



KSHARA SUTRAS TYPES, THEIR METHOD OF PREPARATION AND CLINICAL ROLE: A REVIEW

Dr. Manisha Sanjay Bang^{*1} and Dr. Rajendra Mahadeorao Meshram²

¹Professor & HOD, (Dept. Shalya Tantra), Eva College of Ayurveda, Supedi - 360440, Dist. Rajkot, Gujarat, India.

²Professor & HOD, (Dept. Shalya Tantra), Rajeev Gandhi Ayurved College, E-8, Trilanga, Bhopal 462039, Dist. Bhopal (MP) India.

***Corresponding Author: Dr. Manisha Sanjay Bang**

Professor & HOD, (Dept. Shalya Tantra), Eva College of Ayurveda, Supedi - 360440, Dist. Rajkot, Gujarat, India.

Article Received on 11/07/2022

Article Revised on 01/08/2022

Article Accepted on 21/08/2022

ABSTRACT

Kshara Sutra therapy is a unique approach of Shalya Tantra which offers advantage of minimal invasion. The Kshara Sutra therapy mainly employed for the management of anorectal disorders, cuts, wounds and other diseases which needs surgical attentions. Kshara Sutra therapy is considered safe, cost effective and easy technique when used for surgical and para-surgical purposes. Fistula-in-ano, sentinel piles, haemorrhoids, pilonidal sinus, anal polyps and warts, etc. are common disorders where Kshara Sutra therapy implemented. There are various types of Sutra including Udumbara Ksharasutra, Papaya Sutra, Guggulu kshara, Yavakshara sutra and Ghritakumari ksharasutra. The Kshara Sutra mainly prepared from Snuhi latex, Apamarga and Haridra Churna, etc. Kshara Sutra offers Tridoshaghna, Dahana, Pachana, Darana, Shodhana, Ropana, Lekhanai and Krimighna, etc. properties thus provides therapeutic benefits in different pathological conditions. Present article reviewed method of preparation and clinical role of different types of Kshara Sutra.

KEYWORDS: Ayurveda, Kshara Sutra, Shalya Tantra, Snuhi, Apamarga, Haridra.

INTRODUCTION

Kshara sutra is popular technique of Ayurveda *Shalya Tantra*, which utilizes for therapeutic benefits in many disorders. This approach improves natural process of healing, therefore also used as post-operative measure. *Kshara Sutra* helps is cutting, draining and healing of

fistulous track. It removes unhealthy tissue, controls infection; facilitate separation of debris, cleans wound, drain the pus, causes chemical cauterization and mechanical strangulation, etc. thus boost up process of tissue repairing. The various advantages of *Kshara sutra* technique are depicted in **Figure 1**.

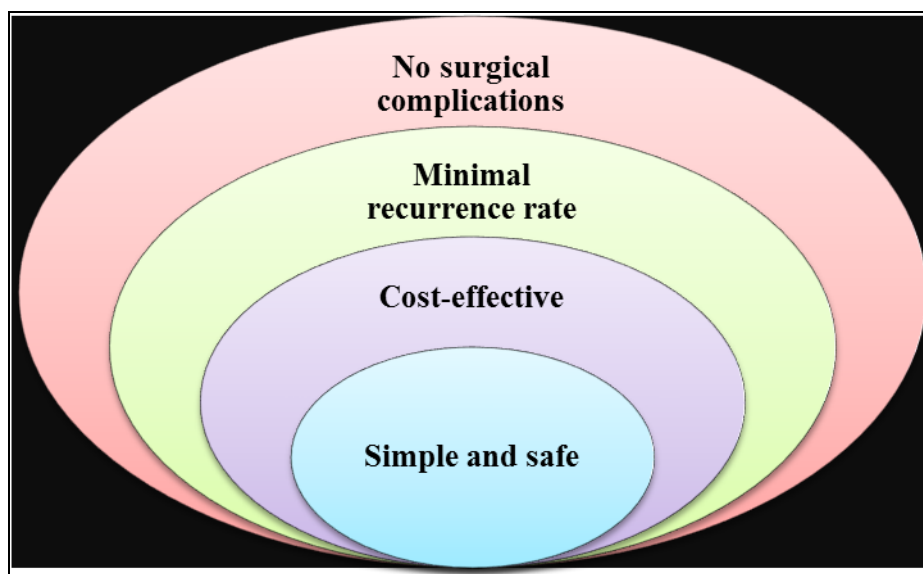


Figure 1: Various advantages of *Kshara sutra* technique.

