



## IMPORTANCE OF KSHARSUTRA IN AYURVEDA

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### ABSTRACT

Ayurveda treatment is an ancient procedure. Most of the people are not satisfied with the effects of allopathy as the side effects and reactions are now easily visible. The benefits of Ayurveda on the other side are very effective. Side effects and cases of recurrence of disease after Ayurvedic therapy are there but a lot of people opt for it. It is a safe, secure, reliable and cost-effective branch of traditional medical science. Ksharsutra can be defined as an Ayurvedic medicated thread coated with herbal alkaline drugs. Ksharsutra therapy has been described as a treatment of choice for the treatment of fistula-in-ano due to low recurrence rate. However, Ksharsutra procedure is not yet globally accepted basically due to lack of standardization and poor acceptability by modern surgeons due to lack of training and fear of complications. Ksharsutra is distinguished as a medicated seton. Mechanical action of the threads or Seton and the chemical action of drugs coated on the thread together do the work of cutting, curetting, draining, and cleaning thus promoting healing of the wound.

**KEYWORDS:** Kshar Sutra, Procedure, Ayurveda, Anorectal Diseases.

### INTRODUCTION

Ayurveda, the ancient medicine has remedy for almost all kinds of diseases and disorders. Following Ayurvedic medicine not just helps to relieve from health ailments but also enables us to maintain good health with no traces of diseases. Even in the modern world, the 5000 years old Ayurvedic medicine remains a king of medicines, as it addresses many diseases that are unable to cure by modern medicines and treatments. Combination of nature and ancient medical expertise, Ayurveda helps people to manage their degenerative disorders effortlessly. Surgical procedures are now a common part of modern medications. The ancient medicine also had surgical procedures to treat a few diseases. Surgery has its existence in Ayurveda before 5000 years and it is not a new technique at all. The relatively old method of treatment has been developed with technology and advancements in the medical field. It was highlighted by the Sushruta, the Father of Surgery, where this ancient sage mentioned the treatment of hemorrhoids, pilonidal sinus (PNS) and fistula-in-ano with surgery. Kshara Sutra Therapy (or Kshar Sutra Treatment) is a unique ancient technique, which is proved to be an effective treatment of anorectal disorders. Kshara Sutra ligation Treatment is less invasive than modern anorectal surgeries and has better results in the proper treatment of pilonidal sinus and fistula. It is also a safer option, which is also very cost effective for patients. The procedure can be categorized

under parasurgical treatments. Nowadays, it is widely accepted and recognized procedure for fistula treatment in India.

Ksharsutra is a successful novel drug delivery system, emerging as a specialized modality of treatment in the field of surgery in Ayurved. Ksharsutra is distinguished as a medicated seton. Mechanical action of the thread or Seton and the chemical action of drugs coated on the thread together do the work of cutting, curetting, draining, and cleaning thus promoting healing of the wound. Ksharsutra even though not described vividly by Bruhatrayi but it has been described and practiced in Ayurved for Anorectal disorders and also for those conditions which demands gradual excision. Acharya Sushruta, Father of Surgery stated about Ksharsutra for the first time in his text named 'Sushrut Samhita' with its clear cut indication in Nadi Vrana, Bhagandar and Arbuda. Although Bhrihatrayi the chief three texts of Ayurveda mention the use of Ksharsutra but there is no description of their preparation properly. It was Chakrapani Datta in late eleventh century in his book Chakradatta, first mentioned the method of preparation with a clear cut indication of its use in Bhagandar and Arsha.

**Kshara sutra**

Surgical procedure in Ayurveda is called, Kshara Sutra. It is described by the Ayurvedic experts of ancient ages like Sushruta and Vagbhatta. The term Kshara Sutra refers to medicated thread made with the blend of a special soft linen thread and Ayurvedic herbs and drugs. Preparation of this thread isn't an easy job and it will take a few weeks to prepare it to perfection. Kshara Sutra, the Ayurvedic surgery was used mainly to treat anal fistula and sinusitis. Also, this surgical procedure was provided to treat other anorectal diseases. Although it is referred as surgical procedure, it is a minimalistic and non-invasive procedure, but done with extreme care.

