



Conceptual study of Properties of Kshara, Ksharsutra Preparation and Standardisation

1. Dr Jyotik Omkar Subhash BAMS MS (Shalyatantra)

Assistant Professor at Tilak Ayurved Mahavidyalaya, Pune

2. Dr N.V Borse BAMS, MS, PhD

HOD & Professor at Tilak Ayurved Mahavidyalaya, Pune

Abstract- Shalyatantra has given Ksharsutra treatment which is been proved boon for the society. World has changed very fast in the last decade many treatment modalities have emerged and stopped but still Ayurveda is contributing to modern science with its own originality with authenticity. Shalyatantra has contributed Ksharsutra treatment which is been proved boon for the society. Ksharsutra is a therapeutic modality of Ayurveda since many years. Kshara sutra is one of the para surgical procedures in Ayurveda which has been proven its action by scraping, draining, excision, penetrating and debridement. In present Era due to sedentary lifestyle anorectal disorders like Arsha (haemorrhoids), Parikartika (fissure), Bhagandar (fistulas) and Nadivrana (Pilonidal sinus) are seen increasing in the population. Thus ksharsutra plays a vital role in treatment of these diseases by its properties. Ksharsutra application helps in improving the process of healing and helps in maintaining health benefits with minimal invasion.

Keyword- Ksharsutra, Fistula in Ano, Bhagandara, Properties of Kshara, Ksharsutra Preparation and Standardisation

Introduction

According to reference of Shabdakalpadruma, the word Kshara + sutra derived from the root Kshara means to melt away or to perish and word Sutra means thread.¹ Ksharsutra is a thread which is made up of caustic material and helps in destroying the devitalized tissue and to disintegrate the skin or other tissues.² Ksharsutra is parasurgical procedure with minimal invasion its practice was initiated by Acharya Sushruta who lived between 800 B.C and 1000 B.C. Acharya Sushruta has used ksharsutra in various Ano-rectal disorders like Fistula, Hemorrhoids and Sinuses.³ In the chapter of Shotha chikitsa of chikistasthana Acharya Charaka has described that Ksharasutra in the chapter of Shotha chikitsa adhyaya that Kshara sutra should be used with other measures in the treatment of Bhagandara.⁴ in Ashtanga samgraha and Ashtanga hridaya Ksharsutra has been mentioned along with Shastra karma, Agni karma. In Ashtang Hruday Ksharsutra was specifically indicated for Parikshepi type (Horse shoe shape Fistula) of Bhagandara. Acharya

Charaka, Bhavamisra, Vangasena have mentioned use of ksharsutra in various diseases. Procedure mentioned in Rasa kamdhenu states thread should be coated with Arka and Snuhi kshira and dried for three times, followed by smearing of Kshara.⁵ In Arshodikara Chakradatta mentioned about preparation of ksharsutra.⁶ Many such researches have been undergone in preparation of ksharsutra since years passed on. Kshara sutra therapy of Fistula-in-ano is accepted worldwide and has also mentioned in the text books of Colorectal surgery also, owing to its complication-free curative results.

AIM- 1. To study properties of kshar, preparation and standardization of Ksharsutra.

2. To explore the authenticity of ksharsutra to world

MATERIALS AND METHODS

Information in this article is collected from Ayurvedic Samhita, texts and journals.

Properties of kshara:

As Kshara acts as incision, puncture, and scarification to relieve derangements of the Tridosha⁷ and uniformly affect the diseased it is considered superior to all surgical and Para surgical measures.

Acharya Sushruta has described following properties of kshara-

Tridoshaghna – because of different types of drugs it can pacify all the three dosha

Saumyata – as it has white color,

Dahana – it is burning sensation in nature,

Pachana- it has digestive capability,

Darana- since many drugs of agneya nature enters into their composition,

Katuka – as it has pungent taste,

Ushna – it is heat producing nature,

Tikshna – because of its irritant nature,

Vilayana – because of its liquefaction property,

Shodhana – because of its cleansing property,

Ropana – improves granulation (healing),

Shoshana – absorption,

Stambhana – arresting or stopping nature,

Lekhana – scraping property,

Krimighna – because of its antimicrobial action,

Sterility⁸ – if used in excess, It normalizes Aama, Kapha, visha, medo dhatu and also cures kushtha when given in proper doses.

