ROLE OF APAMARGKSHARAVARTI IN THE MANAGEMENT OF MANDIBULAR SINUS – A CASE STUDY

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ABSTRACT

*Kshara* refers to corrosive or causative. *Kshara* is considered superior to all surgical and para surgical measures because they perform the work of incision, puncture and scarification to relieve derangements of *Tridosha* and uniformly affect the diseased part to which they are applied. *Kshara* possess qualities like Tikshna, Vilayan, Shodhana, Ropana, Shoshana, Stambhana, Lekhana, Krimighna. Vartikalpana is among Shasti Upkrama of the Vrana Chikitsa and specially indicated in the Samanya Chikitsa of Nadi vrana. These are meant for local application and thus help in expelling the accumulated dosha from the applied area. Nadi vrana is explained by Acharya Sushruta in Nidanasthana and Chikitsasthana. Nadivrana is of eight types. This disease manifest itself as a blind track leading down to the tissue ending blind internally and discharging seropurulent material associated with severe pain. Sinus is a blind tract leading from the surface down to the tissue. It is lined by granulation tissue which may be epithelialised. A sinus can occurs anywhere in the body. On the basis of sign and symptoms mandibular sinus can be correlated with Nadivrana.

Keywords: Apamargaksharavarti, Nadivrana, Mandibular sinus

INTRODUCTION

According to *shabdakalpadruma* the word *kshara* is derived from the root *kshara* means to melt away or to perish. *Kshara* means which destroys or cleans the devitalized tissue and to disintegrate the skin or other tissue. Acharya Sushruta mentioned *kshara* in the treatment of Nadi Vrana, Arbuda, Bhagandara etc.¹ *Kshara* is considered superior to all sur-
gical and para surgical measures because they perform the work of incision, puncture and scarification to relieve derangements of tridosha and uniformly affect the diseased part to which they are applied\(^2\). Description of Kshara has been mentioned in post-Vedic literature. Charaka Samhita only refers to Kshara, the detailed description of its preparation, classification, indication and contraindication are described by Acharya Sushruta in Sushruta Samhita\(^3\). Kshara is described as one among the Anusastras\(^4\) and Upayantras\(^5\). The word "Kshara" has different derivations. Kshara means ‘Shatana’ or destruction. It destroys unhealthy tissues. Derivation from Ksharanam means violence i.e. violence on unhealthy tissues. Acharya Sushruta has defined "TatraKsharanatKshananadva Kshara". The drug which has the characteristics of Kshanam or Ksharan literally means that which destroys fleshy mass either healthy or unhealthy. According to Acharya Charaka Kshara means which scrapes the abnormal tissue from its location and destroys it after dissolving it, because of its corrosive nature, classification of Kshara can be done by the origin of Kshara is of herbal, mineral and animal. Apamarga is acrid, bitter, thermogenic, expectorant, revulsive, carminative, depurative, antihelminthic and anti-inflammatory. It is used in painful inflammation, leprosy, dropsy, skin diseases, piles, boils, pruritis, and helminthiasis. Apamarga is having Katu, Tikta rasa, Laghu, Ruksha, Teekshnaguna and ushnaveerya and katu vipaka. It is also Kaphavathashamaka, Kaphapittasamshodhaka, useful in Vrana, Shoola, Arsha, Krimi, Raktavikara, Shota, Kusta, Charmaroga\(^6\). In this present case study, Nadi Vrana or Aganthuja Nadi Vrana is taken. In the contemporary sciences, there are several methods to treat sinus (Nadi Vrana) but the recurrence rate is more, in this regard Acharya Sushruta has given elaborative description regarding treatment of Nadi Vrana that is Nirharana of shalya followed by Margashodhana and Ropana. In the indication of ksharaAcharyaSushruta has included Nadi Vrana.

### Mandibular sinus:
It is chronic infective acquired condition where in there is infection of roots of one or both lower incisor teeth forming root abscess which eventually tracks down between two halves of lower jaw in the midline presenting as discharging sinus on the point of chin at midline. Usually it is painless discharging sinus, often incisor infection may be revealed. osteomyelitis of mandible is possible complication due to this.\(^7\)

### Case report:
Name of Patient -xyz  
OPD no. -14456  
Age - 15 years  
Gender - Male  
Nationality - Indian  
State - Gujrath  
District - Kheda  
Appearance - thin & tall  
Occupation - student  
Socio-economic status - middle class

### Chief complaints:
Non-healing wound at chin region since 6 months  
Watery and yellowish pus discharge from wound – on & off
Pain at the site of the wound – on & off
Fever - sometimes

Past history:
No relevant history contributing to the current condition of the patient.
No history of Diabetes mellitus / Hypertension / Bronchial Asthma / Any major illness / Any Surgery

On examination:
Inspection: There is an external opening at the lower part of chin
Pus discharge: watery and yellowish pus discharge from the wound
Palpation: Pain and tenderness at chin region
Probing: 2 cm track found, internal opening not seen

Observation for the present case:

<table>
<thead>
<tr>
<th>Sign and Symptoms</th>
<th>Before Treatment</th>
<th>After Treatment</th>
<th>% Relief</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain</td>
<td>+++</td>
<td>No pain</td>
<td>100%</td>
</tr>
<tr>
<td>Length of track with external opening</td>
<td>2 cm</td>
<td>Track is healed external opening closed</td>
<td>100%</td>
</tr>
<tr>
<td>Pus discharge (watery and yellowish)</td>
<td>++</td>
<td>No discharge</td>
<td>100%</td>
</tr>
<tr>
<td>Tenderness</td>
<td>++</td>
<td>No tenderness</td>
<td>100%</td>
</tr>
</tbody>
</table>

Diagnosis:
As per contemporary science it was pre-diagnosed as a mandibular sinus. As per Ayurveda classical text it can be co-related with Nadivrana.

