

**ROLE OF TILA-KALKA LEPA IN DUSHTA-VRANA: A CASE STUDY****Dr. Hema Goswami<sup>\*1</sup> and Dr. Ajay Kumar Gupta<sup>2</sup>**

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**ABSTRACT**

Article Received on  
15 August 2020,

Revised on 05 Sept. 2020,  
Accepted on 26 Sept. 2020,

DOI: 10.20959/wjpr202012-18535

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*Dushta-Vrana* is frequently encountered problem of the current population, occurring commonly as a complication of trauma and various other pathological factors. In present scenario, *Vrana* can be very well correlated with wound. Wounds are one of the serious ailments which health-care professionals are facing today. Also in today's busy life schedule, often one neglects his minor injuries which are eventually converted into a major hazard or complications. "The destruction or break or rupture or discontinuity of body tissue or part of body is called *Vrana*, which after healing leaves behind a scar (*Vrana-vastu*) and this scar persist as a mark of *Vrana* for the whole life of an individual."<sup>[1]</sup> Wound healing is a mechanism where the body attempts to restore the integrity of the injured part. Several factors affect the

normal process of wound healing such as the site of wound, contamination, local factors like vascular insufficiency, systemic factors such as malnutrition, diseases like diabetes mellitus, immune deficiency, medications like steroid, etc. Today the world is moving fast towards *Ayurveda* for different health related problems. *Acharya Sushruta* has mentioned *Sixty Upakramas* for the management of *Vrana*, and *Lepa* (local application) is one among them.<sup>[2]</sup> Local application of *Tila-kalka Lepa* described by *Acharya Sushruta* is one of the best classical modality for wound healing<sup>[3]</sup> and it possesses *Shodhna* and *Ropana* properties. A case report of 66 years aged gentleman, who presented with complaint of long standing gangrenous blackish discoloured wound on left Big toe associated with pain, slough, foul smell, oedema and purulent discharge has been presented here.

**KEYWORDS:** *Dushta-Vrana, Sixty Upakramas, Tila-kalka Lepa.*

## INTRODUCTION

*Vrana* is probably the first surgical problem faced ever since the origin of the human being. It is worth mentioning that the first wound was probably of the cut umbilical cord when a baby was delivered. Moreover, the frequency of injuries is quite more common as compared to other ailments. Intensive study of *Shalya Chikitsa* brings out very clearly that *Vrana* is the most significant surgical entity and its knowledge is extremely important for skill execution by a surgeon. *Acharya Sushruta* has described *Shashthi-Upkramas* for complete wound management from of its manifestation to rehabilitation of site of wound.

## CASE STUDY

**Type of study** – Observational single case design.

**Study centre** – Rishikul Govt. P.G Ayurvedic College & Hospital, U.A.U, Haridwar, (Uttarakhand State) INDIA.

According to the patient he was asymptomatic before 21 years, then one day he noticed lethargyness, along with generalised weakness in the body, which he thought may be due to irregular dietary habits. Then, he consulted a physician and was advised for routine blood investigations in which he was diagnosed to be suffering from Diabetes Mellitus. Thereafter, he started his treatment for Diabetes Mellitus from a private hospital at Roorkee. In 2008, he noticed to be suffering from anorexia, generalised weakness, blood with sputum during coughing, evening rise temperature, for which he consulted a physician and was advised for chest X-ray, some blood investigations and sputum for AFB in which he was diagnosed with Pulmonary Koch's and was prescribed Anti-Tubercular Treatment (ATT) for six months, then after six months he was feeling much better, but in the year 2011 he noticed blood along with sputum again during coughing, and for this he consulted to Vedanta hospital where they advised him admission for some investigations. After admission, consultant prescribed some parenteral medicines (Intra-muscular) for him, but by mistake next shift medical staff gave injection by Intra-venous route following which some reaction occurred. After 30 seconds, he felt burning sensation in whole abdomen, severe bursting sensation in left side of the chest along blood in vomiting. The medical staff controlled his bleeding by some emergency treatment, and next day they advised him X-ray Chest and CT scan. After these investigations, they started ATT which was continued for one year and the patient was discharged. Reviewing after one year, the doctor again continued ATT for another six

