

**ETIOPATHOLOGY OF FISTULA, COMPLICATIONS AND THEIR MANAGEMENT  
THROUGH KSHAR SUTRA**

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**ABSTRACT**

Fistula-in-ano is an inflammatory channel characterized by an external orifice on the perianal skin and internal orifice in the anal canal or rectum. The canal is usually lined by unhealthy granulation and fibrous tissue. In Ayurveda this condition is equivalent to *Bhagandara* and the disease is difficult to cure. One of the most suitable treatment options for Fistula is *Kshar Sutra* ligation. It relieves pain, resists pus discharge and reduces size of the entire fistulous tract. The *Kshar Sutra* procedure is generally conducted under local anesthesia and consists of placing a medicated thread in an appropriate position in the anus to alleviate anal muscle spasm and allow early healing process. The *Ksharasutra* functions via mechanical and chemical processes in which alkaline surface allows gradual cutting, cleansing and healing to the fistulous tract, which aids in faster recovery. This article explores etiopathology of fistula, its complications and management through Ayurvedic approaches especially *Kshar Sutra*.

**KEYWORDS:** *Ayurveda, Shalya Tantra, Fistula, Kshar Sutra, Ligation.*

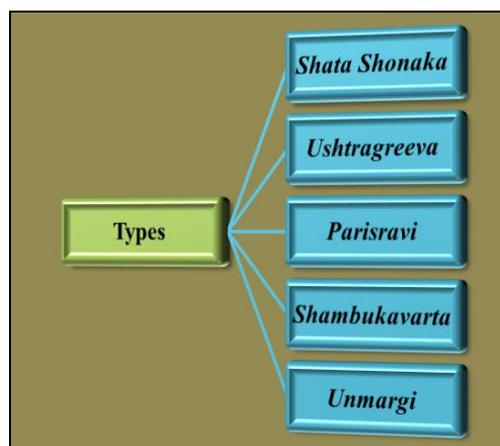
**INTRODUCTION**

Ano-rectal disorders present with varied signs and are due to either structural change/s or a functional disturbance/s. Fistula is described as an abnormal chronic tubular tract lined with granulation tissue that course from the internal opening of the anorectal lumen to the perineum or nearby structures. Most anal fistulas are formed from anal gland infection resulting in abscess formation within the intersphincteric plane. Sepsis can extend in all directions once informed, which initially opens internally as well as externally.<sup>[1-3]</sup>

In Ayurveda, the terminology of *Bhagandara* is derived from two words, *Bhaga*, which indicates the perineal area or the *Basti* and *Guda* areas, and *Darana*, meaning to tear or break tissues. This condition is characterized by a *Pidika* deeply lodged and located around the *Guda* within two finger-breadths, accompanied by fever and pain, presence of the sore in the anal region, no larger than the distance of two fingerbreadths from the anus; a deep tract with either a single or multiple external

openings; and possibly associated symptoms of pain, fever, and discharge.

From a contemporary medical standpoint, fistula is characterized as an abnormal connection or channel between the anal canal and the perianal skin, which generally arises from complications related to an anorectal abscess that either ruptured on its own or was inadequately drained. This condition subdivided into five types as depicted in **Figure 1**. As mentioned in figure *Shata Shonaka* is first type which resulting from a disequilibrium of *Vata Dosha*, *Ushtragreeva* is resulting from a relation to *Pitta Dosha*, *Parisravi* is related to causation by *Kapha Dosha*, *Shambukavarta* is caused related to the presence of *Tridoshaja* or dis-equilibrium of the three *Doshas*; and *Unmargi* is caused secondary to some degree of traumatic injury.<sup>[3-5]</sup>



Types of Bhagandara

### Complications of Fistula

Recurrence is a common complication due to ongoing activity of the primary source of infection, incomplete excision of the tract, or the presence of one or more secondary tracts. Another common problem is the formation of abscesses, which occurs due to blockage of the internal opening or the creation of inadequate drainage and subsequent reaccumulation of pus. Incontinence of feces or flatus may develop from damage to the sphincter muscles, which may occur during surgery or from fibrosis related to the disease. Loss of control of fecal material is a sign of damage to the sphincter. This may be interpreted as *Apana Vata Vaigunya*, which is a result of *Vata Dushti* specifically in *Guda Vata*. The formation of strictures or fibrosis can be likened to *Stambha* or *Sankocha* in *Guda Srotas*. At a systemic level, chronic fistulous tracts may lead to sepsis, fever, which can be correlated to *Vishama Jwara* or *Sannipataja Avastha* in Ayurveda.<sup>[4-6]</sup>

