



Review Article

AN ANALYSIS OF ETIOLOGICAL FACTORS AND PATHOGENESIS OF *KSHEENA SHUKRA* IN MALE INFERTILITY

Randhir Singh¹, Renu Dhanraj Jungare^{2*}

*¹Professor, ²PG Scholar, Rog Nidan Evam Vikriti Vigyan Department, Institute for Ayurved Studies and Research, Kurukshetra, Haryana, India.

Article info

Article History:

Received: 04-07-2025

Accepted: 08-09-2025

Published: 30-09-2025

KEYWORDS:

Male infertility,
Ayurveda,
Etiopathogenesis,
Oligospermia.

ABSTRACT

Infertility is characterized as the failure to conceive after 12 months of consistent unprotected sexual intercourse. Male infertility has emerged as a significant concern in contemporary society. The prevalence of this issue is increasing daily due to lifestyle changes. Factors contributing to male infertility encompass abnormal sperm production or function and/or difficulties in sperm delivery. Oligozoospermia refers to the male infertility condition identified by a low sperm concentration in the ejaculate. According to the World Health Organization (WHO), a low sperm count is defined as fewer than 20 million sperm per milliliter. A normal sperm count ranges from 20 to 150 million sperm per milliliter. Ayurveda has identified various terms associated with male infertility, including *Ksheena shukra*, *Ksheena retasa*, *Alpa retasa*, and *Shukra dosha*, which correspond to conditions linked with oligospermia. The current paper aims at putting forwards the etiopathogenesis of *Ksheena shukra* on the basis Ayurvedic concepts.

INTRODUCTION

15% of married couples globally face challenges with infertility, rendering it a worldwide issue.^[1] Infertility impacts 15-20% of the general population;^[2] male factors contribute to 20-40% of this, with an occurrence of approximately 23% in India. The World Health Organization (1992) defines oligospermia as having less than 15 million sperm per milliliter,^[3] while asthenozoospermia is characterized by spermatozoa with motility below 50% of active motile sperm.^[4]

According to Indian Philosophy, the four pillars of life are *Dharma*, *Artha*, *Kama*, and *Moksha*. Achieving these is impossible without offspring; the continuation of the human race also hinges on progeny. The perpetuation of species is a fundamental principle in nature.

Parenthood is one of the most desired goals for couples, and the inability to conceive brings significant distress. In India, infertility carries a social stigma, especially in rural regions, impacting couples' psychological well-being, sexual relationships, and social interactions. Infertility can cast a significant shadow over a woman's physiological and social adequacy, while also lowering the social standing of the male partner. Ayurveda explains that *Shukra dosha* represents a specific pathological condition that ultimately results in infertility. *Ksheena sukra* is a significant subtype of *Shukra Dosha*, characterized by a reduced level of *Shukra*, which ultimately results in a lack of productivity.^[5] The aim of this study is to analyse etiological factors and pathogenesis of *Ksheen shukra* in male infertility.

MATERIALS AND METHODS

All classical text available in modern and Ayurvedic literature is reviewed.

Database available after net surfing, modern text and various research articles was also reviewed.

Access this article online

Quick Response Code



<https://doi.org/10.47070/ayushdhara.v12i4.2164>

Published by Mahadev Publications (Regd.)
publication licensed under a Creative Commons
Attribution-NonCommercial-ShareAlike 4.0
International (CC BY-NC-SA 4.0)

AIM

To study in detail about etiopathogenesis of *Ksheena shukra* (oligospermia).

Review of Literature**Oligospermia modern view**

This condition oligospermia occurs due to etiological factors which affects spermatogenesis and also blockage in path, which carries sperms from testis to outside the body.⁽⁶⁾

Causes of oligozoospermia^[7]

- Obstruction of the normal flow of sperm.
- Hormonal disorders and diseases of the testicles.
- Adverse effects of some medications.
- Stress, smoking and alcohol consumption.
- Infection and sexually transmitted diseases.
- Irregular sexual intercourse.
- Malnutrition and obesity.

