

THERAPEUTIC APPLICATIONS OF KSHARA AND KSHARAKARMA IN ANO-RECTAL DISORDERS: A CONCEPTUAL REVIEW

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ABSTRACT

Background Ano-rectal disorders such as hemorrhoids, fistula-in-ano, fissure-in-ano and chronic perianal sinus are common surgical problems that may cause pain, bleeding, discharge and recurrent disability. Ayurveda describes corresponding conditions such as *Arsha*, *Bhagandara*, *Parikartika* and *Nadi Vrana*. Among the para-surgical measures of *Shalya Tantra*, *Kshara*, *Ksharakarma* and *Ksharasutra* are important because they combine controlled chemical cauterization, debridement, drainage and tissue healing.

Aim: To review the therapeutic applications of *Kshara* and *Ksharakarma* in common ano-rectal disorders. To review the classical concept, classification and properties of *Kshara*. To describe *Pratisaraniya Kshara* and *Ksharasutra* in ano-rectal practice. To analyze disease-specific applications in *Arsha*, *Bhagandara*, *Parikartika* and chronic perianal sinus. To explain the probable mode of action, advantages, precautions and limitations.

Materials and Methods

Classical Ayurvedic texts, standard *Shalya Tantra* books and selected published clinical literature were reviewed. Information on preparation, properties, indications, procedure and disease-specific applications was collected and analyzed descriptively. No quantitative meta-analysis was performed.

Results and Discussion The therapeutic action can be interpreted as controlled chemical cauterization, tissue debridement, reduction of unhealthy granulation and maintenance of drainage. Proper case selection and standardized technique are essential to avoid injury to healthy tissue.

Conclusion *Kshara* and *Ksharakarma* are valuable para-surgical approaches for selected ano-rectal disorders. Their safe use requires accurate diagnosis, procedural expertise, standardized preparation and regular follow-up.

Keywords: *Kshara*, *Ksharakarma*, *Ksharasutra*, *Arsha*, *Bhagandara*, Ano-rectal disorders

INTRODUCTION

Ano-rectal disorders affect the anal canal, rectum and surrounding perianal tissues and commonly present with bleeding, pain, prolapse, discharge, itching and difficulty during defecation. Ayurveda describes *Arsha* and *Bhagandara* as important diseases because of chronicity, recurrence and potential complications. Classical *Shalya Tantra* texts describe medical, para-surgical and operative approaches, including *Bheshaja*, *Kshara*, *Agni* and *Shastra Karma*.^[1]

Acharya Sushruta gave a detailed description of *Kshara* as an alkaline para-surgical substance capable of actions similar to several surgical instruments. It is broadly classified as *Paneeeya Kshara* for internal use and *Pratisaraniya Kshara* for local application. Local *Kshara* acts on abnormal tissue through controlled cauterization, necrosis and sloughing followed by healing.^[2]

The principle was later developed into *Ksharasutra*, a medicated thread coated with alkaline and herbal substances and used particularly for fistula-in-ano. The technique maintains drainage while producing gradual cutting and debridement of the tract. Clinical literature has reported satisfactory healing and low recurrence in appropriately selected cases, although the total treatment period may be longer than conventional fistulotomy.^[3]

AIM AND OBJECTIVES

Aim: To review the therapeutic applications of *Kshara* and *Ksharakarma* in common ano-rectal disorders.

1. To review the classical concept, classification and properties of *Kshara*.
2. To describe *Pratisaraniya Kshara* and *Ksharasutra* in ano-rectal practice.
3. To analyze disease-specific applications in *Arsha*, *Bhagandara*, *Parikartika* and chronic perianal sinus.
4. To explain the probable mode of action, advantages, precautions and limitations.

MATERIALS AND METHODS

This conceptual review was prepared from *Sushruta Samhita*, *Charaka Samhita*, *Ashtanga Hridaya*, standard books of Ayurvedic surgery and selected published clinical studies related to *Kshara*, *Ksharakarma*, *Ksharasutra*

and ano-rectal disorders. The material was organized under concept, preparation, properties, therapeutic action, disease-specific use, probable mechanism, precautions, advantages and limitations. The findings were interpreted descriptively without statistical pooling. [4]

AYURVEDIC REVIEW

Concept and Classification of *Kshara*

Kshara is an alkaline medicinal preparation generally obtained from the ash of selected plants. The word indicates an agent capable of *Ksharana*, i.e., destroying, dissolving or removing unwanted tissue. In local use it may reproduce effects comparable with excision, incision, scraping and cauterization. According to route, it is classified into *Paneeya Kshara* and *Pratisaraniya Kshara*; the latter is most relevant to ano-rectal surgery. According to strength, it may be *Mridu*, *Madhyama* or *Tikshna*, selected according to tissue, site, disease and patient strength. [5]

