaraṇa* therapies, along with the adoption of appropriate *Pathya Āhāra* and *Vihāra* to restore the quality and quantity of *Śukra*.⁶

The major Nidānas include

Āhāraja Nidāna: Excessive intake of *Rūkṣa*, *Kaṭu*, *Tikta*, and *Kaṣāya Rasa-pradhāna Āhāra*, *Alpāhāra*, *Viṣamāśana*, prolonged fasting, and nutritionally deficient food.

Vihāraja Nidāna: *Ati-vyāyāma* (excessive physical exertion), *Ati-maithuna* (excessive sexual activity), *Rātri-jāgaraṇa*, *Vega-dharaṇa*, and inadequate rest.

Mānasika Nidāna: *Cintā*, *Śoka*, *Bhaya*, *Krodha*, and prolonged psychological stress, which adversely affect *Dhātu Poṣaṇa* and contribute to *Śukra Kṣaya*.

Doṣaja Nidāna: Predominant aggravation of *Vāta* and *Pitta Doṣa*, leading to depletion and qualitative impairment of *Śukra Dhātu*.⁷

Table 1. Classical *Pathya–Apathya* for *Śukra Kṣaya* (Compiled from *Ayurvedic Classics*)

Acc. To Samhita	Pathya Āhāra	Pathya Vihāra	Apathya Āhāra	Pathya Vihāra
Caraka Samhita ⁸	Kṣīra, Ghr̥ta, Māṣa, Godhūma, Śālī, Māṃsa Rasa, Madhura-Snigdha-Bṛṃhaṇa Āhāra	Brahmacarya, Samyak Nidrā, Hṛdya and pleasant mental state	Rūkṣa, Kaṭu, Tikta, Kaṣāya Āhāra, Alpāhāra, Upavāsa	Ati-Maithuna, Ati-Vyāyāma, Vega-Dharaṇa
Suśruta Samhita ⁹	Kṣīra, Ghr̥ta, Navanīta, Māṃsa Rasa, Bṛṃhaṇa	Snehana, Basti (when indicated), regulated Vyavāya	Kṣāra, Ati-Amla, Ati-Kaṭu, Vidāhi Āhāra	Ati-Śrama, Ati-Vyavāya

	Āhāra			
Aṣṭāṅga Hṛdaya ¹⁰	Kṣīra, Ghṛta, Māṣa, Śāli, Rasāyana and Vṛṣya Dravyas	Samyak Nidrā, Brahmacharya, Dinacarya	Rūkṣa, Kaṭu, Tikta, Kaṣāya Āhāra	Ati-Maithuna, Rātri-Jāgaraṇa, Vega-Dharaṇa
Kāśyapa Saṃhitā ¹¹	Kṣīra, Ghṛta, Navanīta, Madhura and Bṛmhaṇa Āhāra	Satmya Vihāra, adequate rest	Apatarpaṇa, Rūkṣa Āhāra	Ati-Śrama
Bhāvaprakāśa ¹²	Aśvagandhā, Kapikacchu, Śatāvarī, Vidārīkanda, Gokṣura, Kṣīra, Ghṛta	Rasāyana, Vājīkaraṇa, Samyak Nidrā	Upavāsa, Rūkṣa, Kaṭu-Tikta Āhāra	Ati-Vyāyāma, Ati-Maithuna