Vishishta Nidana of Ksheena shukra

- Lack of physical activity and conduction of disturbed life style pattern.
- Consumption of low protein and high fat diet.
- Bitter, astringent and spicy foods, etc.

Etiology (Nidana) of Ksheena shukra Ayurvedic view

The etiological factors can be broadly classified in to two categories.

Samanya nidana of Ksheena shukra

- Vataprakopaka Vihara
- Pittaparakopaka Ahara
- Sarvadoshaparakopaka Ahara
- Causes leading to Dhatukshaya
- Role of Abrahamacharya
- Causes connected with mind.
- Nidanarthakara Vyadhis
- Role of specified drugs

Aharaja Nidan	Viharaj Nidan	Mansik Nidan
1.Amla ras	37.Aayas	40.Krodh
2.Lavan ras	38.Chinta	41.Bhay
3.Katu ras	39.Ativyayam	42Shok
4.Tikta ras		43Nidra
5.Kashay ras		44.Ratrijagran
6.Kshar		45.Anidra
7.Virudh		46.Delayed sleep at night
8.Pishataanna		
9.Shami dhanya		
10.Til		
11.Atimatraashan		
12.Abhishndi		
13.Virudhad ahar		
14.Shuk dhanya		
15.Klinna ahar		
16.Shushk shak and mas		
17.Pinyak,palal		
18.Paryushit ahar		
19.Ruksha ahar		
20.Guru ahar		
21.Vishmashan		
22.Navdhanya		
23.Abhojnat		

24. Adhyashan		
25. Asatmyabhojan		
26. Sarshap tel		
27. Kulathya		
28. Semfali		
29. Lakuch		
30. Kalind		
31. Bibhitaki		
32. Haritakvarg		
33. Madhyapan		
34. Alpa ahar		
35. Aptarpan		
36. Gramyaahar		

RESULTS

Samanya Samprapti (Pathogenesis) of Ksheena Sukra

There are different causes for *Ksheena shukra* as explained under the heading *Nidana*. It includes both *Samanya* and *Vishishta nidana*. When an individual continuously comes in contact with specified causes of *Ksheena shukra*, first of all they vitiate both *Vata* and *Pitta* dosha and they undergo *Prakopa*. This is a common happening and from this stage the *samprapti* can be compiled in two different ways.

- Vata* and *Pitta* which has under gone *Prakopa* vitiate *Jatharagni* which in turn ends in the production of *Ama dosha*. The *Ama dosha* enters into the *Rasavaha srotas* and obstructs it. It affects the *Dhatu parinaman* (transformation of body tissues). The result is *Rakta dhatu Kshaya*. As a result of this, metamorphosis of *Dhatu* is hampered. Then *Majjavaha srotas* obstruction leads to poor nourishment of *Shukra dhatu* which produces *Shukra dhatu* of low quantity and quality, i.e., manifestation of *Ksheena shukra*.
- Here, the causes of *Ksheena shukra* make *Khavaigunya* in the *Shukravaha srotas* directly. The *Vata* and *Pitta* which are the causative doshas are still in the stage of *Prakopa*. They localise in the region where *Khavaigunya* has occurred in the *Shukra vaha srotas*. *Srotas* itself is made up of *Dushyas* and when the vitiated *Doshas* localize in the *Srotas*, *Doshadushya Samurchana* occurs. The *Prakupita doshas* i.e., *Vata* and *Pitta* with a potential of creating pathology in body interact with *Shukra dhatu*, thus *Ksheena shukra* occurs.

Components of Samprapti

Dosha: Vata and Pitta

Dushya: Shukra (mainly)

