



## Review Article

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### A METHOD IN THE PREPARATION OF TEEKSHANA KSHARA AND IT'S PRACTICE IN HAEMORRHOIDS

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#### ABSTRACT

Ksharakarma is a type of chemical cauterization which is performed by Kshara (caustic alkali substance) and said to be one of the important para-surgical procedures in Ayurveda. This Kshara is classified in to various types among those Teekshanakshara is used for Arshas (haemorrhoids) and in other ano-rectal disorders and also its practice is well described by Acharya Sushruta. However in present surgical practice due to lack of understanding and practical exposure in the preparation of Teekshana Kshara and its application in the haemorrhoids is not being practiced commonly. In view of that a standard method is developed on the basis of principles explained by Acharya Sushruta. Its preparation requires ash of Apamarga (*Achyranthes aspera*), Shukti (*Ostrea edulis*) and paste of Chitraka (*Plumbago zylanica*). These are taken in fixed proportions. After specific steps semisolid Teekshanakshara is prepared and preserved in tight lid bottle. This Kshara is to be applied over the haemorrhoids in lithotomic position under suitable anesthesia to the patient. Later the Kshara applied site is washed with lemon juice and post operative maintenance is followed in a standard method. After some time the haemorrhoid site will get sloughed out and leads to fibrosis of mucous membrane which further avoids the recurrence of disease. This is minimal invasive procedure and better than presently available conventional methods and successfully practiced in many of the haemorrhoids patients.

**Keyword:** Arsha, Pratisaraniyakshara, Ksharakarma, haemorrhoids

#### INTRODUCTION

Acharya Sushruta who is the first person in the Indian system of the medicine described various surgical and para-surgical procedures and its application in different diseases. Among the para-surgical procedures, Ksharakarma is one of the important treatment modality and literally it can be understood as chemical cauterization performed by Kshara. The meaning of the Kshara is 'causing the disintegrating (Ksharanath) the vitiated tissue or producing the injury (Kshananath)<sup>1</sup>. While describing about the importance of the Ksharakarma, Dalhana says that it can be performed where surgery, cauterization and leech therapies are not possible<sup>2</sup>. Moreover Kshara acts precisely by its qualities like excision, incision, and scarification (Chedana, Bhedhana and Lekhana) to remove the vitiated tissue<sup>2</sup>. The good Kshara is having the eight properties like it should not be too sharp, too mild and too white; smooth, slimy, non-spreading, wholesome and quickly acting<sup>3</sup>. Kshara is classified depends on usage and potency. According to usage of Kshara, it can be employed in two ways one is externally for external application (pratisaraniya) and other is for internal administration (pananiya)<sup>4</sup>. Further Pratisaraniyakshara is sub-divided to three Mrudu, Madhayama and Teekshana (mild, moderate and high)<sup>5</sup> based on the potency. The indications and specification of potency of Kshara in the diseases depends on the type, stage and severity of the disease<sup>6</sup>. Moreover this Kshara should be used in précised manner by wise surgeon, it cures the disease, and otherwise it proves like poison, fire, sharp instrument and also trouble the patient<sup>7</sup>. Haemorrhoids (Arshas) is one of the common ano-rectal disorders. In this regard Acharya Sushruta

described its patho-physiology, types, clinical features and also elaborately about four fold treatment measures like conservative management by administration of drugs (Oushadha), chemical cauterization (Ksharakarma), cauterization (Agnikarma) and surgery (Shastrakarma)<sup>8</sup>. These procedures are specifically indicated according to stage and Doshic predominance of the disease. Further if these procedures are analyzed the conservative therapy is useful in the first and second stage of haemorrhoids, chemical cauterization is useful second and third stage of haemorrhoids, cauterization for external and sentinel piles and the last measure surgical excisions for the fourth stage strangulated piles. Regarding the Ksharakarma Acharya Sushruta specifically indicates the use of Teekshanakshara in the haemorrhoids (Pitta and Raktaja Arshas)<sup>9</sup> and also its procedure of application was elaborately explained<sup>10</sup>. However Ksharakarma is not usual in the surgical practice for the management of Arshas in the present days as there may be lack of understanding in the preparation of the Teekshanakshara or procedure of application in the Arshas etc. In the following of this paper preparation and application of the Teekshanakshara was enlightened and also practiced successfully in many of the patients with haemorrhoids. Further it may help in understanding very easily for Ayurvedic professionals.

#### Preparation of Teekshanakshara

The preparation of the Pratisaraniyakshara was described by various scholars in the Ayurvedic classics. Among those Acharya Susruta has explained immensely about its preparation in the Sutrasthana<sup>5,11</sup> and its procedure of

application in Arshas was enlightened in the Chikistasthana of the Sushrutasamhita.

