

**A NOVEL METHOD FOR VRANA SHODHANA & ROPANA USING KSHARAJALA****Anantkumar V. Shekokar<sup>1\*</sup>, Kanchan M. Borkar<sup>2</sup>**\*<sup>1</sup>Professor & HOD, <sup>2</sup>Reader, Dept of Shalya Tantra, S.V.N.H.T's Ayurved Mahavidyalaya, Rahuri Factory, Maharashtra, India.

Received on: 25/02/2015

Revised on: 18/03/2015

Accepted on: 28/03/2015

**ABSTRACT**

Indians have paid enough attention to discover the therapeutic effects of plants and herbs as medicinal agents in many diseases. Plants contain "Alkaloids" and various other chemical substances which form the base for many medical preparations. Most of the drugs used are derived from the natural world through the experiments of earlier civilization. *Ksharajala* is an innovative concept used for management of Infected & chronic Wounds and ulcers. This *Ksharajala* was prepared with the help of *Apamargakshara* & distilled water in 1:100 proportion. It can be used in number of open wounds & ulcers. This *Ksharajala* is prepared similar to the *Hima kalpana* preparation.

There are number of dressing materials given by *Sushruta* e.g. *Pichu*, *Kawalika*, *Plota* and *Vikeshika* or *Varti*, *Kashaya*, *Kwatha*, *Rasakriya*, *Swarasa*, *Lepa* and *Hima*. *Ksharajala* as a dressing material which can be used as for deep & broader wounds & ulcers. In the present study preparation of *Ksharajala*, advantages, indications, disadvantages, sterilization, storage, standardization were observed for simple & safest parasurgical practice.

**KEYWORDS:** *Ksharajala*, *Apamarg*, Distill water, Wound, Ulcer, *Shodhana*, *Ropana*.

**INTRODUCTION**

The *Ayurvedic* branches are ocean of Knowledge consisting of many innovative concepts in concise form. Review of literature reveals that traditional plant drugs are beneficial for several modalities in wound healing management. The wide spread interest in drugs derived from plants is because of the belief that plants are safe, dependable & with lesser side effects<sup>[1]</sup>. *Vrana* (Wound/Ulcer) is most common condition in surgical practices which have been successfully treated since ancient. *Sushruta*, the father of surgery mentioned *Anushastra* are effectively used in management of wound and ulcer<sup>[2]</sup>. *Kshara* is best among *Shastra* and *Anushastra* because it acts as a *Shodhana*, *Ropana*, *Lekhana*, *Bhedana*, *Chedana* & *Darana* properties simultaneously and also used for different conditions of wound and ulcer which are *Utsannamansan* (hypergranulation tissue), *Kanthinan* (firm to hard consistency), *Kanduyukta* (itching), *Chirothitan* (chronic)<sup>[3]</sup>. But direct application of *Kshara* may be harmful to patient because of severe irritation, burning sensation and inflammatory reaction of *Kshara*.

*Acharya Sushruta* has mentioned *Kshara*<sup>[4]</sup> in *Anushastra*, *Upayantra*, *Agropaharaniya* and one of the *Upakram* of *Vrana*. *Acharya Sushruta* emphasizes on the fact that, when the *Kshara* administered by an ignorant physician can harm the body like *Agni*, *Shastra* and *Vajra* or even causes death itself<sup>[5]</sup>. While the same *Kshara* when administered by an intelligent and well skilled physician it can prove potent enough and subside all serious and most troublesome disease in which it is indicated. Thus *Kshara karma* has been considered as a wealth and weapon in *Ayurvedic* Pharmacopeia.

*Acharya Sushruta* defines the *Kshara*; as the substance possessing *Ksharana* and *Kshanan* properties<sup>[6]</sup>. *Ksharana* means one which mobilizes and removes the deformed skin, flesh etc. or which removes the vitiated *Doshas*. Although, as *Dalhana* mentioned a few authorities considered the reference as *Ksharana* means *Shodhan* [purification]. Probably these two groups of authorities intended to narrate the meanings of *Ksharana* and *Kshapana* as about *Pratisaraniya* and *Paniya Kshara* respectively. *Kshanan* means

which destructs the deformed Skin, Flesh etc. *Acharya Charaka*<sup>[7]</sup> defines *Kshara* as one which scraps the abnormal tissue from the locating viscera and drags it down after dissolving because of its corrosive nature. *Sushruta* has given number of dressing materials and methods in Shasthi Upakarmas for management of wound & ulcer<sup>[8]</sup> e.g., *Pichu, Plota, Kawalika & Vikeshika* or *Varti Kashaya, Kwatha, Rasakriya, Swarasa, Lepa and Hima*. Among these *Ksharajala* is used for *Dhavana* (clean) the *Vrana* and also to remove the *Vranastrava, Raktastambhana, Vedanashamaka* and *Krimighna*<sup>[9]</sup>. It can also be used as *Purana* (syringing) in those wounds or ulcers which are very deep. In such wounds or ulcers *Ksharajala* removes all the debris hiding inside the wounds or ulcers.

During the Preparation of *Ksharajala*, *Apamargakshara* is *Shodhana & Ropana* in *Karma* that's why *Ksharajala* used for debridement or to remove unhealthy tissue and enhances formation of healthy granulation tissue in those where one cannot perform surgical intervention, women, children, aged people, wound over sensitive & vital areas of patient<sup>[10]</sup> the present article was aimed at innovation & evaluating *Ksharajala*<sup>[11]</sup> for earlier normal epithelization.