Ama: Jatharagnimandhyajanya

Srotas: Shukravaha srotas

Srotodusti Lakshna: Sanga

Vishishta Samprapti (Pathogenesis) of Ksheen Shukra

- Amla ras^[8]** - Consumption of *Amla ras* causes *Pitta abhivardhan* then *Shukranash*. Also *Amla ras* having *Amla vipak* causes *Pitta Vardhan* then *Shukranash*.
- Lavan ras^[9]** - Consumption of excessive *Lavana ras* causes *Pitta kop* and leads to *Punstavupahnti*.
- Katu ras^[10]** - *Katu ras* having *Katu vipak* causes *punstavupahnti*.
- Tikta ras^[11]** - *Tikta ras* having *Ruksha, Khar, Vishad* nature and it's excessive causes *Ras, Rudhir, Mansa, Medh, Asti, Majja, Shukra Upshay* i.e. *Ksheenshukra*.
- Kashay ras^[12]** - Excessive consumption causes *Strotus badhata* leading to *Punstavupahnan* i.e., *Ksheenshukra*.
- Kshar^[13]** - *Kshar* having *Guna* like *Ushna, Tishna, Laghu* i.e. opposite of *Shukra guna* and *Kshar* causing *Kled* then it doing *Shoshan* in body ultimately leads to *Ksheenshukra*.
- Virudh dhanya-** In such *Ankurit dhanya* there is fermentation occurs and they become *Amla pak dravya* and *Amla vipak* causes *Pitta Vardhan* then *Shukranash*.

- **8,10,16) Pishataanna, Til, Shushk shak and mas^[14]**
These are *Guru swabhav dravya* having *Pruthvi* and *Vayu mahabhuta* and digestive fire i.e. *Agni* is *Laghu*, hence these *Dravya* causes *Mandaagni*, as a result *Dosha prakop* occurs improper *Dhatu* production and finally *Shukrashay*.
- **9,23,28) Shami dhanya, Abhojan, Semphali-** They causes so much *Vata prakop* in body as a result *Apan vayu karma* gets disturbed and finally *Shukra shay*.
- **11) Atimatrashan^[15]**- Due to *Atimatrashan* causes *Prakop* of all the *Dosha* and going to accumulate in *Aamashaya* as a result digested food get *Vishthambit* and process of *Dhatu* production hampers leads to *Shukrashay*.
- **12) Abhishyandi-** These *Abhishyandi dravya* causes obstruction of *Shukravaha stratus* and then there is difficulty in ejaculation of *Shukra* outside the body
- **Viruddha ahar^[16]**- These *Dravya* are opposite to *Sharir Dhatu* and leads to improper *Dhatu* production hence *Shukrashay*.
- **14)Shuk dhanya^[17]**- Excessive consumption causes *Vata Prakop* and *Vata* having opposite qualities than *Shukra* leads to *Shukrashay*.
- **15,18) Kleen and Paryushit ahar-** Always *Ahitkar* for body
- **17)Pinyaak, Palal-** These *Dravya* causes *Prakop* of *Kapha* and *Pitta* then leads to *Shukra dushti*.
- **20,22) Guru ahar and Nav dhanya^[18]**- In ch.su.21, there are 8 *Shukra dosha* explains, one of the *Dosh* is *Guruta*, so that *Guru ahar* and *Nav dhanya* are *guru* causing *Shukra dushti*.
- **21) Vishmashan^[19]**- *Vishmashan* is *Agnivishamkar* as a result *Sharir dhatu* production decreases i.e., leads to *Shukrashay*.
- **24)Adhyashan^[20]**- *Adhyashan* is *Grahni dushak* causing improper *ahar pachan* as a result *Ras* to *Shukra dhatu* production hampers then finally *Shukra shay*.
- **25)Asatmyabhojan-** There are 3 reasons of any diseases *Asatmyaindriyarthsayog*, *Pradhanya paradh* and *Parinaam*, so that eating *Asatmyabhojan* is *Asatmyaindriyarthsayog* of *Rasnendriya*.
- **26) Sarshap tel^[21]** -Having *Rasa-Katu*, *Vipak-Katu*, *Guna- Laghu*, *Lekhan*, *Tishna*. All properties are opposite to *Shukra dhatu* finally causes *Shukrashay*.

