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## Preparation of *Ghontaphaladi Kshara*: A practical approach

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### Abstract

Ayurveda is a holistic science having various branches like *sharir rachna*, *sharir kriya*, *kaya chikitsa*, *shalya tantra*, *shalakya tantra* etc. Among these branches *ras shashtra* and *bhashajya kalpa* are branches of Ayurveda dealing with the knowledge of preparation of various types of medicines like *Vati*, *Asava*, *Arishta*, *Churna*, *Avleha* and *Kshara* etc. *Kshara* or medicated alkaline material is the herbal extract of plants like *Apamarga*, *Snuhi*, *arka*, *Kutaja*, *Aragwadha*. It can be obtained from single herb or it can be compound/mixture of many herbs or can be prepared from mixture of herbs and minerals as a herbomineral *kshara*. *Ghontaphaladi kshara* is a mixed alkaline preparation of different herbs, salts and resin. *Ghontaphaladi Kshara* has been shown to be one of the treatments of *Nadi Vrana*, a non-healing type of persistent ulcer. Along with many classical texts descriptions about *Kshara* are available in *Sushrut Samhita*. The *Kshara* or alkaline preparations are very effective in many diseases and even can replace the need of many surgical procedures. *Kshara* has many therapeutic uses. *Kshara* or alkaline preparation can be utilized in different ways like internal use such as *paaniya kshara* in *mutrashmari*, external application as *pratisarniya Kshara* in *Arsha*, in the form of *Kshar sutra* in *Bhagandra* (Fistula-in-Ano), and *Kshar varti* in *Nadi vrana* (sinuses). The current study details the most practical way of preparing *Ghontaphaladi Kshara* for clinical use.

**Keywords:** Ayurveda, shalya tantra, kshara, alkaline preparation, ghontaphal, ghontaphaladi kshara, nadi vrana

### Introduction

“*Tatraksharanatkschanadva kshara.*”<sup>[1]</sup> Acharya *Sushrut* defines the *Kshara* as the drug which has the properties of *Ksharan* or *Kshanan*. *Kshara* has the properties of destroying the unhealthy fibrous tissues and skin.

According to Acharya *Charaka* “*chhitwachitwaashyath kshara ksharatwat ksharyavyadha.*”<sup>[2]</sup> that means *Kshara* scrapes the abnormal tissues from its location and destroys it after dissolving it because of its corrosive nature. *Kshara* is a caustic material obtained after distillation process of ashes. *Kshara* is alkaline in nature and can be prepared from single drug or in combination with different drugs.

According to Acharya *Bhavamishra* “*kshara etehagninatulya Gulmshoolharabhrisham.*”<sup>[3]</sup> *Kshara* is like *Agni* or hot in potency. It can be used in the treatment of *Gulma* and *Shoola*.

Acharya *Sushrut* has described *Ghontaphaladi yoga* in *Sushrut Samhita chikitsa sthana*<sup>[4]</sup> in the context of *Nadi vrana chikitsa*. *Ghontaphaladi Kshara* is a powdered extract made from of ashes of herbs and water, mixed with *lavana* and *laksha*.

The *kshara* is classified in various ways<sup>[5]</sup>:

- By Administration – *Paaniya and Pratisarniya*
- By Concentration - *Mridu, Madhyam and Teekshana*

*Kshara* is not a *rasa* but it is a repository of all tastes with combination of *Katu* (pungent) and *lavana* (salt) *rasa*. Besides performing action of *Dahana*, *Pachana*, *vidharana*, *vilayana*, *Shodhana*, *Ropana* and *krimi*, *Ama*, *medovishanashka*, it is hot in potency and has penetrating properties<sup>[6]</sup>. It is considered best among *Shashtra* and *Anushashtra* and can be used where treatment by *shastra* is not advisable. *Kshara* can be used in the treatment of diseases that are difficult to cure with Surgery and can offer great success.

### Properties of *Kshara*<sup>[7]</sup>

- *Rasa* - *Katu, lavana*
- *Virya* – *Ushana*

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- Vrana- *Shukla*
- Guna – *Sowmya, Teekshna, Agneya*
- Doshghana- *Tridoshghana*
- Karma – *Dahana, Pachana, Ropana, shodhana, lekhana, vilayana*

*kalkaeshvartikritohantya chirennadih*” [8].

