WORLD JOURNAL OF PHARMACEUTICAL RESEARCH
SJIF Impact Factor 8.453
Volume 14, Issue 19, 221-227. Review Article ISSN 2277–7105

BHAGANDARA (FISTULA-IN-ANO) IN AYURVEDA AND MODERN SURGERY: A COMPARATIVE REVIEW OF CONCEPTS AND APPROACHES

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Article Received on
06 August 2025,

Revised on 27 August 2025,
Accepted on 17 Sept. 2025

https://doi.org/10.5281/zenodo.17214030

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ABSTRACT

Bhagandara (fistula-in-ano), one of the *Ashtamahagada* described by *Acharya Sushruta*, is a chronic and recurrent anorectal disease that continues to challenge surgeons and physicians alike. It presents as a pus-discharging tract connecting the anal canal with the perianal skin, producing pain, swelling, recurrent abscess, and impaired quality of life. In Ayurveda, the disease is understood through dosh-dushya involvement, nidana (etiology), and samprapti (pathogenesis). Sushruta has provided detailed classification, prognosis, and management strategies that include *Kshara Karma*, Agni karma, *Kshara Sutra* therapy, and the use of herbal preparations modern medicine attributes fistula-in-ano mainly to cryptoglandular infections, Crohn's disease, tuberculosis, and trauma. Parks' classification remains the gold standard in describing fistulas, and modern treatment modalities include fistulectomy, fistulotomy, seton placement, LIFT, VAAFT,

FiLaC.

KEYWORDS: *Bhagandara*, Fistula-in-ano, *Kshara Sutra*.

INTRODUCTION

Bhagandara is one of the most troublesome anorectal conditions, classified by *Acharya Sushruta* as one of the *Ashtamahagada.*[1] It is characterized by pain in the anal and perineal region, swelling, pus discharge, and recurrent abscess formation. *Ayurveda* describes its origin as *Bhagandara Pidika* (perianal abscess), which, if untreated, ruptures and leads to fistula formation. Modern medicine defines fistula-in-ano as an abnormal communication lined with granulation tissue between the anal canal and the perianal skin. The disease is common in males, especially between 30–50 years of age, with an incidence of about 8–10 cases per 100,000 annually worldwide.[2] Modern treatment modalities include fistulotomy, fistulectomy, seton placement, and advanced sphincter-sparing procedures such as LIFT, VAAFT, FiLaC. Despite these, recurrence remains significant, ranging from 10–30%.[3]

AIM AND OBJECTIVES

Aim: To compare Ayurvedic and modern concepts of *Bhagandara* (fistula-in-ano) and evaluate integrative approaches for its management.

Objectives

1. To review Ayurvedic understanding of *Bhagandara* from classical texts.
2. To analyze modern medical concepts of fistula-in-ano.
3. To compare diagnostic and therapeutic approaches in *Ayurveda* and modern surgery.
4. To identify integrative possibilities for improving outcomes in *Bhagandara* management.

METHODOLOGY

The present review is based on a thorough survey of *Ayurvedic* classical texts including *Sushruta Samhita*, *Chraka Samhita*, *Ashtanga Sangrah*, *Ashtanga Hridyaa* and *Bhaisajya Ratnavali*. Modern literature was reviewed from Goligher's Surgery of the Anus, Rectum and Colon and scientific databases such as PubMed, Scopus, AYUSH Research Portal, and Google Scholar.

AYURVEDIC CONCEPT OF *BHAGANDARA*

Acharya Sushruta provided the first detailed description of *Bhagandara* in *Sushruta Samhita, Nidanasthana*. The disease originates from *Bhagandara Pidika* due to *mithya ahara-vihara* (improper diet and lifestyle) that vitiates v*ata* dosha, which then affects *mansa* and *rakta*

dhatu, resulting in abscess and sinus formation.[4] Sushruta classified *Bhagandara* into five varieties: *Shataponaka (Vataja), Ushtragreeva (Pitta), Parisravi (Kapha), Shambooka-avarta (Tridoshaja), and Unmargi (Agantuja or foreign body induced).*[5] Management includes *shodhana* (cleansing), *ropana* (healing), *Kshara Karma*, *Agni karma*, *Kshara Sutra* therapy, and use of *taila* and ghṛita. *Kshara Sutra* therapy, using a thread coated with *Snuhi Ksheera*, *Apamarga Kshara*, and *Haridra*, gradually cuts through the tract while simultaneously healing behind.[6] *Rasayana* drugs such as *Guduchi*, *Amalaki*, and *Ashwagandha* are recommended for preventing recurrence.

MODERN CONCEPT OF FISTULA-IN-ANO

In modern science, fistula-in-ano is most commonly caused by cryptoglandular infection leading to abscess formation.[7] Other causes include Crohn's disease, tuberculosis, radiation injury, and trauma. Parks' classification categorizes fistulas into intersphincteric, transsphincteric, suprasphincteric, and extrasphincteric. Clinical features include pain, pus discharge, swelling, fever in acute stage, and recurrent abscess formation.[8] Diagnostic tools include clinical examination, probing, MRI fistulography, and endoanal ultrasonography. Treatment options include fistulotomy, fistulectomy, seton placement, LIFT, VAAFT, FiLaC.