#### Aims & Objectives

- I. To prepare the *Ksharajala* with *Apamargakshara* and distilled water.
- II. To sterilized the *Ksharjala*.
- III. To establish standard *Ksharjala* as dressing material for chronic wound s & ulcers.

#### Material Methods

Preparation of *Ksharjala* was carried out at S.V.N.H.T'S *Ayurved Mahavidlya*, dept. of *Shalya Tantra, Rahuri, Ahmednagar, Maharashtra, 413706*.

Material required for preparation of *Ksharajala* as mentioned below

1. *Apamarg Kshar*
2. Distilled water
1. ***Apamarga Kshara***<sup>[12]</sup>

Whole plant is to be collected and cut into pieces. After drying, the plant in shade, it should be burned on light fire. Ash is collected and dissolved in 6 times of water, -solution, so formed solution is filtered with the help of percolator. Residual ash is gained dissolved in 4 times of water and the same procedure is repeated at least twice in order to take away all the alkaline material from ash. Ultimately, the ash remains as a neutral residue, which

should be thrown away. The fluid is filtered several times and finally, the *Kshara* is obtained by evaporating the filtered solution.

#### 2. Distilled water

Distilled water used in preparation of *Ksharajala* was obtained from distillation apparatus under distillation process in the department of research methodology of S.V.N.H.T Ayurved College, Rahuri.

#### Method of *Ksharajala* preparation

1 gm. Of *Apamargkshara* was mixed with 100 ml. of distilled water and soaked overnight in jar. In this way a 1:100 proportion of *Apamargkshara* and distilled water respectively was mixed and sealed in plastic bottle having capacity of 400 ml. in air tight container. *Kshara jala* should be placed in cabinet for safe storage as well as sterilization.

#### Advantages

1. It can be preserved for long time.
2. Good dissolution properties.
3. Good tolerance by the patient.
4. It acts as *Chedana, Patana, Darana & Lekhana* simultaneously.
5. It acts as *Krimighna, Shodhana & Ropana* combine.
6. It is easy to apply.
7. It is less irritant.
8. It is used as dressing material in the treatment of wound & ulcer.
9. It is useful to remove slough, devitalized tissues and pus pockets.
10. It is substitute for hydrogen peroxide and Eusol in wound management as a herbal formulation.

#### Indications

1. Any open wound /ulcer.
2. Recurrent wound /ulcer.
3. Deep wound /ulcer.
4. Superficial wound /ulcer.
5. Infected wound / ulcer.
6. It is useful in Diabetic wound to remove slough.
7. It is useful for foot bath in diabetic foot ulcer.

#### Disadvantages

1. Some allergic reactions may occur due to alkaline properties.
2. It cannot be used in eyes, on face, genital parts, and breast, because of delicate and smooth skin.
3. In preparation of *Ksharajala* a skilled hand is very important as it requires uniform &

equal proportion of *Ksharajala* for clinical application.

It was done in the Dept. of pharmacognosy & pharmaceutical at College of B.pharmacy, Rahuri, Ahmednagar.

### Analysis of *Ksharaplota*

Sr. No.	Name of the test	<i>Ksharaplota</i>
1	Color	Brownish
2	Taste	Salty
3	Odour	Characteristic
4	pH	11.09
5	Viscosity	0.7978 mPa.s
6	Specific gravity	1.007
7	Spreadibility (in seconds)	2 seconds
8	Storage	Stable at room temperature

### CONCLUSION

The newer concept of *Ksharajala* preparation & its clinical application will open new research path for wound toileting and to promote wound healing with *Ayurvedic* remedies in a modern surgical practice.

For more concrete clinical evaluation of *Ksharajala* on various wounds and ulcers, large dimensional study is essential.

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#### Cite this article as:

Anantkumar V. Shekokar, Kanchan M. Borkar. A Novel Method for Vrana Shodhana & Ropana Using *Ksharajala*. International Journal of Ayurveda and Pharma Research. 2015;3(3):19-22.

**Source of support: Nil, Conflict of interest: None Declared**

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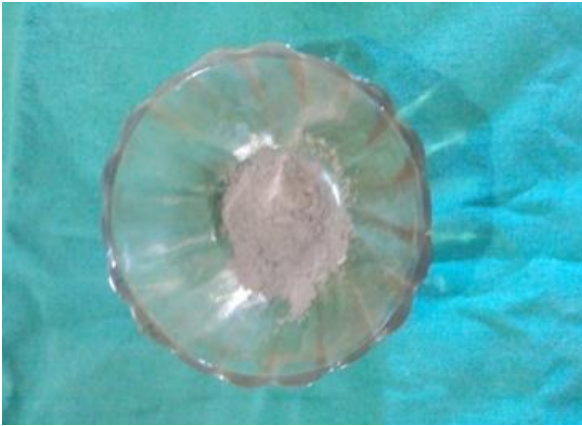
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**PHOTOGRAPHS**



**Photo No.1. *Apamargakshara***



**Photo No.2. Distilled Water**



**Photo No.3. *Ksharajala***



**Photo No.4. Preservation of *Ksharajala***