It is a combination of *Ghontaphal twak, Panch Lavana, Laksha, Pugiphal*, and leaves of *vyotishmati*. Acharya *Sushruta* has mentioned about the combination of drugs with reference to *chikitsa* of *Nadi Vrana* by making *varti*. *Kshara* has been tried to be prepared using these material in combination in best possible way.

**Drug review**

“*Ghontaphal twaglavnani*

*lakshapugiphalamchavlanamchpatram. Snuhiarkadughdentu*

**Description of drugs** [9]

<p>1. Ghontaphal: Botanical name: <i>Zizipus xylopyrus</i> Family: <i>Rhamnaceae</i> Part used: <i>phal twak</i> Properties: Rasa – <i>Kashaya, Mrudu, Katu</i> Guna- <i>laghu</i> Virya – <i>Ushna</i> Vipaka-<i>Katu</i> Karma-<i>Vishaghana, Kaphahara, vatahara</i></p>	<p>2. Jyotishmati Botanical name: <i>Celastrus paniculatus</i> Family: <i>Celastraceae</i> Part used: <i>Leaves</i> Properties: Rasa – <i>Tikta Katu,</i> Guna – <i>Teekshna</i> Virya – <i>Ushna</i> Vipaka- <i>Katu</i> Karma-<i>Vatahara, Kaphahara, Vednasthapana</i></p>	<p>3. Pugiphala Botanical name: <i>Areca Catechu</i> Family: <i>Palmae</i> Part used: <i>Fruit</i> Properties: Rasa – <i>Kahaya, Madhura</i> Guna - <i>Guru, Ruksha</i> Virya - <i>Sheeta</i> Vipaka- <i>Katu</i> Karma – <i>Tridoshahara, Stambhaka, Vranaropka</i></p>
<p>4. Laksha Botanical name: <i>Laccifer Lacca</i> Family: <i>Lacciferidae</i> Part used: <i>Resin</i> Properties: Rasa: <i>Kashaya</i> Guna: <i>Laghu, Snigdha</i> Virya: <i>Sheeta</i> Vipaka: <i>Katu</i> Karma: <i>Kaphapittashamka, Stambhka, Svargikarana, Sandhaniya, Kushthaghana</i></p>	<p>5. Panchlavana</p> <ul style="list-style-type: none"> <li>▪ <i>Saindhava (Rock Salt)</i></li> <li>▪ <i>Sauvarchal (Sochal salt)</i></li> <li>▪ <i>SAMUDRA (Sea Salt)</i></li> <li>▪ <i>Veeda (Ammonium Chloride)</i></li> <li>▪ <i>Audhbidha (Romak or Sambhar salt)</i></li> </ul> <p>Rasa: <i>Lavana</i> Guna: <i>Guru, Snigdha, Teekshna</i> Virya: <i>Ushna</i> Vipaka: <i>Katu</i> Karma: <i>Vatashamaka, Shothahara, Vednasthapaka</i></p>	

**Procedure for preparation of kshara**

*Ghontaphal twak* and *jyotishmati* leaves were taken fresh and dried under the sunlight till all the water content was evaporated. Further 1kg of dried *Ghontaphal twak*, 1kg of dried *Jyotishmati leaves* and 1 kg of dried *pugiphal* was taken. Since it is very difficult to burn *pugiphal* as a whole, it was crushed in to small pieces. All the herbs were then put in a vessel and burned till white ash was obtained. Then ash was