Different types of Ksharasutra

1. Udumbara Ksharasutra

The latex of ficus glomerulata is used which possess *Sheeta veerya* thus relieves symptoms of *Dushta vrana*. It is less irritant, not produces much pain, impart good wound healing property, good tolerance by the patients and easy to prepare.

2. Papaya Sutra

Papaya fruit pulp, papain powder used as cleansing and healing agent along with *Haridra* powder. Its preparation involves total 13 coatings, out of which 11 coatings of papaya fruit pulp and papain powder while 2 coatings of papaya fruit pulp with *Haridra* powder. *Papaya Sutra* offers advantages of fast debridement of necrosed tissue and early wound healing.

3. Guggulu kshara sutra

Guggulu solution was used instead of *Snuhi* latex. *Guggulu kshara sutra* offers analgesic effect, facilitate debridement of tissue, improves healing properties, gives anti-inflammatory action, scar is acceptable cosmetically and no complication after therapy.

4. Yavakshara sutra

Yavakshara sutra offers scrapping, anti-inflammatory and analgesic properties, etc. Pain and agony reduced during the application of *Yavakshara sutra*.

5. Ghritakumari ksharasutra

Ghritakumari pulp is used instead of *Snuhi* latex; it offers local anaesthetic property, possesses binding action, acts as preservative, and improves wound healing, no allergic reactions and good tolerance.

General Properties of Kshara

Kshara is superior amongst other surgical and para surgical measures. Functionally *Kshara* involves in process of incision, puncturing and scarification to remove debris and relieves derangements of *Tridosha*. *Kshara* possess *Tridoshaghna*, *Dahana*, *Pachana*, *Darana*, *Shodhana*, *Ropana*, *Lekhanai* and *Krimighna*, etc. properties. *Tridoshaghna* affects helps to pacify vitiated *Doshas*. *Dahana* effects destroy and removes toxins, *Pachana* action of *Kshara* digest and eliminate toxins, *Vilayana* effects gives liquefaction property, *Shodhana* effect of *Kshara* helps to clean damage tissue, *Ropana* property improves granulation, *Stambhana* effect arrest bleeding, *Lekhana* effects imparts scraping property while *Krimighna* property of *Kshara* restrict microbial infections. *Kshara* pacifies *Kapha*, *Visha*, *Aama* and *Medo dhatu* by virtue of its *Ushna*, *Tikshna*, *Laghu* & *Bhedana* effects.

Kshara preparation

The process of *Kshara* preparation requires consideration of time (*Kaala*) and place. The best *Kala* is *Sharad kala*, the place preferred nearby hilly area. The ash is collected after the separation of burnt lime-stones. This represents

basic *Kshara* (*Praathamika kshara*); the materials and equipments required are as follow:

❖ **Thread:** It should possess sufficient strength to hold many coatings of ingredients. Surgical linen no.20 retains maximum strength and offers good tensile strength, therefore, non-absorbable, thread no. 20 mainly used for *Kshara sutra* preparation.

❖ **Kshara (Alkali):** Caustic agent should be fine, dry, hygroscopic & alkaline in nature. *Mridu* variety of *Pratisarniya kshara* considered good for *Kshara sutra* preparation and *Apamarga kshara* also utilizes as an effective option.

❖ **Ksheera (Latex):** *Ksheera* used for its adhesive property and also gives debridement action by its proteolytic enzymes. Latex of *Snuhi*, *Udumbara*, *Papaya*, *Arka* and *Guggulu* etc. can be used for the purpose of binding during the preparation of *Kshara sutra*.

❖ **Haridra (Turmeric):** *Haridra* prevent contact of *Kshara* with atmosphere thus resist effects of moisture and preserve *Kshara* for longer period of time. Additionally *Haridra* offers antiseptic & anti-inflammatory properties thus helps to cure damage tissue.