- **27)Kulath^[22]**- *Rasa-Kshay*, *Vipak-Katu*, *Virya-Ushna*, having properties like *Vidahi*, causes *Pitta prakop* as a result *Hanti Shukra* i.e. *Shay*.
- **29)Lakucha^[23]**- *Guna- Ushan*, *Guru*, *Vishtambhi* and it causes all the *Dosha* and *Rakta dhatu Prakop* and *Shukrashay*.
- **30)Kalind^[24]**- In *Bhavprakash Nighantu* there is direct reference of *Kalind* as a *Shukrahar*.
- **31) Bibhitak^[25]**- Having *Rasa-Kshay*, *Vipak-Madhur*, *Virya-Ushna*, and it is *Pittanut*. *Ushnavirya* property is going to cause *Shukrashay*.
- **32)Haritak Varg^[26]**- It causes increases in *Pitta Dosha* and finally *Shukrashay* occurs.
- **33) Madhyapan^[27]**- *Madhya* having 10 *Guna* which are totally opposite to *Oja guna* and *Oja guna* are same as *Shukra guna* hence *Madhyapan* causes *Shukra* to reduce.
- **34) Alpa ahar^[28]**- Eating less food than body's requirement causes *Rasadhatu shay* which further leads to all *Dhatu shay*, ultimately *Shukrashay*.
- **35)Aptarpan^[29]**- Whenever there is *Aptarpan* of body, *Agni* and *Sharir Bala* reduces leading to *Varn*, *Oja*, *Mansa* and *Shukra shay*.
- **36)Gramyaahar-** In ch.chi 2 i.e., *Vajikaran* chapter, direct reference is given for *Gramyaahar* is *Shukrashaykar*.
- **Viharaj nidan**
- **37)Aayas^[30]**- Doing excessive *Vyayam* leads to all *Saptadhatu shya* finally *Shukrashay*.
- **Mansik nidan**
- **38,40,41,42) Chhinta, Krodh, Bhay, Shok-**
- All these *Nidana* causing *Badhit dhatu poshan* and *Mansik shaythilya* by the action of *Mansik bhava*.
- **39)Ativyavay^[31]**- *Atimaithun* causes *Shukravaha stratus dushti* leading to *Shukrashay*.
- **43)Nidra^[32]**- *Divaswapn* causes *Prakop* of *Kapha* and *Pitta* then leads to *Shukrashay*.
- **44)Ratrijagran^[33]**- *Ratrijagran* causes *Vata* to *prakop* and then *Shukra shay*.
- **45)Anidra^[34]**- *Anidra* causes *Rog*, *Krushta* and *Klibta*.
- **46)Delayed sleep or Alpa nidra=** It is *Pitta lakshan* and *Pitta* causes *Shukra shay*.

DISCUSSION

Male infertility has garnered less focus, despite being widely acknowledged. A population study on infertility indicates that the male factor alone contributes between 26.2% and 46.6% to infertility rates. (Insler & Lunenfeld-1993). The

normal functioning of the testes is the result of several interrelated factors, including genetic, anatomical, endocrine, immunological, biochemical, environmental, and sexual influences. Any abnormality in these factors can disrupt sperm production and androgen secretion. Consequently, the resulting semen of inferior quality and quantity is marked by a low sperm concentration, diminished motility, and an increase in abnormal morphology, ultimately leading to a reduced conception rate. It is concerning that the declining trend in sperm concentration affects males worldwide, jeopardizing men's reproductive capabilities. Moreover, this decline may threaten the fertility potential of future generations. The most prevalent cause of male infertility is the inability to produce a sufficient number of healthy sperm, resulting in oligozoospermia, which is characterized by a decreased healthy sperm count per ejaculation. Ayurveda describes *Sukra Dosha* as one of the conditions that can lead to infertility. *Ksheena sukra* is a significant type of *Sukra dosha*, characterized by a reduced level of *Sukra*, ultimately resulting in infertility.

CONCLUSION

The article provides a comprehensive understanding of *Ksheen shukra* in male infertility from Ayurvedic perspective, emphasizing the importance of maintain *Doshik* balance through preventive measures. This holistic approach not only addresses etiology but also pathogenesis of *Ksheen shukra* and consider the broader context of individual well-being.