Table 2. Category-wise Pathya–Apathya and Their Rationale in Shukra Kṣaya

Category	Pathya	Apathya	Rationale in Shukra Kṣaya
Āhāra Rasa ¹³	Madhura, Snigdha, Śīta, Guru	Kaṭu, Tikta, Kaṣāya, Uṣṇa, Rūkṣa	Madhura and Snigdha qualities promote Dhātu Poṣaṇa, Bṛmhaṇa, and Shukra Vṛddhi, whereas Kaṭu, Tikta, Kaṣāya, and Rūkṣa qualities aggravate Vāta, causing Dhātu Kṣaya and depletion of Shukra.
Śūka Dhānya ¹⁴ (Cereals)	Śaṣṭika Śāli, Godhūma	Yava, Kaṅgu	Nourishing cereals provide sustained nutrition for Dhātu formation, while comparatively drying cereals may increase Vāta when consumed excessively.
Samī Dhānya (Pulses) ¹⁵	Māṣa, Mudga	Kulattha, Caṇaka (excessive intake)	Māṣa and Mudga are nourishing and support tissue building. Excessive intake of drying pulses may contribute to Vāta aggravation and reduced Dhātu nourishment.
Gorasa(Dairy Products) ¹⁶	Go-Kṣīra, Go-Ghṛta, Navanīta	Dadhi (especially sour or consumed at night), Śukta	Milk, ghee, and butter are Bṛmhaṇa, Balya, and Vṛṣya, supporting Shukra formation. Improper use of Dadhi and fermented foods may disturb Doṣa balance and digestion.
Phala (Fruits) ¹⁷	Kharjūra, Kadalī, Drākṣā, Ikṣu	Excessively sour Āmra, Vidāhi fruits and vegetables	Sweet fruits nourish Dhātus and support reproductive health, whereas excessively sour and Vidāhi foods may aggravate Pitta and impair normal metabolism.
Māṃsa (Meat) ¹⁸	Jāṅgala Māṃsa Rasa	Śuṣka Māṃsa, Bhrāṣṭa Māṃsa	Properly prepared meat soup is nourishing and strengthening, whereas dry and excessively fried meat is comparatively difficult to digest and less supportive of Dhātu Poṣaṇa.
Vihāra	Abhyaṅga, Gentle Yoga, Sukha-Śāyyā, Samyak Nidrā	Ati-Vyāyāma, Ati-Adhva, Rātri-Jāgaraṇa	Proper lifestyle conserves energy, supports Agni, and preserves Shukra. Overexertion and sleep deprivation accelerate Dhātu Kṣaya.
Vyavāya	Regulated Vyavāya, Post-coital Go-Kṣīra	Ati-Vyavāya, Śukra Vega-Dharaṇa	Regulated sexual activity helps preserve reproductive strength, whereas excessive sexual activity depletes Shukra and suppression of sexual urges disturbs Vāta.
Mānasika	Harṣa, Prīti, Dhṛti	Cintā, Krodha,	Positive mental states promote overall well-being

Bhāva		Śoka, Bhaya	and healthy Dhātu formation, while chronic stress and negative emotions disturb Doṣa balance and adversely affect Shukra
Cikitsā	Vājīkaraṇa, Snehana, Basti, Rasāyana	Ati-Vamana, Ati-Virecana (without proper indication)	Vājīkaraṇa and Rasāyana therapies nourish and rejuvenate Shukra Dhātu, whereas excessive Śodhana may cause tissue depletion if not indicated or properly administered.

Table 3. Correlation of Ayurvedic Principles with Modern Perspectives in the Management of Shukra Kṣaya

Ayurvedic Principle	Pathya-Apathya	Modern Correlation
Madhura, Snigdha, Guru Āhāra ¹⁹	Kṣīra, Ghṛta, Māṣa, Godhūma	Provides high-quality proteins, essential fatty acids, and balanced nutrition that support spermatogenesis and reproductive health
Vṛṣya Dravyas ²⁰	Aśvagandhā, Kapikacchu, Śatāvārī, Gokṣura	May improve semen quality, sperm count and motility, and exhibit antioxidant and adaptogenic activities
Rasāyana ²¹	Rasāyana therapy	May reduce oxidative stress, improve tissue rejuvenation, and enhance fertility potential.
Samyak Nidrā ²²	Adequate and timely sleep	Helps maintain circadian rhythm, testosterone secretion, hormonal balance, and overall reproductive function.
Brahmacarya / Yukti-Yukta Vyavāya ²³	Regulated sexual activity	Prevents excessive physical depletion, conserves reproductive energy, and supports reproductive health.
Harṣa, Prīti, Dhṛti ²⁴	Positive mental state	Reduces psychological stress, supports neuroendocrine balance, and may improve fertility outcomes
Abhyaṅga and Yoga	Daily Dinacaryā practices	Improve circulation, reduce stress, enhance physical well-being, and support hormonal homeostasis.
Ati-Vyāyāma (Apathya)	Excessive physical exertion	May increase oxidative stress, suppress reproductive hormones, and reduce semen quality.
Rātri-Jāgaraṇa (Apathya) ²⁵	Night awakening and sleep deprivation	Disturbs circadian rhythm, decreases testosterone secretion, and negatively affects reproductive function.
Kaṭu, Tikta, Kaṣāya-Dominant Āhāra (Apathya)	Excessively dry, pungent, bitter, and astringent diet	May contribute to nutritional deficiencies, increased oxidative stress, and impaired reproductive health when consumed excessively
Ati-Vyavāya (Apathya)	Excessive sexual activity	May lead to physical fatigue and a temporary decline in semen parameters and reproductive performance
Cintā, Śoka, Krodha (Apathya) ²⁶	Psychological stress	Elevates cortisol levels, disrupts the hypothalamic–pituitary–gonadal axis, and adversely affects fertility.