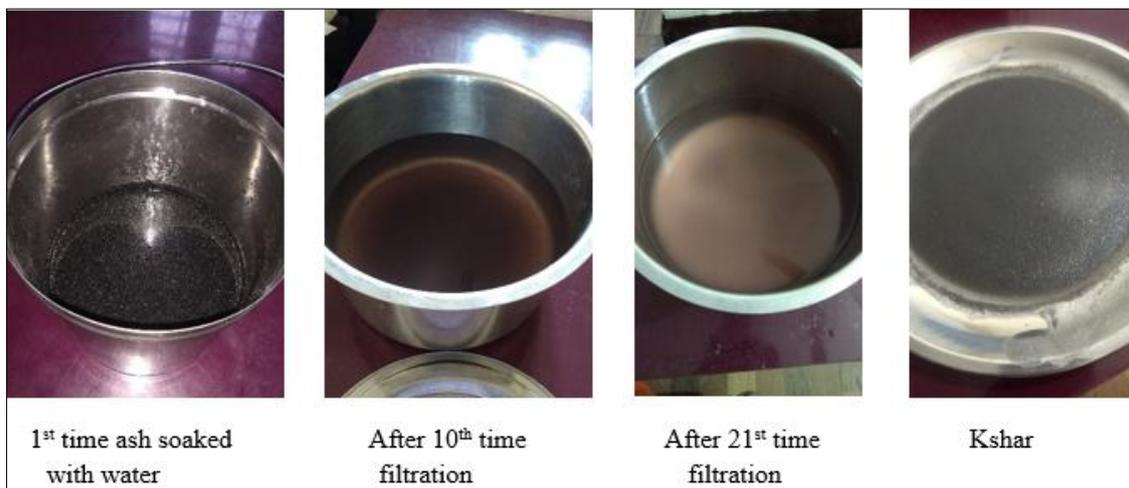
dipped in water with the ratio of 1:6 (weight / volume). The mixture was kept overnight and the liquid part was filtered from the dipped ashes. The filtration was repeated 21 times to get clear solution. The clear solution was then heated on *mandagni* till all the water evaporated in order to obtain *kshara* from bottom of vessel [10]. *Kshara* was then dried and stored in airtight jar.



Burning of Herbs



Ash



### Observation

- 1kg of *Ghontaphal twak*, 1 kg of *Jyotishmati* leaves and 1kg of *pugiphal* were all taken in dried form with a total quantity of 3 kg.
- Ash obtained after burning was 166 gm.
- Ash: Water was taken in the ratio of 1:6 (i.e. for 166 gm of ash was added to 996 ml water).
- After filtering 21 times slightly blackish clear water was obtained that was subjected to heat to obtain *Kshara*.
- At the end of procedure 30 gm of *Kshara* was obtained.
- *Kshara* was dried and kept in air tight container.
- For therapeutic use to make *Varti*, equal amount of powdered *lavana* and *laksha* was added in this *Kshara* to make herbomineral *kshara* preparation.
- Dosage: As required to make *varti*.
- Therapeutic uses: It is used for making *varti* to be use in treatment of *Nadi Vrana*.

### Discussion

As per classical texts, *Kshara* has many properties like *ruksha*, *laghu*, *Teekshana*, that can reduce the overgrowth of tissues. It has *Kshrana* or *kshanana*, properties and can slough out the debris and unhealthy fibrous tissues and therefore can make the wound clean. Further it has *lekhana* poroperties and can heal the wound. Since *Kshara* is hygroscopic in nature, it should be kept in air tight container. In this *Kshara*, *lavana* was added after the preparation of *kshara* because *Lavana* when added to boiling water may change the pH of *kshara*. There is significant effect of heat on water and salts<sup>[11]</sup>. All salts have ionizing bonds and when put in boiling water, ions of salts react with the ions of water. The ionic exchange occurs and will in turn bring the pH of water to acidic<sup>[12]</sup>. Therefore, salts should be added after the preparation of *Kshara* when needed. Further *Laksha* should be added to prepared *Kshara* in powdered form because *Laksha* contains about 85% of resin and rest 15% dye and other materials. *Laksha* cannot be burnt or dissolved in water and therefore should be used as a whole in powdered form.

### Conclusion

This is a unique formulation and has been prepared for the first time. This is the only possible method to prepare a mixed *kshara* of herbs, salts and resin as per the content given in *Sushrut Samhita* in the treatment of *Nadi Vrana* for making *Kshara Varti*. Due to its *chhedana*, *Bhedna*, *Lekhana*, *Ropana* properties of *kshara* it may be very useful in the treatment of *Nadi Vrana*.

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