**Expository aspect for action of Ksharaploita**

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**ABSTRACT**

Kshara Karma or chemical cauterization described in Ayurveda as one of the Anushastras (Minimum Assess Surgery). It is considered superior in all types of Anushatra due to its efficacy in conditions where all other measures failed to cure diseases or surgical interventions. Healing of wounds and cuts is a very critical if wound or cuts becomes worse and turned to non-curable. In such cases, Father of Indian surgery Sushruta mentioned use of dressing materials such as: Picha, Plota, Kawalika and Vikeshika for the management of Dushta Vrana, Plota used to clean & covers the Vrana very deeply and helps to removes debris of wounds effectively. Considering these all facts present article emphasized mode of action of Ksharaploita (Alkaline Medicated Gauze) for exploring its surgical significance with logical interventions.

**Keywords:** VranaShodhana, VranaRopana, DushtaVrana, Action of Ksharaploita, Alkaline Medicated Gauze.

**INTRODUCTION**

Ayurveda is a divine science of medicine which described various principles and theories of management of wound or other traumas and cuts. Ayurveda mentioned Vranashodhana and Vranaropana drugs for the management of cuts or wounds along with different dressing techniques such as; Picha, Plota and Kawalrika etc15. Plota is very efficient healing technique for wound care since it helps to heal and cover the wound. Ksharaploita (Medicated Gauze) is one of such dressing technique used for the management of infected and chronic wounds. Ksharaploita is prepared by using Snuhikshira (Milk of Euphorbia nerifolialinn.), Apamargakshara (Ash of Achyranthesasperalinn.) and Haridra (Curcuma longa L.). These drugs applied as single coating gauze (Plota) over open wounds and ulcers48. This Ksharaploita offers excellent VranaShodhana and Ropana properties in the treatment of DushtaVrana. Ksharaploita is a simple and safe technique with minimal invasion may also utilize for effective management of Dushtavrana (Infected wound /ulcer).

**Preparation of Ksharaploita**

Material required for preparation of Ksharaploita is mentioned below.

1. Snuhikshira (Euphorbia nerifolia) 2. Apamarg Kshara (Achyranthis aspera)
3. Haridra powder (Curcuma longa)
4. Single layer Gauze piece
5. Wooden Ring
6. Cabinet
7. Polythene Bag (12 x 8 cm)

**Method of Ksharaploita preparation**

Round gauze piece, 23 cm in diameter is fixed in the doubled layered circular wooden ring. This gauze piece is made so tight that the coating can be done uniformly. Initially on 1st day Sunhikshira 50 ml was applied with the help of small cotton swab over the gauze on its whole circumference. The hands should be gloved before smearing. The wet coated gauze with rings should be placed inside cabinet. It was then dried for a day, on the 2nd day dried gauze was again smeared with 50 ml of Sunhikshira and followed by 20 gm of Apamargakshara with cotton swab, let it be dried in a cabinet for a day. On the 3rd day dried gauze was smeared with 50 ml Sunhikshira followed by 20 gm of Haridra powder which was then allowed to dry in the cabinet for a day 1 coating of Sunhikshira required 50 ml quantity, so total quantity of Sunhikshira Ksharaploita was 150 ml, 20 gm of
**Ksharaplota** overall possess penetrating, scraping, draining, debridement, sclerosing, healing, antibacterial and anti-inflammatory effect in the management of wound and cuts.  

All three ingredients contribute significantly towards mode of action as follows:

1. **Snuhi** (Latex of Euphorbia neriifolia) Kshara possess properties such as; Lekhana, Vedanasthapana, Rakthashodhak and Vishaghana due to Katu & Tikshana Rasa and Ushna Virya. The latex of plant also found to have rubificient, irritant and powerful caustic action when applied to a raw surface; it also offers analgesic, anti-inflammatory, wound healing and antibacterial activity. It is believe that Euphorbia neriifolia enhances wound healing process by promoting tensile strength, epithelization and angiogenesis.


3. **Tikta & Laghu Guna** and Ushanya Virya of Haridra (Curcuma longa) provides Varnya, Sandhana, Vedanashamaka, Raktaavpamabak, Raktaashudhikar and Lekhana properties. It enhances capillaries vasodilation when applied locally thus facilitates wound debridement (Shodhana) and wound healing (Ropana) process. It also possesses anti-inflammatory, analgesic and antibacterial activity.

**Therapeutic action of Ksharaplota dressing**
- It helps in curing, draining and healing of wound.
- It removes unhealthy tissue.
- Promotes healing due to caustic action.
- Controls infection due to aseptic and its anti-microbial action.
- Separate debris and clean wound thus boost natural process of tissue healing.
- Offer anti-inflammatory effect thus relieves pain.

**Probable Mode of action of Ksharaplota**

Ksharaplota composed of Snuhi & Apamarga has Ksharan and Kshanan properties, Apamargakshara also cauterize tissue by its Ksharana Guna while Haridra offers Krimighana & Ropana properties thus provides VranaShodhana & VranakRopana effect. Chemical properties of Ksharaplota remove unhealthy tissue and alkaline nature of Kshar offers aseptic and antimicrobial effect thus reduces chance of secondary infection.

Snuhi component of Ksharaplota provides moisturizing effect due to its sticky property which ultimately promotes epidermal migration resulting enhanced synthesis of connective tissue. The Snuhi latex having binding property therefore retains surgical benefits (debridement, scraping, hemostatic, aseptic, antiseptic and healing effect) of Apamargakshara for longer time.

Snuhikshira, Apamargakshara and Haridra support biological action of each other and not contraindicated when applied together. Sustained release action of Ksharaplota medication releases ingredient slowly and make available medicine for longer duration to achieve complete healing of chronic wounds.

**Figure 1:** Ingredients used to prepare Ksharaplota.
**CONCLUSION**

Ksharaplota is a parasurgical approach used extensively for the management of infected wound. The treatment with Ksharaplota reduces chances of recurrence and it possesses great ability to treating chronic wound. The chemical potency of Ksharaplota offers advantage in the management of Vrana with minimal invasion. Therefore Ksharapolta (Alkaline Medicated Gauze) therapy accepted widely in the management of chronic and infective stages of wound. Ksharaplota also helps in emergency condition as a dressing material for cleaning of infected cuts or wound. The novel and established application of Ksharaplota is an important and efficient modality of Shalyatantra in Ayurveda.
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