Figure 1. Probable Modern Mechanism of Pathya and Apathya in Shukra Kṣaya ²⁷

Pathya (Wholesome Diet & Lifestyle)	Apathya (Unwholesome Diet & Lifestyle)
Milk, Ghee, Almonds, Dates, Āmalakī (Amla), Regular Exercise, Proper Sleep	Junk Food, Soft Drinks, Alcohol, Smoking, Chronic Stress, Sleep Deprivation
↓	↓
Adequate Nutrition + Antioxidant Protection	Nutritional Deficiency + Oxidative Stress

↓ Healthy Hypothalamic–Pituitary–Gonadal (HPG) Axis Function	↓ HPG Axis Dysfunction
↓ Increased Leydig Cell Activity	↓ Reduced Leydig Cell Activity
↓ Normal Testosterone Production	↓ Reduced Testosterone Production
↓ Efficient Spermatogenesis	↓ Impaired Spermatogenesis
↓ Good Sperm Count, Motility, and Morphology	↓ Poor Sperm Count, Motility, and Morphology
↓ Healthy Male Reproductive Function and Preservation of Shukra Dhātu	↓ Impaired Male Reproductive Function and Shukra Kṣaya

Table 4. Key Nutrients,
Dietary Sources, and Their Role in Male Reproductive Health

Nutrient	Food Sources	Role in Male Reproductive Health
Zinc	Pumpkin seeds, sesame seeds, almonds	Supports testosterone synthesis, spermatogenesis, and sperm quality.
Selenium	Nuts, eggs, fish	Contributes to sperm motility, antioxidant defense, and fertility.
Protein	Milk, black gram, eggs	Essential for tissue repair, spermatogenesis, and overall reproductive function.
Healthy Fats	Ghee, walnuts, fish	Support hormone synthesis, including testosterone production.
Antioxidants	Āmalakī, pomegranate, grapes	Protect sperm from oxidative stress and improve sperm quality.
Vitamin D	Milk, egg yolk, sunlight exposure	Helps maintain testosterone levels and supports male reproductive function

II. DISCUSSION

Śukra is the *sapta* and final *Dhātu* in Ayurveda and is regarded as the essence of all preceding *Dhātus*. It plays a vital role in reproduction, vitality (*Bala*), and the maintenance of *Ojas*. Impairment of *Śukra Dhātu* results in *Śukra Kṣaya*, which is characterized by features such as diminished semen quantity, delayed ejaculation, infertility, weakness, fatigue, and decreased libido. The management of *Śukra Kṣaya* extends beyond pharmacological interventions and places considerable emphasis on *Pathya Ahāra* and *Pathya Vihāra*, while simultaneously avoiding

Apathya practices that contribute to *Dhātu* depletion.
28

The concept of *Pathya* occupies a pivotal place in *Ayurvedic* therapeutics. Ayurveda emphasizes that appropriate dietary and lifestyle practices help maintain *Doṣa* equilibrium, support *Agni*, and facilitate sequential *Dhātu Poṣaṇa*, ultimately leading to the proper formation and preservation of *Śukra Dhātu*. Foods possessing *Madhura Rasa*, *Snigdha*, *Guru*, *Bṛṃhaṇa*, *Balya*, and *Vṛṣya* properties—including *Kṣīra* (milk), *Ghṛta* (ghee), *Navanīta* (fresh butter), *Māṣa* (black gram), *Tila* (sesame), *Kharjūra* (dates), *Drākṣā* (grapes), and *Māṃsa Rasa* (meat soup)—are considered beneficial for nourishing

Dhātus and promoting reproductive health. Likewise, wholesome lifestyle measures such as *Brahmacarya*, *Samyak Nidrā*, *Abhyāṅga*, stress management, and regular physical activity contribute to the preservation of *Śukra* by maintaining physiological and psychological well-being.²⁹

Conversely, *Apathya Ahāra* and *Apathya Vihāra* play a significant role in the development of *Śukra Kṣaya*. Excessive sexual activity (*Ati-Maithuna*), excessive physical exertion (*Ati-Vyāyāma*), suppression of natural urges (*Vega-Dharaṇa*), sleep deprivation (*Rātri-Jāgarāṇa*), prolonged fasting (*Upavāsa*), and chronic psychological stress aggravate *Vāta Doṣa*, impair *Agni*, and disrupt normal *Dhātu* metabolism. Similarly, excessive intake of *Kaṭu*, *Tikta*, *Kaṣāya*, *Rūkṣa*, and *Vidāhi* foods may further compromise *Dhātu* nourishment, eventually resulting in depletion of *Śukra Dhātu* and impaired reproductive function.³⁰