Properties and Therapeutic Actions

Classical actions attributed to *Kshara* include *Chedana* (removal), *Bhedana* (opening), *Lekhana* (scraping), *Patana* (shedding of diseased tissue), *Shodhana* (cleansing) and *Ropana* (healing). These actions explain its utility in localized abnormal masses, chronic tracts and wounds containing unhealthy tissue. A controlled application removes diseased tissue, while excessive exposure may damage healthy structures. [6]

Preparation of *Kshara*

The usual method begins with drying and burning the selected plant material to obtain ash. The ash is mixed with water, stirred, filtered repeatedly and the clear alkaline filtrate is heated to obtain concentrated *Kshara*. *Apamarga Kshara* prepared from *Achyranthes aspera* is frequently used in ano-rectal practice. Concentration, pH, quantity and duration of contact determine the depth of tissue action, therefore standardization is essential. [7]

Pratisaraniya Kshara

Pratisaraniya Kshara is applied directly to localized pathological tissue while surrounding healthy skin or mucosa is protected. After a controlled contact period, the material is removed or neutralized and local wound care is continued. The expected response is discoloration and cauterization of the target tissue, followed by necrosis, sloughing, healthy granulation and epithelialization.

Ksharasutra

Ksharasutra is a medicated surgical thread prepared by repeated coatings of materials such as *Snuhi Ksheera*, *Apamarga Kshara* and *Haridra*. When placed through a fistulous tract, it provides continuous drainage and progressive chemical and mechanical action. Gradual tissue division takes place while healing proceeds behind the advancing thread. Comparative clinical observations have reported less interruption of routine work, although complete healing may require a longer treatment period. [8]

THERAPEUTIC APPLICATIONS

1. *Arsha* – Hemorrhoids

Arsha may present with bleeding, prolapse, discomfort, itching and difficulty in defecation. Ayurvedic management includes *Bheshaja Chikitsa*, *Ksharakarma*, *Agnikarma* and operative treatment according to the type and stage. *Pratisaraniya Kshara* can be used in selected internal hemorrhoidal masses. Controlled application causes chemical cauterization, reduction of vascularity, necrosis and sloughing, followed by fibrosis and fixation of the mucosa. Proper protection of surrounding mucosa is essential. [9]

Kshara application

- ↓ Controlled cauterization
- ↓ Necrosis and sloughing
- ↓ Fibrosis and mucosal fixation
- ↓ Reduction in bleeding/prolapse
- ↓ Healing

2. *Bhagandara* – Fistula-in-Ano

Bhagandara corresponds clinically to fistula-in-ano, a chronic tract that may show recurrent discharge, abscess formation and complex branching. *Ksharasutra* is introduced through the tract and replaced at regular intervals according to the adopted protocol. Its alkaline coating debrides the tract while the thread maintains drainage and prevents premature external closure. A multicentric randomized clinical trial reported complete healing with both *Ksharasutra* and surgery, with lower recurrence in the *Ksharasutra* group during follow-up but a longer median healing period. [10]

Ksharasutra insertion

- ↓ Continuous drainage
- ↓ Chemical debridement
- ↓ Gradual controlled cutting
- ↓ Healing behind the thread
- ↓ Progressive shortening of tract
- ↓ Closure

3. *Parikartika* – Fissure-in-Ano

Parikartika is characterized by cutting pain in the anal region and shows similarities with fissure-in-ano. Acute fissure is usually managed conservatively, but carefully selected chronic cases with fibrotic or unhealthy tissue

may require para-surgical intervention. Controlled *Kshara* application can remove unhealthy surface tissue and promote a healthier wound bed. Treatment must also correct constipation and reduce repeated local trauma. ^[11]

4. Perianal Sinus and Chronic Nadi Vrana

Selected chronic sinuses may contain unhealthy granulation, retained discharge and poorly drained tissue planes. The principle of *Ksharasutra* may be used to maintain drainage and gradually eliminate diseased tissue. Continuous patency of the tract prevents superficial closure while deeper pathology persists. Clinical reports have described its use in selected fistula, sinus and related ano-rectal conditions. ^[12]

PROBABLE MODE OF ACTION

The effect of *Kshara* and *Ksharakarma* can be understood through several complementary mechanisms. Its strong alkalinity produces controlled chemical cauterization and protein denaturation. *Lekhana* and *Shodhana* remove unhealthy granulation and devitalized tissue. In *Ksharasutra*, the thread maintains drainage, applies mechanical pressure and delivers the active coating directly to the tract. The alkaline environment and ingredients such as *Haridra* may also contribute to local antimicrobial and anti-inflammatory effects. ^[13]