Vartiupkarma:
Duration of treatment: 45 days including follow up.

Prakshalan karma: with PanchvalakalKwath (alternate day)
Vartiupkarma: by Apamargksharvarti (apamargkshar +vat ksheer+svarjikakshar (as binding agents)-(alternate day)
Oral medication: Triphlaguglu (1 tds, 500 mg) everyday with shukoushnajala as Anupana
**Panchvalkalakwatha:** PanchavalkalaKvatha is a simple preparation. The ingredients are Vata (Ficus bengalesis Linn.), Udumbara (Ficusglomerata Roxb.), Ashvatha (Ficus religiosa Linn.), Parisha (Thespesiapopulnea Soland ex correa) and Plaksha (Ficus infectoria Roxb.) These are available throughout India. The dried bark of the drugs Vata, Udumbara, Ashvatha, Parisha, Plaksha are taken in equal quantity. They are pounded and Kwatha-Choorna (coarse power) is prepared. For 50 gm. KwathaChoorna 800 ml of water (1:16) is added. Then they are boiled on a mild fire until it becomes 1/4th of its original quantity. Then it is removed from the fire and filter.

**DISCUSSION**

Nadi Vrana is one of the troublesome diseases that are encountered in day today surgical practice that do not respond to the medical treatment at all, except surgical intervention. Even this surgical management is also not completely curative due to the recurrence rate is high. Nadi Vrana is compared with mandibular sinus.

The causative factors (Nidana) of Nadi Vrana are when a Vaidya neglects the matured Vrana Shopha as immature one without doing the Sastra Karma. The pus which is accumulated in a vrana if it is not drained properly leads to the formation of Nadi Vran. Kshara used externally it has cleansing, heating, absorbent, and scraping. All these properties help in curing the wound.

**Probable mode of action of Kshara:** After application on Nadi Vrana it coagulates the protein intern does the necrosis of the tissue with obliteration of slough hence rate of recurrence is negligible.

In apamarga presence of Chemical constituents like alkaloids, glycosides, saponins etc are active principles of the plant responsible for therapeutic action. Saponin extract are inhibitory to the growth of the gram positive bacteria and alkaloids displays good antimicrobial activity against test microorganism. Apamarga having pharmacological activities like antimicrobial, antibiotic, antifungal, anti-implantation, purgative, vasodilator which are useful for the killing the micro bacteria of the wound and heals the wound. Karma of apamargakshara is Shothahara, Vedanastapanas, Lekhana, Vishagna, Deepana, Pachana, Pittasaraka, Raktavardaka, Kaphanisaraka, Kushtagna, Kandugna

As per Acharya Sushruta, kshara is having qualities like Tridoshaghna – because of different type of chemical constitutions they can
pacify all the humours, Saumyata - owing to their white colour. Dahana-owing to its burning nature, Pachana because of its digestive capability, Darana – since drug of agneya nature, katuka -due to its pungent taste, Ushna- because of heat producing nature, Tikshna-due to its irritant nature, Vilayan- because of its liquefaction properties, Shodhana-because of its cleansing properties, Ropana- improve healing (granulation), Shoshana-absorption, Lekhna- scraping properties, Krimighna –due to its antimicrobial properties. It normalizes ama, kapha, visha, medadhatu. Mode of action of Varti: To establish the probable mode of action of ksharvarti, various clinical trials and studies have been carried out. Kshara creates strangulation of blood vessels and tissue which causes the necrosis of the body of any swelling. Kshara invades into the cells of lesion till engorged tissue destruction occurs by its ksharanaguna. Vatakshira is being proteolytic in nature; dissolve the tissue at its base.

CONCLUSION

Wound healing process is a normal phenomenon starts right from the surgery and continues in sequential manner till the formation of healing scar. The application of Ksharavarti helped after the excision by: Lekhana of pits in the surrounding tissue of the sinus, Avoids the formation of unhealthy granulation tissue and Helps in healing of the wound from the base. It starts reducing complaints of patient within 10 days. Wound at the chin region completely healed within 25 days and the complaints of pain, pus discharge, tenderness reduced gradually. No any adverse effect noted during treatment and patients having relief due to Ayurvedic medicine and effect of ksharavarti as chhedan, bhedana and lekhana property.pt. Advised for regular follow up to know whether effect of treatment is temporary or permanent. All medicines and treatment and dressing stopped after complete healing of the wound.

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