During the preparation of Teekshanakshara below mentioned few steps are involved, if analyzed from the descriptions mentioned in the Ayurvedic classics.

- Selection and collection of drugs
- Preparation of the Ash
- Preparation of solution
- Filtering
- Boiling
- Further addition of drugs

#### **Selection and collection of drugs**

In the preparation of Teekshanakshara mainly three drugs are required, Apamarga (*Achyranthes aspera*), Shukti (*Ostrea edulis*) and Chitraka (*Plumbago zylanica*). Apamarga is one of the common and main herbs used for preparation of Kshara and it should be collected in dry. Shukti is a sea animal shell, described in Ayurvedic classics as one among the Shuklavarga dravyas<sup>12</sup>. It contains calcium carbonate 85 to 90 %, phosphate and sulphate of calcium and magnesium, oxide of iron, alumina and silica. Chitraka is one of the common drugs described for loss of appetite and in the piles etc. In the preparation of Kshara only roots of Chitraka are used and its roots contain a bitter, crystalline, yellow, needle-like active substance which is known as Plumbagin<sup>13</sup>.

#### **Preparation of Ash**

Entire dried 10 kg of Apamarga plant should be collected and was made in to small pieces and formed in a heap at windless place. Then whole twig is allowed to burn completely in to ash. When fire is extinguished, ash has to be collected and generally it will be 1 kg in weight.

#### **Preparation of solution**

In the preparation of the Teekshanakshara only one liter should be taken from the well prepared 1kg of ash (it is weightless substance hence it may be collected in quantity rather than in weight) and to be mixed by stirred well with six times of water (6liters) and then allowed to settle for overnight.

#### **Filtration**

The prepared solution has to be filtered through double folded cloth for 21 times and residue should be thrown out. Later Amber colored (similar to cow's urine) filtrate will be obtained.

#### **Boiling**

The filtered solution has to boil under mild temperature (Mandagni) till it gets reduced to half (3 liters). Then 1/3 (1 liter) of concentrated alkaline solution (Kshara jala) was taken out of the vessel.

#### **Further addition of drugs**

Then in separated 1/3<sup>rd</sup> Ksharajala red heated 100 g of Shukti (1/10<sup>th</sup> of the total weight of ash) has to be mixed and macerated till it will get dissolved completely. Thus dissolved Shukti is added to boiling Kshara jala and continued to boil. At the end of boiling when it comes to

semisolid (neither too liquid nor too solid) 10 g of Citrakamoola kalka (1/10<sup>th</sup> of Shukti weight) is to be added to the boiling Kshara and allowed to heat for few more minutes. Later it is preserved in tight lid container and obtained Kshara P<sub>H</sub> value is 13.5 (P<sub>H</sub> value of a strong alkali is 7 to 14).

#### **Indications of Ksharakarma**

Acharya Sushruta indicated Pratisaraniyakshara karma in the various conditions and one among important disease is Arshas<sup>9</sup>. If this procedure analyzed specifically it is useful for 2<sup>nd</sup> to 3<sup>rd</sup> degree haemorrhoids.

#### **Contra-indications of Ksharakarma**

This procedure is not advisable in the diseases like fevers, cardiac ailments etc., in the children, pregnant women, physically weak<sup>14</sup>. It may not be useful in 4<sup>th</sup> degree haemorrhoids, external pile masses and skin tags.

#### **Procedure of Ksharakarma**

Generally all surgical procedures include three stages Pre-operative (Poorvakarma), Operative procedure (Pradhanakarma), and Post-operative procedure (Paschatkarma)<sup>15</sup>. Similar stages in Ksharakarma can be mentioned as below:

#### **Pre-operative (Poorva Karma)**

Selected patients after all other investigations for the procedure are kept nil orally for at least 6 hours. Later part preparation has to be done, soap-water enema and administration of pre-medications and anesthesia, is administered according to the need.