months. Then he consulted Indresh hospital Dehradun but was not satisfied so he consulted to Meerut and got satisfied. In 2016, he felt pain in calf muscle so he consulted to Dr. Sanjeev Mittal. Dr Sanjeev Mittal diagnosed some cardiac pathology along with hypertension but he did not continue his treatment. In 2017, he consulted in Vedanta hospital again and they advised him for radial angiography and ECHO. After these investigations, they advised him for Bypass surgery but he refused for the surgery and came back home. There he met with an 'Amway' company representative who advised him for omega 3, natural C, Co- enzyme, etc. Then he took these medicines only, and felt somewhat better. Suddenly, in September 2017, he was affected by right side parasis attack for which he was consulted to Dr. Gotti. Dr Gotti started hypertension medicine as his B.P was 200/120 mmHg, because he had discontinued his hypertension medicine in 2016 which were prescribed by Dr. Sanjeev Mittal. After some time in 2018 he consulted to Fortis hospital Delhi due to sudden onset of heaviness in right hand one day back. On investigation, echocardiography revealed moderate LVH and akinetic posterior, inferior, lateral wall basal IVS, LVEF 35%. Carotid artery Doppler revealed bilateral carotid artery stenosis. MRI brain revealed acute infract in left MCA territory. Neurology consultation was taken; he was being managed with anti-platelets, statins and other supportive medications. He was advised for MR angiography of brain or extra and intracranial vessels but he and his relatives were not willing for treatment in Fortis Escorts heart institute Delhi and want to be discharged so he was discharged against medical advice (LAMA), and then consulted to Dr. Sanjeev Mittal again. Then, for a second opinion, he consulted in Rajiv Gandhi hospital; they continued his old treatment given by Dr. Sanjeev Mittal for 20 days. After four days, he again consulted Dr. Sanjeev Mittal. Dr. Sanjeev Mittal continued his treatment for another 6 months. During this period, after blood investigations, he come to know about his moderate kidney dysfunction and hypothyroidism and then took medicines for these issues. Then after 3 weeks, he noticed gangrenous changes in left Big toe and consulted to Dr. Sanjeev Agarwal at Bhagwati nursing home. Dr. Sanjeev Agarwal advised him for amputation but he refused and came to Rishikul Ayurvedic College and hospital, *Shalya* OPD, Haridwar seeking better management.

## LOCAL EXAMINATION

*Dushta-Vrana* (Non-healing wound) was present on planter aspect of left Big toe which was of about 4cm×3.5cm size, black in colour, irregular shape, extremely tender, gross indurate margins, with copious foul purulent discharge and sloughing. Involvement of local lymph nodes was not present.

## MATERIAL AND METHODS

In this case study, *Tila-Kalka Lepa* was used for local application over *Dushta-Vrana*.

### CONTENTS OF *TILA-KALKA LEPA* – *Tila* and *Madhu*

#### Management

*Dushta-Vrana* was irrigated with freshly prepared lukewarm *Nirgundi kwatha* once daily, under all aseptic precautions. Then, an appropriate amount of *Tila-Kalka Lepa* was locally applied over the site of *Vrana* and covered with sterile gauze. After this, Dressing was done with sterile gauze and bandage. Dressing was done once daily in the similar manner. During treatment, the patient was advised to keep the limb elevated as far as possible. Dressing was done in similar manner till two months. After two months, complete healing was achieved and patient was advised for follow up in every 15 days for a period of two months. During the follow up period, no sign and symptom of recurrence were observed. *Vrana* site was absolutely normal.



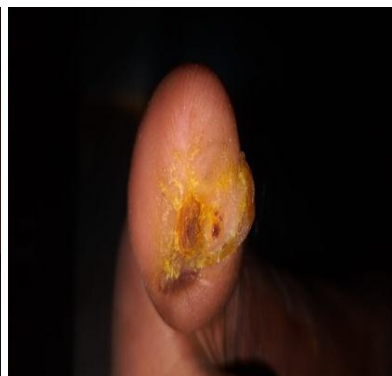
Before Treatment



Application of *Tila-Kalka Lepa*



During Treatment



After Treatment

## DISCUSSION

**Effect of *Vrana Vedana*** – Pain and tenderness was completely reduced at the end of treatment. Pain present at the beginning was reduced at the 2<sup>nd</sup> week. This may be due to local action of lukewarm *Nirgundi kwatha Prakshalana*.