SAMPRAPTI – FLOW CHART

General Ano-Rectal Samprapti

Improper diet and lifestyle
↓ *Agni Mandya* and *Dosha Prakopa*
↓ *Apana Vata Vaigunya*
↓ Constipation and repeated straining
↓ Local involvement of *Mamsa*, *Rakta* and *Sira* in *Guda Pradesha*
↓ Congestion/inflammation/tissue injury
↓ *Arsha* / *Parikartika* / *Bhagandara* / *Nadi Vrana*

Samprapti of Bhagandara

Nidana Sevana
↓ *Dosha Prakopa*
↓ *Pidaka* in *Guda Pradesha*
↓ Suppuration and rupture
↓ Persistent infected tract
↓ Chronic discharge
↓ *Bhagandara*

PRECAUTIONS, ADVANTAGES AND LIMITATIONS

Precautions

Accurate diagnosis and anatomical assessment are essential before treatment. Healthy skin and mucosa must be protected during *Pratisaraniya Kshara* application, and contact time must be controlled. High and complex fistulas require careful assessment of sphincter involvement. Excessive cauterization may cause deep ulceration, pain, delayed healing, fibrosis or stricture; therefore the procedure should be performed by trained practitioners.

Advantages

- Localized action on pathological tissue with limited mechanical trauma.
- Combines debridement, drainage, gradual cutting and healing.
- Useful in selected hemorrhoids, fistulas and chronic sinus tracts.
- Can often be performed with limited interruption of routine activities.
- Provides a tissue-preserving option in appropriately selected cases.

Limitations

- Requires procedural expertise and repeated follow-up.
- Burning, pain and local tissue injury may occur if application is excessive.
- *Ksharasutra* healing may take longer than conventional fistulotomy.
- Complex fistulas and suspicious lesions need complete modern diagnostic evaluation.
- Preparation and application methods require standardization.

RESULT AND FINDINGS

1. *Kshara* is an important para-surgical modality of *Shalya Tantra*.
2. Its major actions are *Chedana*, *Bhedana*, *Lekhana*, *Shodhana* and *Ropana*.
3. *Pratisaraniya Kshara* is particularly applicable to selected internal hemorrhoids.
4. *Ksharasutra* has its strongest established application in fistula-in-ano.
5. The medicated thread provides drainage, chemical debridement and gradual mechanical cutting.
6. Concurrent healing behind the advancing thread is a characteristic advantage.
7. Selected chronic fissures and sinuses may benefit after careful assessment.
8. Successful outcomes depend on diagnosis, standardization, technique and follow-up.

DISCUSSION

The classical description of *Kshara* demonstrates a sophisticated para-surgical approach in which a medicinal substance performs functions comparable with excision, incision, scraping, cauterization and debridement. The actions of *Chedana*, *Bhedana*, *Lekhana* and *Shodhana* can be correlated with controlled chemical destruction and removal of diseased tissue. In hemorrhoids, this results in cauterization, sloughing and fibrosis, while in chronic wounds it supports wound-bed preparation and healthy granulation. [14]

Among ano-rectal indications, *Ksharasutra* in fistula-in-ano has received the greatest clinical attention. Its benefit arises from simultaneous drainage, mechanical pressure and local chemical action rather than from a single mechanism. Gradual cutting allows healing to progress behind the thread, potentially limiting the size of the open wound. Clinical reports support its usefulness in appropriately selected fistula and related conditions, though outcomes vary with tract anatomy, technique and patient compliance. [15]

The technique is not suitable for indiscriminate use in every ano-rectal disorder. High or complex fistulas, suspected malignancy, inflammatory bowel disease-related fistulas and recurrent disease require detailed investigation and individualized management. Future studies should standardize plant material, alkalinity, coating technique, application duration, outcome measures, recurrence assessment and continence evaluation. Integration of classical principles with modern imaging, asepsis and long-term outcome assessment can strengthen its evidence base. [16]

CONCLUSION

Kshara and *Ksharakarma* are distinctive Ayurvedic para-surgical modalities with meaningful applications in selected ano-rectal disorders. *Pratisaraniya Kshara* is useful for selected hemorrhoidal tissue, while *Ksharasutra* is especially important in fistula-in-ano because it combines drainage, chemical debridement, gradual cutting and simultaneous healing. Appropriate case selection, standardized preparation, accurate anatomical assessment, trained application and regular follow-up are essential for safe and reproducible outcomes.

CONFLICT OF INTEREST: Nil

SOURCE OF SUPPORT: None

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