REFERENCES

1. Sharlip ID, Jarow JP, Belker AM, Lipshultz LI, Sigman M, Thomas AJ, et al. Best practice policies for male infertility. *Fertility and Sterility*. 2002; 77(5): 873-882.
2. George SS, Fernandes HA, Irwin C, Chandy A, George K. Factors predicting the outcome of intracytoplasmic sperm injection for infertility. *PubMed*. 2003; 16(1): 13-15.
3. Zargar AH, Wani AI, Masoodi SR, Laway BA, Salahuddin M. Epidemiologic and etiologic aspects of primary infertility in the Kashmir region of India. *Fertility and Sterility* [Internet]. 1997 Oct 1 [cited 2021; 68(4): 637-43. Available from: <https://www.sciencedirect.com/science/article/abs/pii/S0015028297002690>
4. Malhotra N, Kumar P, Malhotra J, Bora NM, Mittal P. Jeffcoate's Principles of Gynaecology. New Delhi: Jaypee Brothers Medical Publishers Pvt. Limited; c2014.
5. Girish KJ. Revival of Vajikaranatantra: Ayurved related to Vajikaranatantra over past 45 years. *Journal of Ayurveda*. 2007; 1(1): 60-66.
6. *Journal of Ayurveda*, Oct-Dec, 2014; 149: 4. National Institute of Ayurveda, Gov. of India Madhav Vilas Palace, Amer Road, Jaipur.
7. Marcia C. Inhorn, Global infertility and the globalization of new reproductive technologies: illustrations from Egypt, *Social Science & Medicine*, May, 2003; 56(9): 1837-1851.
8. Kashinath Shastri, *Charak Samhita Sutrasthan*, Vol. 1, Chaukhamba Bharti Academy, Varanasi, 2024; Chapter no. 26, Shloka no. 42/2, p-439.
9. Kashinath Shastri, *Charak Samhita Sutrasthan*, Vol. 1, Chaukhamba Bharti Academy, Varanasi, 2024; Chapter no. 26, Shloka no. 42/2, p-440.
10. Kashinath Shastri, *Charak Samhita Sutrasthan*, Vol. 1, Chaukhamba Bharti Academy, Varanasi, 2024; Chapter no. 26, Shloka no. 42/2, p-440.
11. Kashinath Shastri, *Charak Samhita Sutrasthan*, Vol. 1, Chaukhamba Bharti Academy, Varanasi, 2024; Chapter no. 26, Shloka no. 42/2 p-441
12. Kashinath Shastri, *Charak Samhita Sutrasthan*, Vol. 1, Chaukhamba Bharti Academy, Varanasi, 2024; Chapter no. 26, Shloka no. 42/2, p-441.
13. Kashinath Shastri, *Charak Samhita Vimansthan*, Vol. 1, Chaukhamba Bharti Academy, Varanasi, 2024; Chapter no. 1, Shloka no. 17, p-603.
14. Kashinath Shastri, *Charak Samhita Sutrasthan*, Vol. 1, Chaukhamba Bharti Academy, Varanasi, 2024; Chapter no. 5, Shloka no. 5, p-91.
15. Kashinath Shastri, *Charak Samhita Vimansthan*, Vol. 1, Chaukhamba Bharti Academy, Varanasi, 2024; Chapter no. 1, Shloka no. 7, p-611.
16. Kashinath Shastri, *Charak Samhita Sutrasthan*, Vol. 1, Chaukhamba Bharti Academy, Varanasi, 2024; Chapter no. 26, Shloka no. 81-102, p-450-455.
17. Kashinath Shastri, *Charak Samhita Sutrasthan*, Vol. 1, Chaukhamba Bharti Academy, Varanasi, 2024; Chapter no. 26, Shloka no. 8-10, p-422.
18. Kashinath Shastri, *Charak Samhita Sutrasthan*, Vol. 1, Chaukhamba Bharti Academy, Varanasi, 2024; Chapter no. 21, Shloka no. 4, p-356.
19. Kashinath Shastri, *Charak Samhita Sutrasthan*, Vol. 1, Chaukhamba Bharti Academy, Varanasi, 2024; Chapter no. 25, Shloka no. 40, p-406.
20. Kashinath Shastri, *Charak Samhita Sutrasthan*, Vol. 1, Chaukhamba Bharti Academy, Varanasi, 2024; Chapter no. 25, Shloka no. 40, p-406.

