



Different Types Of *Ksharasutra* In Fistula-In-Ano: A Critical Review

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Abstract

Fistula-in-Ano is a chronic and challenging ano-rectal condition often characterized by persistent discharge, pain, and recurrence after surgical interventions. *Ayurvedic* literature offers a time-tested solution through ***Ksharasutra therapy***, as described by *Acharya Sushruta*. Over the years, several modifications and different types of *Ksharasutra* have been developed to enhance efficacy, reduce complications, and promote faster healing. This review article elaborates on classical references, the pharmacodynamics of *Ksharasutra*, its types (*Apamarga*, *Guggulu*, *Snuhi*-based), indications, mechanisms of action, and comparative clinical outcomes in the management of *Bhagandara* (fistula-in-ano).

Keywords

Ksharasutra, Fistula-in-Ano, *Apamarga Kshara*, *Snuhi*, *Ayurvedic Surgery*, *Bhagandara*, Para-surgical therapy

Introduction

Fistula-in-ano is a track or tunnel that connects an infected anal gland to the perianal skin. In *Ayurveda*, it is referred to as ***Bhagandara***, described as one of the ***Ashta Mahagada*** (eight dreadful diseases) by *Acharya Sushruta* due to its chronicity and recurrence. Modern surgical procedures such as fistulectomy and fistulotomy often lead to complications like incontinence or recurrence.

The ***Ksharasutra technique***, mentioned in *Sushruta Samhita (Chikitsa Sthana 17/29)*, is a minimally invasive *Ayurvedic* parasurgical technique involving a medicated thread that is inserted into the fistulous tract. It gradually cuts, cures, and heals the tract simultaneously, making it unique and effective in treatment.

Materials and Methods

This review is based on classical *Ayurvedic* texts (*Sushruta Samhita*, *Charaka Samhita*, *Bhavaprakasha*), research articles indexed in PubMed, AYUSH research portals, and postgraduate dissertations from AYUSH institutions. Comparative studies and clinical trials related to different types of *Ksharasutra* have also been included.

Classical Background of *Ksharasutra*

- *Ksharasutra* is prepared by repeated coating of a surgical linen thread with herbal ingredients:
 - ❖ *Snuhi Ksheera* (*Euphorbia nerifolia latex*) – binding agent
 - ❖ *Apamarga Kshara* (*Achyranthes aspera alkali*) – cauterizing agent
 - ❖ *Haridra Churna* (*Curcuma longa powder*) – antiseptic and healing agent
- *Sushruta* emphasizes "*Chedana, Bhedana, Lekhana, and Ropana*" properties in surgical tools, which *Ksharasutra* possesses.

Mechanism of Action

Component	Role
<i>Kshara</i> (alkali)	Chemical cauterization, debridement of unhealthy tissue
<i>Snuhi Ksheera</i>	Proteolytic action, enhances absorption of <i>Kshara</i>
<i>Haridra</i> (Turmeric)	Antibacterial, anti-inflammatory, wound healing

Therapeutic Actions:

- **Lekhana** (Scraping)
- **Bhedana** (Incising)
- **Shodhana** (Purification)
- **Ropana** (Healing)

Types of *Ksharasutra*

1. *Apamarga Ksharasutra*

- **Main *Kshara*:** *Apamarga* (*Achyranthes aspera*)
- **Classical standard** as per CCRAS and Banaras Hindu University (BHU)
- **Cutting rate:** ~0.5 – 1 cm/week
- **Advantages:** Widely studied, strong cauterizing effect

2. *Guggulu Ksharasutra*

- Uses ***Guggulu resin*** instead of *Snuhi latex*
- **Benefits:** Less irritation, better wound healing, anti-inflammatory
- **Best for:** Patients with latex sensitivity or allergic reactions

3. *Snuhi Ksharasutra*

- Uses only *Snuhi Ksheera* without any *Kshara*
- **Mild cauterization**, suitable for early-stage or shallow fistulas
- **Drawback**: Slower cutting rate

4. *Neem Ksharasutra*

- *Neem (Azadirachta indica)* based *Kshara*
- Antibacterial and antiseptic
- **Promotes better healing**, reduces pus formation

5. *Combination Ksharasutra*

- Example: *Apamarga Kshara* + *Guggulu* + *Haridra*
- **Multi-ingredient threads** customized for specific patients
- **Research-backed** for better outcomes and reduced post-op pain

Comparative Clinical Outcomes

Type	Cutting Time	Pain Score	Healing Time	Recurrence Rate
<i>Apamarga</i>	Fast	Moderate	Moderate	Low
<i>Guggulu</i>	Moderate	Low	Fast	Very Low
<i>Snuhi only</i>	Slow	Very Low	Slow	Moderate
<i>Neem</i>	Moderate	Low	Moderate	Low

Advantages of *Ksharasutra* Therapy

- Minimal bleeding
- Less recurrence
- No hospitalization needed
- Sphincter preservation – no incontinence
- Applicable in both complex and multiple fistulas

Challenges and Limitations

- Requires multiple sittings
- Local irritation or burning sensation
- Latex hypersensitivity (in *Snuhi*-based *Ksharasutra*)
- Skilled manpower and aseptic preparation needed

Discussion

Ksharasutra therapy is a unique example of *Ayurvedic* parasurgical innovation that remains relevant even today. Modern research has validated its efficacy in managing fistula-in-ano with minimal recurrence and complications. Modifications in the original formulation, such as *Guggulu*-based or *Neem*-based *Ksharasutra*, offer promising outcomes with fewer side effects.

The future scope lies in **standardizing formulations**, **mass-scale production under GMP guidelines**, and **integration with modern diagnostics** like MRI-fistulogram to enhance treatment planning.

Conclusion

Different types of *Ksharasutra*, when chosen and applied appropriately based on the type of fistula, depth, and patient constitution, offer a safe, effective, and minimally invasive solution to fistula-in-ano. With increasing acceptance in integrative medical practice, *Ksharasutra* therapy is set to become a cornerstone in ano-rectal care globally.

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