A balanced diet rich in proteins, essential fatty acids, vitamins, minerals, and antioxidants supports hormonal homeostasis, spermatogenesis, and semen quality. Nutrients such as zinc, selenium, vitamin D, and antioxidant-rich foods have been associated with improved testosterone production, sperm motility, and protection against oxidative stress. Adequate sleep, regular physical activity, and effective stress management contribute to optimal hypothalamic–pituitary–gonadal (HPG) axis function and reproductive health. Conversely, smoking, alcohol consumption, poor nutrition, chronic stress, sleep deprivation, and excessive physical exertion have been associated with oxidative stress, hormonal imbalance, and deterioration in sperm count, motility, and morphology.³¹

The *Ayurvedic* principle that *Pathya* itself serves as a therapeutic measure is particularly relevant in the management of *Śukra Kṣaya*. Appropriate dietary and lifestyle modifications not only alleviate symptoms but also address the underlying factors responsible for impaired *Agni*, *Dhātu Kṣaya*, and compromised reproductive function. Therefore, integrating *Pathya*–*Apathya* principles with *Vṛjya* and *Rasāyana* interventions may provide a comprehensive, preventive, and holistic approach to maintaining *Śukra Dhātu* and promoting male reproductive health. Further experimental and clinical studies are needed to strengthen the evidence supporting these

principles and facilitate their integration into contemporary healthcare.³²

III. CONCLUSION

Śukra Kṣaya is characterized by the depletion or dysfunction of *Śukra Dhātu*, resulting in impaired reproductive health, reduced vitality, and diminished overall well-being. The present review highlights the importance of *Pathya Ahāra* and *Pathya Vihāra* in maintaining *Agni*, promoting *Dhātu Poṣaṇa*, preserving *Ojas*, and supporting the formation and function of *Śukra Dhātu*. Conversely, *Apathya Ahāra* and *Apathya Vihāra* contribute to *Doṣa* imbalance, impaired *Dhātu* nourishment, and progressive depletion of *Śukra*, thereby adversely affecting reproductive function.

A wholesome diet, adequate nutrition, antioxidant-rich foods, proper sleep, regular physical activity, stress management, and regulated sexual activity play an important role in maintaining reproductive health. Therefore, adherence to *Pathya* and avoidance of *Apathya* constitute a fundamental strategy for the prevention and management of *Śukra Kṣaya*. Integrating these principles with appropriate *Ayurvedic* interventions may provide a holistic approach to preserving male reproductive health, improving fertility potential, and enhancing quality of life. Further well-designed experimental and clinical studies are required to strengthen the evidence supporting these principles and their wider application in healthcare.³⁴

REFERENCES

- [1] Dr Brahmanad Tripathi charak samhita sutra sthana chapter 30/26 oriental chaukhamba surbharati prakashan Varanasi edition edition 2020 no 565
- [2] Dr Brahmanad Tripathi charak samhita sutra sthana 28/ 41-42 oriental chaukhamba surbharati prakashan Varanasi edition edition 2020 pg no 553
- [3] Prof K.R.Srikantha murthy chaukhamba susruta samhita sutra sthana chapter 15/9 orientalia varanasi reprint edition 2017 pg no100-101
- [4] Dr Brahmanad Tripathi charak samhita ;sutra sthana chapter 25/40 oriental chaukhamba