The surgical procedure involves threading of the special medicated line in the fistulous track, ligation of and piles. So, the surgery is generally performed providing a local anesthesia to the patients. Even in the olden days, patients are provided anesthesia. The medicated thread with drugs treats the diseases and heals the body. Kshara Sutra is a medicated linen thread prepared with a coating of Snuhi Ksheera, Apamarga Kshara and Haldi Churna. These herbal ingredients are:

1. **Snuhi Ksheera** – Fresh Stem Latex of Euphorbia Neriifolia (Sehund or Thuhar) Plant
2. **Apamarga Kshara** – Achyranthes Aspera
3. **Haldi Churna** (Turmeric Powder) – Curcuma Longa

Kshara Sutra has 11 coatings of Snuhi Ksheera, 7 coatings of Snuhi Ksheera and Apamarga Kshara and 3 coatings of Snuhi Ksheera and Haldi Churna.

|                                 |             |
|---------------------------------|-------------|
| Alone Snuhi Ksheera             | 11 Coatings |
| Snuhi Ksheera + Apamarga Kshara | 7 Coatings  |
| Snuhi Ksheera + Turmeric Powder | 3 Coatings  |

**Kshara sutra preparation method**

- Take surgical linen thread of size 20.
- Spread it on the hangers of special Kshara Sutra cabinet fitted with an ultraviolet lamp.
- Now, smear Snuhi latex using clean and sterilized gauze piece soaked in Snuhi Ksheera on linen thread uniformly.
- Place hangers with smeared linen thread in Kshara Sutra cabinet for drying and close the door of the cabinet to prevent contamination. Leave it for drying.
- When linen thread is completed dry and again smear the thread with Snuhi Ksheera. Repeat this process 11 times on same thread.
- After 11 coating with Snuhi Ksheera, from the 12 coating, smear the same thread with Snuhi latex then pass the wet thread through the finely powdered Apamarga Kshara heap and ensure Apamarga Kshara is attached to the thread uniformly. If

Apamarga Kshara adheres to the thread in excess, then shake the thread hanger gently allowing falling down the excess particles of Apamarga Kshara. Now, Place hangers with smeared thread in Kshara Sutra cabinet for drying and close the door of the cabinet to prevent contamination. Repeat this process for total 7 times.

- After 7 coating with Apamarga Kshara (after 18 total coating), now start coating with Haldi Churna. Take same thread for 19<sup>th</sup> coating with Snuhi latex and now pass the wet thread through the finely powdered Haldi (Turmeric) Churna heap and ensure Haldi adheres to the thread uniformly. If the excess adheres, then shake the thread hanger gently allowing falling down the excess particles. Leave it for drying in the cabinet. When a thread is completely dry, then repeat this step 2 times more to complete 3 coating with Haldi. Now, total 21 coatings are done on thread and thread is called Kshar Sutra and ready for use.
- After completion of above steps, dry Kshara Sutra should be cut in the uniform length of 30 to 32 cm and packed in sterilized packaging.

**Method of ksharasutra application**

- Patient subjected for suitable anesthesia.
- Lithotomy position was given to patient.
- For lubrication and local anesthesia 2% xylocaine jelly was applied and probing was done for identification of fistulous track.
- Ksharsutra was tied to one end of probe and probe was removed from internal opening so that by railroad technique the Ksharsutra was placed in the fistula track, whose two ends were then tied together.
- Concomitant medication was given for pain management.
- After every 5 days interval Ksharsutra insertion was done.

**Characteristics of kshara sutra**

- A well prepared Kshara Sutra is uniformly smeared with medicinal coating and smooth to touch. The color of thread is likely to be dark brown.

**Indications of kshara sutra treatment**

- Fistula-in-Ano
- Pilonidal Sinus (PNS) or Pilonidal Cyst – a small abscess or cyst that develops in the cleft at the top of the buttocks.
- Sentinel piles – external lump developed around the rectum due to anal fissures.
- Hemorrhoids
- Anorectal Polyps
- Warts

**Kshara sutra treatment of fistula-in-ano**

Kshara Sutra is passed through the fistulous tract using the minor surgical technique, which gradually cuts and heals the track of Fistula-in-Ano. It naturally cures the track and remove the unhealthy tissue. It promotes drainage of discharge or pus from the tract, which helps to clear the infection. Ultimately, it cures the Fistula-in-Ano. It may take 3 to 4 weeks for proper healing. Kshara Sutra is replaced with new one after every week.