❖ *Kshara Sutra* cabinet with ultraviolet light

❖ Autoclaved Petridish

❖ Glass tubes

Process involves in Kshara Preparation

1. Preparation of Ash

2. Preparation of Ksharajala

3. Preparation of Kshara

4. Preparation of Kshara Sutra

First ash is prepared by burning plant with *Tila nala*; this ash mixed with water or *Gomutra* and filtered. The filtered ash further boiled followed by flirtation and evaporation to obtain the dry powder. Powder should be stored in air tight container. The *Kshara Sutra* cabinet with ultraviolet light available in two designs; horizontal and vertical. The two chamber of cabinet served different function one chamber used for the *Kshara sutra* hangers and another one used for the hot air blower. Thermometer placed inside the chamber to indicate temperature. *Ksharasutra* hangers made by thick aluminum or wooden materials; with small notches on both sides, these notches are used for hooking the thread. This *Kshara Sutra* cabinet can be used to accommodate 30 to 50 hangers. Cabinet prevents contamination and inhibit contact of atmospheric dust particles with the wet threads. It helps to dry coated thread and provides sterilization with the help of ultraviolet light. Ultraviolet light offers bactericidal action and maintain constant heat to dry threads. The sterilization and packing of *Kshara sutra* done by placing them in cabinet for 20-30 min. at 40°C, sterilized *Ksharasutra* packed in polythene bag after cutting at two ends, sterilized glass tubes can also be used for same purpose. The preparation of *Kshara sutra* is depicted in **Figure 2**.

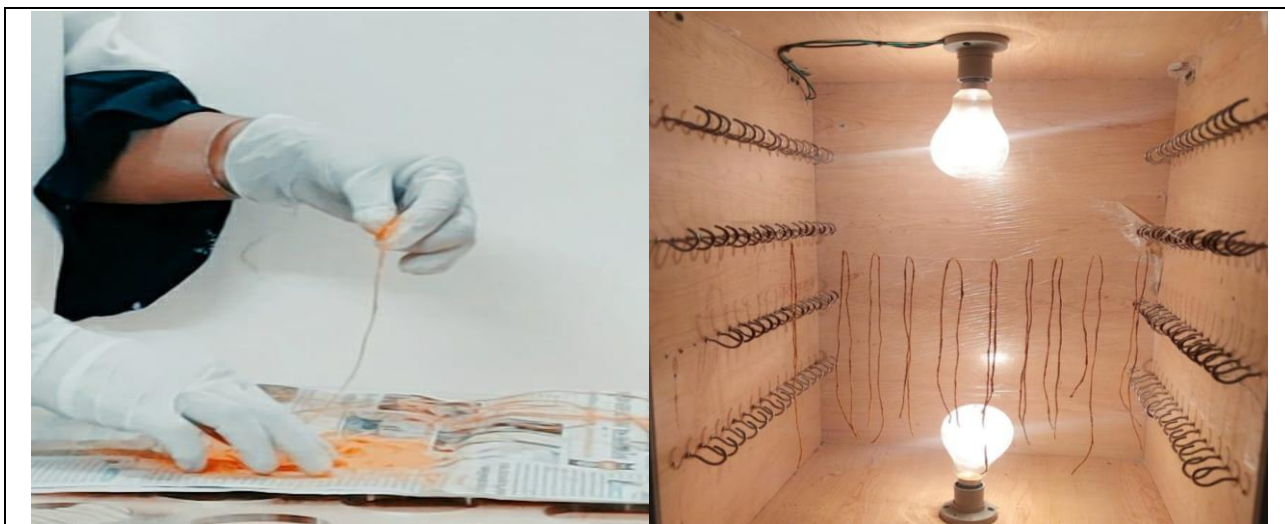


Figure 2: Preparation Kshara sutra.

CONCLUSION

Kshara sutra is a popular and well acceptable technique of Ayurveda *Shalya Tantra* which offers several health benefits in disorders like; fistula in ano, hemorrhoids, chronic fissure with tags, pilonoidal sinus, anal warts, chronic sinuses, anal papilloma and rectal polyps, etc. *Kshara Sutra* therapy offers advantage of minimal invasion, also considered safe, effective and rare chances of recurrence, etc. There are various types of *Sutra* used in *Shalya Tantra* such as; *Papaya Sutra*, *Guggulu kshara*, *Udumbara Ksharasutra*, *Ghratakumari ksharasutra* and *Yavakshara sutra*, etc. *Snuhi latex*, *Apamarga* and *Haridra Churna*, etc. are major ingredients used for *Kshara Sutra* preparation. *Dahana*, *Pachana*, *Tridoshaghna*, *Darana*, *Ropana*, *Lekhanai*, *Krimighna* and *Shodhana*, etc. are main therapeutic properties of *Kshara Sutra*. *Kshara Sutra* causes cutting, draining and healing of fistulous track, also removes unhealthy tissue, facilitate separation of debris, controls infection, cleans wound, causes chemical cauterization, mechanical strangulation and drain the pus, etc. therefore helps to relieves symptoms of many ano-rectal disorders.

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