21. Prof. Krushnachandra Chunekar, Bhavprakash, Nighantu Chaukhamba Bharti Academy, Varanasi, 2015; Tel Varg, Shloka no.15, p-764
22. Prof. Krushnachandra Chunekar, Bhavprakash, Nighantu Chaukhamba Bharti Academy, Varanasi, 2015; Dhanya Varg, Shloka no.61, p-638.
23. Prof. Krushnachandra Chunekar, Bhavprakash, Nighantu Chaukhamba Bharti Academy, Varanasi, 2015; Aamradiphal Varg, Shloka no.26, p-543.
24. Prof. Krushnachandra Chunekar, Bhavprakash, Nighantu Chaukhamba Bharti Academy, Varanasi, 2015; Aamradiphal Varg, Shloka no.37, p-543.
25. Prof. Krushnachandra Chunekar, Bhavprakash, Nighantu Chaukhamba Bharti Academy, Varanasi, 2015; Haritkyadi Varg, Shloka no.37, p-9.
26. Prof. Krushnachandra Chunekar, Bhavprakash, Nighantu Chaukhamba Bharti Academy, Varanasi, 2015; Haritkyadi Varg, Shloka no.1-261, p-3-165.
27. Kashinath Shastri, Charak Samhita Chikitsasthan, Vol. 2, Chaukhamba Bharti Academy, Varanasi, 2024; Chapter no. 24, Shloka no. 30, p-609
28. Kashinath Shastri, Charak Samhita Chikitsasthan, Vol. 2, Chaukhamba Bharti Academy, Varanasi, 2024; Chapter no. 15, Shloka no.4, p-409.
29. Kashinath Shastri, Charak Samhita Sutrasthan, Vol. 1, Chaukhamba Bharti Academy, Varanasi, 2024; Chapter no. 23, Shloka no. 27, p-433.
30. Kashinath Shastri, Charak Samhita Sutrasthan, Vol. 1, Chaukhamba Bharti Academy, Varanasi, 2024; Chapter no. 7, Shloka no. 33, p-143.
31. Kashinath Shastri, Charak Samhita Vimansthan, Vol. 1, Chaukhamba Bharti Academy, Varanasi, 2024; Chapter no. 5, Shloka no. 19, p-635.
32. Kashinath Shastri, Charak Samhita Sutrasthan, Vol. 1, Chaukhamba Bharti Academy, Varanasi, 2024; Chapter no. 21, Shloka no. 44, p-365.
33. Kashinath Shastri, Charak Samhita Sutrasthan, Vol. 1, Chaukhamba Bharti Academy, Varanasi, 2024; Chapter no. 21, Shloka no. 50, p-366.
34. Kashinath Shastri, Charak Samhita Sutrasthan, Vol. 1, Chaukhamba Bharti Academy, Varanasi, 2024; Chapter no. 21, Shloka no. 36, p-363.

Cite this article as:

Randhir Singh, Renu Dhanraj Jungare. An Analysis of Etiological Factors and Pathogenesis of Ksheena Shukra in Male Infertility. AYUSHDHARA, 2025;12(4):119-124.

<https://doi.org/10.47070/ayushdhara.v12i4.2164>

Source of support: Nil, Conflict of interest: None Declared

***Address for correspondence**

Dr. Randhir Singh

Professor

Rog Nidan Evam Vikriti

Vigyan Department,

Institute for Ayurved Studies and Research, Kurukshetra, Haryana.

Email:

singhrandhir13476@gmail.com

Disclaimer: AYUSHDHARA is solely owned by Mahadev Publications - A non-profit publications, dedicated to publish quality research, while every effort has been taken to verify the accuracy of the content published in our Journal. AYUSHDHARA cannot accept any responsibility or liability for the articles content which are published. The views expressed in articles by our contributing authors are not necessarily those of AYUSHDHARA editor or editorial board members.