- surbharati prakashan Varanasi edition edition 2020 pg no 455
- [5] Dr Brahmanad Tripathi charak samhita;chikista sthana chapter 15/20 oriental chaukhamba surbharati prakashan Varanasi edition 2019 pg no 555
- [6] Dr Brahmanad Tripathi charak samhita; sutra sthana 17/69 oriental chaukhamba surbharati prakashan Varanasi edition edition 2020 pg no 351
- [7] Dr Brahmanad Tripathi charak samhita; sutra sthana chapter 26/43 oriental chaukhamba surbharati prakashan Varanasi edition edition 2020 pg no 485
- [8] Dr Brahmanad Tripathi charak samhita ;chikista sthana 1 (4)/30- oriental chaukhamba surbharati prakashan Varanasi edition 2019 pg no 69
- [9] Prof K.R.Srikantha murthy chaukhamba susruta samhita : sutra sthana chapter45/49-97 orientalia varanasi reprint edition 2017 pg no 334-345
- [10] Dr.R. vidyanath astanga hrdaya; sutra-sthana 5/21-22 oriental chaukhamba surbharati prakashan Varanasi edition 2026 pg no 71
- [11] Dr Brahmanad Tripathi charak samhita ;chikista sthana chapter 2(4)/ oriental chaukhamba surbharati prakashan Varanasi edition 2019,chapter vajikarana 9 pumanjatabaladiko vajikarana pada pg no 99
- [12] Sri brahma sankara misra and sri rupalalaji vaisya bhavaprakasa nighantu chapter guduchyadi varga/189 chaukhamba publication edition 2004 pg no 363
- [13] Dr Brahmanad Tripathi charak samhita; sutra sthana chapter 26/36 oriental chaukhamba surbharati prakashan Varanasi edition edition 2020 pg no 479
- [14] Dr Brahmanad Tripathi charak samhita ;chikista sthana chapter 2(1)/47 oriental chaukhamba surbharati prakashan Varanasi edition 2019,pg no 86
- [15] Dr Brahmanad Tripathi charak samhita ;chikista sthana chapter 27/24 oriental chaukhamba surbharati prakashan Varanasi edition edition 2020 pg no 504
- [16] Dr Brahmanad Tripathi charak samhita ;chikista sthana chapter 27/217-218 oriental chaukhamba surbharati prakashan Varanasi edition edition 2020 pg no 526
- [17] Dr Brahmanad Tripathi charak samhita ;chikista sthana chapter 27/124 oriental chaukhamba surbharati prakashan Varanasi edition edition 2020 pg no 515
- [18] Dr Brahmanad Tripathi charak samhita ;chikista sthana chapter 2(1)/42-43 oriental chaukhamba surbharati prakashan Varanasi edition 2019,chapter no pg no 85
- [19] Dr Brahmanad Tripathi charak samhita ; sutra sthana 26/42 oriental chaukhamba surbharati prakashan Varanasi edition 2020
- [20] Sri brahma sankara misra and sri rupalalaji vaisya bhavaprakasa nighantu chapter guduchyadi varga/189 chaukhamba publication edition 2004 pg no 363
- [21] Dr Brahmanad Tripathi charak samhita ;chikista sthana 1(1)/7 oriental chaukhamba surbharati prakashan Varanasi edition 2019 pg no 5-6
- [22] Dr. Brahmanad Tripathi charak samhita ;sutra sthana chapter 21/36-37 oriental chaukhamba surbharati prakashan Varanasi edition 2020 pg no 406-407
- [23] Dr Brahmanad Tripathi charak samhita ; sutra sthana 11/35 oriental chaukhamba surbharati prakashan Varanasi edition 2020 pg no 238-239
- [24] Dr Brahmanad Tripathi charak samhita : chikista sthana 2(4)/ oriental chaukhamba surbharati prakashan Varanasi edition 2019,pg no 100-101
- [25] Dr. Brahmanad Tripathi charak samhita sutra sthana chapter 11/35 oriental chaukhamba surbharati prakashan Varanasi edition 2020 pg no 238-239
- [26] Dr. Brahmanad Tripathi charak samhita sharira sthana chapter 1/20 oriental chaukhamba surbharati prakashan Varanasi edition 2020 pg 796
- [27] Kanthi Bansal oriental jaypee Brothers Medical publisher Daryaganj new Delhi edition 2004 chapter Anatomy and physiology reproductive Endocrinology in the male pg no 17-21
- [28] Prof K.R.Srikantha murthy chaukhamba susruta samhita : sutra sthana chapter 15/6 orientalia varanasi reprint edition 2017 pg no 99
- [29] Dr. Brahmanad Tripathi charak samhita sutra sthana chapter 17/69 oriental chaukhamba surbharati prakashan Varanasi edition 2020 pg no 351

- [30] Prof K.R.Srikantha murthy chaukhamba susruta
samhita : sutra sthana chapter 15/12 orientalia
varanasi reprint edition 2017 pg no 552
- [31] Dr Brahmanad charak samhita: chikista sthana
2(1)/42 oriental chaukhamba surbharati
prakashan Varanasi edition 2019, pg no 87
- [32] Dr Brahmanad charak samhita: chikista sthana
15/5 oriental chaukhamba surbharati prakashan
Varanasi edition 2019, pg no 551
- [33] Dr.R. vidyanath astanga hrdaya; sutra-
sthana 11/34 oriental chaukhamba surbharati
prakashan Varanasi edition 2026 pg no 195