#### **Operative Procedure (Pradhana Karma)**

The procedure of Pratisarana Ksharakarma in the Arshas (haemorrhoids) was explained in detail by Acharya Sushruta in Chikitsasthana<sup>10</sup>. However this procedure is modified to perform without difficulty in the present surgical practice. The Pratisaraniya Ksharakarma can be done local or spinal anesthesia according condition of the patient, and made to lie down in lithotomy position. Later anus and surrounding area cleaned with antiseptic lotions and then manual anal dilatation has to be done sufficiently enough to admit three to four fingers. Then position of the haemorrhoids will be noted with simple proctoscope. Afterwards slit proctoscope will be introduced and for better exposure of the site the skin around the pile mass is pulled with the Alley's forceps. Afterwards the haemorrhoidal mass will be scraped gently with rough surface rod or spoon and also healthy mucosal membrane is to be covered with wet cotton squabs to prevent spilling of Kshara on healthy mucosa. Then Kshara has to apply on the haemorrhoid and should wait for 1½ to 2 minutes, till the color of the pile mass turned to black (pakwa Jamboophala varna). Then the haemorrhoidal mass is to be cleaned with plain water followed with lemon juice. In this regard Acharya Sushruta says that when sour come in contact of alkali (kshara), the potency of Kshara gets neutralized like fire pacified with water<sup>16</sup>. If the haemorrhoidal mass not turned properly in to black color, then the procedure can be repeated on the same site at the same time. Similarly it can be repeated on all other

hemorrhoids. Then spinchtereotomy can be performed as per the condition of anal sphincter. Afterwards the anal canal is packed for 4 to 6 hours with cotton pads, which are soaked in Mahanarayana taila to prevent local oedema.

#### Post operative procedure (Paschat Karma)

If the procedure is performed under spinal anesthesia the post-operative general condition of the patient should be maintained in a slandered method. Then general treatment principles are to be adopted in order to stimulate digestive fire and prevent of aggravation of Vata<sup>17</sup>. Generally for these patients' liquids, easily digestible and fiber food is advised after this procedure. Then Triphala guggulu, Ghandakarasayana and Mruduvirechaka (mild laxatives) etc. drugs can be administered as per the condition and if still pain is persist analgesics may be employed. Local dressing is to be left undisturbed for 6 hours, afterwards it should be changed twice daily and per-rectal 10 to 20 ml of Mahanarayanataila or Yastimadhutaila should be administered for 2 to 3 weeks before and after passing stools to control pain and further it may help in quick healing.

#### Complications

In Ayurvedic classics described that improper application of Kshara in the anal region may gives rise edema, burning sensation, necrosis, fainting etc. or even fatal<sup>18</sup>, however in the regular practice only secondary haemorrhage and rarely stenosis of the anal canal if Kshara was not applied properly or spilled over the healthy mucosal membrane.

#### DISCUSSION

In Ayurveda many of the single drugs, compound drugs and preparations were described, if these are understood properly in these days's immense changes can bring in approaches and applications in medical world. Similarly Ksharakarma is a simple procedure; however it is not being commonly practiced by many surgeons may because of difficulty in preparing Pratisaraniyakshara and its application in Arshas. In this regard preparation of Teekshanakshara is done based on principles described by Acharya Sushruta and selected the easily available drugs in fixed proportion in such a way that can be prepared very easily and also practiced in Arshas. The word Arshas generally includes both piles and haemorrhoids. However further classification as per Doshic predominance Pitta and Raktaja Arshas can be considered as haemorrhoids and Vata and Kaphaja arshas can be considered as Piles. The main treatment principles in Ayurveda for Arshas are Bhesaja, Sastra, Kshara and Agni Karma. While treating Arshas selective principles can be used either single (only Bhesaja etc.) or in combination (Bhesaja + Ksharakarma etc.) as per the stage and predominance of Dosh. In Pittaja and Raktaja Arshas (hemorrhoids) Pratisaraniya Ksharakarma is indicated and its probable mode of action on haemorrhoids may explain in two ways one is by direct application Kshara cauterizes the haemorrhoids due to Ksharaguna (scraping property) and other is it may coagulates blood in the haemorrhoidal plexus which leads necrosis and sloughing of tissue. Later

tissue becomes fibroses and scar formation of mucous membrane which further avoids recurrence of diseases.

#### CONCLUSION

Teekshanakshara can be prepared easily as described by Acharya Sushruta if the required drugs selected in a fixed proportion. The clinical classification described by Susruta is helpful in the treatment of disease. Pratisarana Ksharakarma is useful 2<sup>nd</sup> to 3<sup>rd</sup> degree of haemorrhoids. Application of Kshara over the haemorrhoids helps in correction the local pathology. However for complete management of disease systemic correction is required and required drugs should be administered. The advantages of Kshara therapy technique includes mild intensity post operative pain, minimal invasive procedure, no bleeding, less period of hospitalization, minimal or no recurrence and no anal stricture formation (if correctly applied). Acharya Sushruta is one of the great surgeons in the world and many of the procedure described can be practiced in present days with properly interpreted as per the requirement.

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