### Treatment

Ayurveda suggested several options for managing such types of conditions; *Shastra Karma* and *Anushastra Karma* mainly indicated which involves therapeutic practices including *Agnikarma*, *Jalaukavacharana* and *Ksharakarma*. *Kshara* regarded as essential form of para-surgery, with action of excising, incising, scraping and pacification of all three *Dosha*. As a form of *Kshara* applied as *Ksharasutra*, has shown remarkable in the

treatment of ano-rectal disorders due to being simple, effective, and low rates of recurrence. The *Ksharasutra* is mentioned repeatedly in the *Sushruta Samhita* in reference to management of *Nadivrana*, while *Chakradatta* mentions a medicated thread covered with *Snuhi* latex and *Haridra* powder for the management of *Arsha* and *Bhagandara*.<sup>[5-7]</sup>

### Role of Kshara Sutra

*Kshara sutra* ligation is more effective and safe, with fewer complications, rapid healing, and lower recurrence rates. *Kshara* is the best of all surgical and para-surgical procedures, as it is capable of performing the functions of *Chedana*, *Bhedana* and *Lekhana*, while reducing *Tridosha* imbalance simultaneously. *Kshara* has important qualities and performs actions such as *Pachana*, *Katuka*, *Vilayana*, *Shodhana*, *Ropana*, *Stambhana*, *Lekhana* and *Krimighna*. It normalizes *Ama*, *Kapha*, *Visha* and *Medo Dhatu*.

The *Ksharasutra* is a tissue destructive medicated thread coated with caustic, which used chemical debridement to mechanically cut through the devitalized tissues, allowing progresses of tract excision and healing. The preparation method includes smearing a thread in *Snuhi* latex, which was then coated in *Haridra* powder. The *Ksharasutra* demonstrates actions of cutting and incising through the hydrolysis of the *Kshariya Guna* and through the herbal substances. *Apamarga Kshara* was used with *Katu-Tikta Rasa*, *Laghu-Ruksha-Tikshna Guna* and *Ushna Virya*, which is *Kaphavatahara* in nature. Ayurvedic properties and role of various *Ksharasutras* in Fistula is presented in **Table 1**.<sup>[7-9]</sup>

### Benefits of Kshar-sutra Treatment for Fistula

- ✚ The *Ksharasutra* technique is less invasive.
- ✚ Translating fewer risks and faster healing.
- ✚ The thread's alkaline and medicinal coating work to eliminate microorganisms that cause infection, and thus, could lower the chances of recurrence.
- ✚ This outpatient procedure removes the need for extended hospitalization.
- ✚ *Ksharasutra* therapy uses herbal ingredients as medicine; it can assist in safe and natural healing without adverse effects.

**Table 1: Ayurvedic Properties and Role of Various Ksharasutras in Fistula.**

Type of Ksharasutra	Ayurvedic Properties and Role in Fistula
<i>Apamarga Ksharasutra</i>	<ul style="list-style-type: none"> <li>✓ <i>Tikshna-Ushna</i> properties cause chemical cauterization and cutting of the tract.</li> <li>✓ <i>Ruksha</i> and <i>Lekhana</i> properties remove slough and fibrotic tissue.</li> <li>✓ <i>Snuhi Kshira</i> acts as binding agent and enhances penetration.</li> </ul>
<i>Guggulu Ksharasutra</i>	<ul style="list-style-type: none"> <li>✓ <i>Shothahara</i> and <i>Lekhana</i> properties reduce inflammation and fibrosis.</li> </ul>
<i>Aragvadha Ksharasutra</i>	<ul style="list-style-type: none"> <li>✓ Promotes <i>Mridu Chedana</i> and faster epithelialization.</li> <li>✓ Suitable for patients with pain or tenderness intolerance to strong <i>Ksharas</i>.</li> </ul>
<i>Palasha Ksharasutra</i>	<ul style="list-style-type: none"> <li>✓ Possesses strong <i>Krimighna</i> and <i>Lekhana</i> properties.</li> <li>✓ Useful in infected and pus-discharging tracts.</li> <li>✓ Acts as a potent chemical cauterizing agent with excellent <i>Shodhana</i> effect.</li> </ul>

## CONCLUSION

The *Ksharasutra* treatment has always been powerful for the treatment of Fistula because of the low recurrence rates, efficacy, and excellent patient tolerance. In contrast to modern surgical interventions that may carry higher recurrence rates, damage to the sphincter, and fecal incontinence, *Ksharasutra* does not have these complications and therefore is preferable to other modern treatment options. *Ksharasutra* acts through its natural *Kshariya Guna* and specific herbal ingredients utilized to produce *Chedana* and *Bhedana* actions, which gradually and effectively allow for the tract to delaminate before natural healing progress occurs. *Kshara* has properties of *Katu-Tikta Rasa*, *Laghu*, *Ruksha*, *Tikshna Guna* and *Ushna Virya*. *Kshara* also has *Kaphavatahara* properties, which enhances the effect of *Ksharasutra* for cutting, debriding and enhancing the healing process of the fistulous tract.

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