**Effect on *Vrana Varna*** – In the beginning *Vrana Varna* was blackish in colour. At the end of 1st week, colour was changed and converted into pinkish *Varna*. Slough was completely reduced and floor got covered with healing granulation tissue. This is due to *Shodhana* property of the formulation.

**Effect on *Vrana Srava*** – In the beginning, profuse discharge was present. No discharge was present at the end of 2<sup>nd</sup> week. Once slight serous discharge was noticed, this is may be due to *Shodhana* property of *Tila-Kalka Lepa*.

**Effect on *Vrana Gandha*** – Unpleasant foul smell was present at the beginning of treatment which was completely reduced at the end of 2<sup>nd</sup> week. *Shodhana* property of the formulation may be the reason.

**Effect on *Vrana Akriti*** / – In the beginning *Vrana* have *Visham Akriti* (Irregular shape) with approximate dimension 4cm×3.5cm which gradually reduced as healing progressed. At the end of the treatment *Vrana* was completely healed with minimal scar. This was due to *Vrana Shodhana* and *Ropana* properties of *Tila-Kalka Lepa*.

### **Probable Mode of Action of *Nirgundi Kwath Prakshalana* and local application of *Tila-Kalka Lepa***

*Nirgundi* has *katu rasa*, *laghu*, *ruksha guna*. It acts as *Lekhna*, *Chedana* and *Shoshana*. It has *Vrana Ropana*, *Krimighna karma* which helps in *Shodhana* and *Ropana* of *Vrana*.<sup>[4]</sup> *Nirgundi* also has anti-microbial (due to Essential oil of *Vitex Negundo* leaves), anti-bacterial & Cytotoxic activity (due to Methanolic, Petroleum ether & Carbon tetrachloride leaf extracts) which helps to reduce profuse *Vrana Srava* & unpleasant *Vrana Gandha*, anti-inflammatory (due to Carrageenin) and analgesic effect (due to Leaf extracts)<sup>[5]</sup> helps in relieving *Vrana Vedana*. Its *Shodhana karma* helps in quick healing and contraction of *Vrana*.

*Tila* has *Kashaya*, *Tikta rasa*.<sup>[6]</sup> It acts as *Lekhana* and *Chedana* of *Vrana*. *Tila* has anti-inflammatory & analgesic (due to Sesame oil and Sesamin) property which helps in relieving

*Vrana Vedana*, anti-oxidant (due to Sesame) action is helpful in reducing oxidative damage of *Vrana*, anti-microbial (due to Sesame) property helps to reduce profuse *Vrana Srava* & unpleasant *Vrana Gandha* and promote wound healing (due to Sesame)<sup>[7]</sup>, by *Vrana Shodhana* and *Ropana*.

*Madhu* has *Kashaya anurasa*, *Ruksha*, *Laghu guna*<sup>[8]</sup>, which causes *Lekhana*, *Chedana* and *Shodhana* of *Vrana*. It also has *Lekhana*, *Vrana Shodhna*, *Vrana Ropana*, *Krimighna*, anti-bacterial (due to Hydrogen peroxide), anti-microbial (due to Pinocembrin, Terpenes, Benzyl alcohol, 3,5-Dimethoxy -4- Hydroxybenzoic acid etc.) properties which helps to reduce profuse *Vrana Srava* & unpleasant *Vrana Gandha*, anti-oxidant property helps to reduce oxidative damage of *Vrana*<sup>[9]</sup>, which ultimately helps in healing (*Vrana Ropana*).

## CONCLUSION

- This case study shows that local application of *Tila-Kalka Lepa* was found to be very effective and curative in the management of *Dushta-Vrana*.
- No adverse drug reaction or side effects were reported in this case, so the formulation in the form of *Lepa* is absolutely safe.
- Thus, it can be safely used as a curative herbal approach for the management of *Dushta-Vrana*.

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