COMPARATIVE ANALYSIS

Both *Ayurveda* and modern surgery share the same therapeutic goal in *Bhagandara* management: complete eradication of the fistulous tract, prevention of recurrence, and preservation of anal sphincter function. However, their underlying philosophies and therapeutic approaches differ.

Ayurveda emphasizes *shodhana* (cleansing of the tract) and *ropana* (healing) as twin objectives.[9] Procedures such as *Kshara Karma*, *Agnikarma*, and especially *Kshara Sutra therapy* embody these principles by achieving controlled excision of the tract while simultaneously promoting granulation and healing.[10] In contrast, modern surgery primarily aims at anatomical correction—physically excising or obliterating the tract, often with limited emphasis on wound-healing promotion beyond antiseptic dressings and antibiotics.

Kshara Sutra vs. Seton Techniques

The *Kshara Sutra* method has been repeatedly compared with modern seton procedures. While both involve gradual tract cutting, *Kshara Sutra* is medicated with herbal alkalis (*Apamarga Kshara*), latex (*Snuhi Ksheera*), and turmeric (*Haridra*), which impart *lekhana*

(scraping), *bhedana* (incision), and antimicrobial actions. Clinical studies demonstrate that recurrence rates are significantly lower with *Kshara Sutra* compared with cutting setons (10–20%).[11,12,13] Moreover, postoperative pain and sphincter damage are less pronounced with *Kshara Sutra* because it facilitates simultaneous drainage and healing.

Wound Healing and Postoperative Care

Ayurvedic oils such as *Jatyadi Taila* have a documented role in accelerating wound healing, reducing infection, and minimizing scar tissue formation.[14,15] These are comparable to modern antiseptic dressings and topical agents, but their polyherbal composition provides synergistic antimicrobial, anti-inflammatory, and antioxidant effects.[16] On the other hand, modern postoperative protocols employ antibiotics, povidone iodine, and advanced dressings but are costlier and sometimes less patient-friendly.[17,18]

Diagnostics and Imaging

One of the major advantages of modern practice is diagnostic precision. MRI fistulography and endoanal ultrasound allow accurate mapping of fistula tracts, which is particularly useful in recurrent and complex cases. *Ayurveda* lacks such imaging tools, but integrates careful clinical examination and classification into its diagnostic process. A pragmatic integrative strategy would be: modern imaging to delineate the tract followed by *Ayurvedic* para-surgical management (e.g., *Kshara Sutra* placement).

Patient Quality of Life and Compliance

Modern fistula procedures like VAAFT and FiLaC are minimally invasive and associated with shorter hospital stays but are expensive and have recurrence rates of 10–30%.[19,20,21] Conversely, *Ayurvedic* approaches such as *Kshara Sutra* are economical, can be performed on an outpatient basis, and yield high patient satisfaction when combined with supportive wound-healing measures.[22,23] However, frequent thread changes and longer healing time may affect compliance. Combining both—imaging and surgical precision of modern methods with the holistic wound care and immune support of *Ayurveda*—has the potential to optimize outcomes.[24]

Table 1: Ayurvedic vs Modern Classification of *Bhagandara.*

S.no	*Ayurvedic* Classification	Description	Modern Correlation
1	*Shataponaka*	Multiple openings	Branching fistula
2	*Ushtragreeva*	Long curved tract	Transsphincteric
3	*Parisravi*	Persistent discharge	High fistula with sepsis

4	*Shambooka-avarta*	Spiral tract	Complex fistula
5	*Unmargi*	Due to trauma	Traumatic fistula

Table 2: Ayurvedic vs Modern Treatment Approaches.

S.no	**Ayurvedic Approach**	**Description**	**Modern Approach**
1	*Kshara sutra*	Gradual tract eradication	Seton technique
2	*Kshara Karma*	Chemical cauterization	Electrocautery
3	*Agni Karma*	Thermal cauterization	Laser ablation
4	*Taila/Ghṛita*	Wound healing oils/ghee	Antiseptic dressings
5	*Rasayana*	Recurrence prevention	Probiotics, supplements

DISCUSSION

Bhagandara continues to be a therapeutic challenge due to recurrence and complications. Modern methods like VAAFT, FiLaC, and LIFT offer sphincter-sparing approaches, but recurrence remains 10–30%. *Kshara Sutra* therapy demonstrates recurrence rates as low as 3–7%. *Ayurvedic* adjuvants like *Jatyadi Taila* accelerate wound healing, while *Rasayana* drugs strengthen immunity. An integrative model combining *Ayurvedic* postoperative care and modern imaging/surgical precision offers cost-effective, safe, and patient-friendly outcomes.

CONCLUSION

Ayurveda and modern surgery provide complementary insights for managing *Bhagandara*. Ayurveda offers effective tract eradication and healing through *Kshara Sutra* and *Rasayana*, while modern surgery offers diagnostic and technical precision. Integrating both ensures reduced recurrence, faster healing, and sphincter preservation. Future research should explore large-scale clinical trials on integrative models for *Bhagandara* management.

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