Acharya Charak added two more properties – Laghu & Bhedana.⁹

According to Vagbattachrya kshara acts by extracting all the toxins from the disease site and cures the disease without reoccurrence.¹⁰

Reference of Kshara preparation as per Sushruta Samhita¹¹:

During period of Sharad Kaala(October-November) preparation of ksharsutra should be done. It should be done at hilly area located area. Devotional programme (mangalacharana) should be performed at the beginning. A healthy mushkaka plant and its root are taken; it is cut into small pieces and boiled till it is completely converted into ash. Acharya Sushruta first mentioned Ksharasutra in the treatment of Nadi Vrana (sinus), Bhagandara (fistula in ano), arbuda (Tumor) etc.but has not explained its preparation.

Ksharsutra preparation according to Chakradutta¹²-

Acharua Chakradutta gave the first reference of preparation of ksharsutra in Chakradatta samhita. Acharya Chakradutta in treatment of Arsha (haemorrhoids) and Bhagnadara (fistula in ano) in the fifth Chapter of Arshachikitsa has explained about ksharsutra.

According to Acharya Chakradutta a thread should be taken that should be coated multiple times with Snuhiksheera (the latex of Euphorbia nerifolia) and Rajani churna (Curcuma longa).

Ksharsutra preparation according to Acharya Vangasen¹³-

Acharya Vangsen In the chapter of Arsha chikitsa has mentioned the use of Ksharsutra in the management of Arsha. Snuhiksheera, Malkangani, Triphala churna, Ballataka churna, Kadudodkabij churna, Chitrak, Dantimoola churna, Saindhav, etc. should be taken in equal quantities. Then this homogenous mixture should be mixed with Ghrita. A thread is taken it is applied over linen thread and dried. Acharya Vangasen has not mentioned about the number of coating.

Ksharsutra preparation according to Rastaringini¹⁴

According to Rastaringini Haridra [*Curcuma longa*] is mixed with Snuhiksheera (the latex of *Euphorbia nerifolia*). Thread is taken and it is applied over it. Thread is allowed to dry in a shadow. This procedure should be done for 7 days.

Ksharsutra preparation according to Ras Kamdhenu¹⁵

Snuhiksheera (latex of *euphorbia nerifolia*) or Arkasheera (latex of *Calatropis gigantean*), should be taken. One of these ksheer should be applied on thread. This should be dried on in shade. In same manner for three times procedure should be repeated. Thus the coated thread with kshar can be used in treatment of Arsha and bhagandara.

Ksharsutra preparation according to Prof. Dr.P.J. Deshpande (B.H.U.)¹⁶

Late Prof. Dr.P.J.Deshpande the Former Dean, Faculty of Ayurveda, B. H. U made extensive research on preparation of kshasutra and process of standardization of ksharsutra. A surgical linen thread size number 20 is taken and hung inside Ksharsutra cabinet. The thread is coated with Snuhiksheera (latex of *Euphorbia nerifolia*) evenly all around the linen with the help of clean gauze piece. Ksharsutra is applied and is hung inside the cabinet for drying. This procedure should be repeated for 11 days in same method. Next after this 12th coating of Snuhiksheera is done and ApamargaKshar is applied over the wet thread immediately and hung in the cabinet for drying. This procedure is done continuously for 7 days. Then 3 coatings are done with Snuhiksheera and fine powder of Haridra churna. Thus according to this procedure, Ksharsutra is made of total 21 days coating.

Standardization of Ksharasutra-

In standard Ksharasutra use of Snuhi Ksheera, Apamarga Kshara and Haridra churna should be done. Standardization of raw materials use in ksharsutra should be done on the basis of analysis of various physical and chemical parameters to ensure the quality control. It also requires standardization in preparation process and quality standards in packaging, storage, labelling and developing scientific parameters for maintaining its uniform coating, pH, microbial check etc.

Various characteristics of an ideal Ksharasutra based upon following features. Following are standard parameters for ksharsutra.

1. pH: 9.7 to 10.1
2. Length: 30±1 cm
3. Diameter: 1.9mm
4. Min. breaking load: 5.83 kg
5. Weight of coating: 0.83 gm
6. Thickness of thread after coating: 2.10+0.11mm