**Kshara sutra treatment of pilonidal sinus**

Kshara Sutra is passed through the opening of the sinus to the skin. It gradually cuts and heals the pilonidal sinus by removing unhealthy tissue and promoting quick healing because of caustic action. Like Fistula-in-Ano, it may also take 3 to 4 weeks for proper healing. Kshara Sutra is replaced with new one after every week.

**Kshara sutra treatment of hemorrhoids**

The base of Pile mass is ligated with Kshara Sutra using a minor surgical technique. Yashtimadhu oil dipped pack is placed inside the rectum to reduce or soothe the irritation occurring due to Kshara Sutra. Caustic thread strangulates the blood vessel, which leads to ischemic necrosis of ligated pile mass. It ultimately sloughs the dead tissue within 6 to 7 days and heals the wound within 10 to 15 days.

**Kshara sutra treatment of warts**

Warts are ligated with Kshara Sutra, which stops the blood supply to the wart tissue and causes ischemic necrosis. Ultimately sloughs dead tissue of warts sloughs within 6 to 7 days.

**Benefits of kshara sutra procedure**

Kshara Sutra Technique is very beneficial curing diseases listed under indication section above. This technique is safer than other surgical procedures and all patients can get treatment with this technique because it is curative and very cost effective. It also prevents recurrence. A minimum recurrence is observed with Kshara Sutra in comparison to other surgical procedures. There are surgical complications of Kshara Sutra therapy.

Other surgical procedure can cause stricture, stenosis, delayed healing, edematous tags, and incontinence. These complications are not occurring with Kshara Sutra treatment.

**Contraindications of kshara sutra**

- If lesions are away from the anorectal canal, Kshara Sutra should not be used. Here is a list of its contraindications.
- Appendicitis
- Inflammatory bowel disease (IBD) – Ulcerative colitis & Crohn's disease
- Intestinal malignancies
- Tuberculous abscess of the abdominal wall
- Osteomyelitis of femur

- Osteomyelitis of pelvic bones
- Pelvic malignancies
- Regional ileitis
- Spinal Tuberculosis
- Tuberculosis of hip joint
- Urethral sinuses
- Urethral stricture
- Venereal diseases

**Pre- procedure requirements**

- The patient has to sign some documents and formalities before operation giving consent.
- A night before the procedure, the pubic area is cleaned and shaved. Some ayurvedic solution is applied to rest all night. It is an antiseptic solution.
- The patient is kept orally nil before 6 hours of surgery.
- A light diet is provided the night before surgery.
- To ensure that the patient has clean bowels, the medical staff will provide him/her with soap enema on the night before the procedure and also 2 hours before the procedure.
- Patients are given injections of tetanus toxoid which will be 0.5 ml.
- Several sensitivity tests are conducted like xylocaine test.

**On the day of procedure**

- The patient will be anesthetized with local, general or spinal anesthesia before surgery.
- For piles, fistula and all kinds of anorectal problems, the Kshara Sutra is prepared in an alike manner. It is coated with several coatings of ayurvedic meds such as Snuhi latex with various combinations, Apamarga Kshara, Haridra Churna with required pH.
- The patient is then positioned in lithotomy on the operation table.

**Post procedure instructions for patients**

After Kshara Sutra treatment of anorectal disorders, the patient should follow the instructions given underneath:

- Don't take spicy and fried foods.
- Take normal diet, which is light and easily digestible.
- Take foods rich in fiber content. Taking fresh fruits and vegetables is a good choice.
- Drink plenty of water.
- Stay active most of the time of the day.
- Avoid sitting, standing, traveling and driving for a longer period.
- Avoid low fiber foods.
- Avoid constipation. If constipation occurs, take Isabgol Sat (Psyllium husk), Swadishta Virechan Churna or other mild laxatives and consult your doctor immediately.
- Keep good hygiene of anorectal area and clean it properly.

**CONCLUSION**

Kshar Sutra procedure is simple, easy, safe, feasible and cost effective in the management of Anorectal disorders. But the duration required for Ksharsutra therapy is quite longer whereas the healing of wound is faster in open method of Fistulectomy. Combination of both these techniques i.e. Shodhana of the fistulous track is done by conventional Ksharsutra therapy followed by Complete Fistulectomy will curtail the prolong duration of treatment and also overcome the recurrence after operative procedure. No loss of man-days as patient can resume to work-life or daily routine life with simple precautions. Simple post-surgery instructions are to be followed by patients themselves. Therefore, no hassle or requiring help from others.

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