pH of individual ingredients

1. Snuhi Ksheera: 5.6
2. Haridra: 6.2
3. Apamarga Kshara: 10.2

Various researches was done and following ksharsutra also used 20–

Sr no.	Kshar/Ksheer sutra	Ingredients	Method of preparation	Research scholar
1	Udumbar ksheer sutra ¹⁶	Udumbarksheer	Udumbarksheer coatings of Udumbarksheer Ksheersutra were made on thread.	P J Deshpande M .K Jalan
2	Papaya sutra	Papaya fruit pulp Papain powder Haridra powder	11 coatings of papaya fruit pulp and papain powder 2 coating of papaya fruit pulp and haridra powder	S.N Pathak
3	Yavakshar Sutra	Snuhiksheer Yavakshar Haridra powder	11 coatings of Snuhiksheer 7 coating of snuhiksheer with yavakshar 3 coating of Snuhiksheer with Haridra powder	S. N Pathak A.Vidyarthi
4	Aragvadhadi ksharsutra	Aragvadhadi ksharsutra	7 coating of Aragvadhadi fruit pulp +ghrut +Madhu 3 coating of Aragvadhadi fruit	P. Hemantkumar M.Sahu

			pulp, ghrut, madhu+Haridra 3 coating of Aragwadhadi fruit pulp, ghrut, madhu +Agaru.	
5	Gugglu Ksharsutra 17	Guggul solution , Apamarga kshar, Haridra powder	11 coating of gugglu solution, 7 coating of gugglu solution with ApamargaKshara 3 coating of gugglu solution with Haridra	Praveen kumar M. Sahu
6	Palash ksharasutra 18	snuhiKsheer palashKshar haridra powder	11 coating of snuhiKsheer, 7 coating of snuhiksheer with PalashKshara 3 coating of snuhiksheer with Haridra	Gaurav Parmar Meena Parmar
7	Ghrutkumari Ksharsutra	pulp Apamarga kshar Haridra powder	11 coatings of Ghrutkumari 7 coating of ghrutkumari with apamarga kshar	P.S Reddy K.R Sharma P.S Reddy
8	Yavakshar Sutra	Snuhiksheer Yavakshar Haridra powder	11 coatings of Snuhiksheer 7 coating of snuhiksheer with yavakshar 3 coating of Snuhiksheer with Haridra powder	S. N Pathak A.Vidyarthi
9	Snuhi Swaras Kshar	Snuhi swaras	7 coatings of	A.K Gupta S. N

	Sutra19	ApamargaKshar Haridra powder	Snuhiswaras with apamarga kshar 3 coating of Snuhiswaras with Haridra powder	Pathak
10	Nimba Ksharsutra	Snuhiksheer Nimba Kshar, Haridra power	11 coating of snuhiKsheer, 7 coating of snuhiksheer with NimbaKshar 3 coating of snuhiksheer with Haridra	Sidhharam Arawatti, N Rajeshwari, S Pragya
11	Gomutra Ksharsutra	Snuhi ksheer Gomutrakshar Haridra powder	11 coating of snuhiKsheer, 7 coating of snuhiksheer with GomutraKshara 3 coating of snuhiksheer with Haridra	M.K Yadav A.K Bhargav
12	Modified ksharsutra	Arkaksheer Papaya Ksheer, Tankan kshar , Yashtimadhu churna	11 coating of Arkaksheer 7 coating of Arkaksheer+papaya ksheer +Tankan Kshar 3 coating of Arkaksheer with papaya ksheer + Yashtimadhu powder	N Gupta

Discussion

Acharya Sushruta has mentioned the use of Kshara to treatment of many diseases like Vrana, Bhagandara, Arsha, Ashmari, etc. this has proven the standard treatment. Acharya Sushruta has given an boon to Shalyatntra by use of Ksharsutra. Kshara described is useful orally and externally. Ksharsutra procedure is simple, very safe, effective and with minimal or no complications, un Hazardous and easily acceptable by the patients. Kshara can be used in children, weak persons and decrepit which causes minimal pain. As there is minimal handing of tissue there is minimal interference in patient's routine work. Kshara has capability for treatment in medicine, surgical and para- surgical practice. Ayurveda has described parasurgical methods which are effective, easily practicable and can avoid the recurrence.

CONCLUSION

Ksharsutra acts by performing following actions scraping, excision, draining, penetrating, debridement and healing purposes. Ksharsutra has following properties Tridoshaghna, Pachana, Dahana, Ushna, Darana, Tikshna, Shodhana, Katuka, Vilayana, Shoshana, Ropana, Lekhana, Stambhana and Krimighna, etc. which makes it unique in its treatment modality. Thus there is need of the hour is to standardise all Ksharasutra for its proper use in treatment. More extensive research is necessary in preparation, standardization, and its various utility. Number of patients undergoing ksharsutra for various diseases especially fistula have been increased drastically.

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