EFFICACY OF LOCAL APPLICATION OF KHANDUCHAKKA (EHRETIALLAEVISROXB) GHRITA IN DUSHTAVRANA - A CASE REPORT

Shailesh Dhenge¹ Kiran Khandare²
¹PG Scholar, ²Guide and HOD, Department of Shalya Tantra; Mahatma Gandhi Ayurved College Hospital & Research Centre (Salod). Maharashtra, India

ABSTRACT

Various medicinal plants have been described in traditional medicinal practice. Traditionally Khanduchakka (Ehretialaevis) is also commonly used plant in rural area of Wardha district for the treatment of chronic ulcers and fractures in animals. Khanduchakka (Ehretialaevis) is a medicinally important plant belonging to family Boraginaceae. Several factors affect the normal process of wound healing. In the present study, an attempt was made to develop simple and effective treatment modality for wounds that are not responding to conventional treatment modalities by using Khanduchakkaghrita (Medicated ghee prepared with leaves of Khanduchakka (Ehretialaevis)) as external wound dressing material. A case of 50 year – old man, who presented with complaints of Dushta-Vrana (non healing wound) on the dorsum of the right foot, was treated by the application of Khanduchakkaghrita. The result of the treatment is shown in this case. This case study explains the role of khanduchakkaghrita in Dushtavrana.

Key words: Dushtavrana, Khanduchakka ghrita

INTRODUCTION

The word Vrana is derived from DhatuVru-vrunoti,vrunute. Vrut-varyat-khadayat-aacchadayat, it means to cover, to conceal and to envelope respectively. A pathology in which there is consumption (destruction) of body tissue and formation of scar after healing that remains for a lifetime is called as a Vrana. Definition of Vrana according to Sushruta is very broad. Formations of scar after tissue destruction can be either due to extrinsic factor (wound) or it can be due to intrinsic aetiology (ulcer). As the scar of wound never disappears even after complete healing and its imprint persisting life long, it is called as Vrana. As it causes destruction of the tissue or damage of body part, so it is termed as Vrana [1].

Dushtavrana: Sites of Vrana are termed as Vranavastu or Vranaadhishtana in Ayurveda. These are mainly on the basis of involvement of body structures which are categorized mainly under eight sites viz- Twaka (skin), Mamsa (muscle), Sira (vessels), Snayu (ligaments), Asthi (bones), Sandhi (joints), Koshta (abdominal and thoracic viscera), and Marma (some vital parts of the body like brain) [2]. Vrana which has foul smell, continuously flowing putrefied pus along with blood, with cavity, since long time and has smell etc, Vranalakshanas are high in intensity, and which is almost opposite to ShuddhaVrana is Dushta-Vrana. Samrutha-Narrow mouthed, Kathina-
Shaileshdhenge & Kiran Khandare: Efficacy Of Local Application Of Khanduchakka (Ehretialaevisroxb) Ghrita In Dushtavrana - A Case Report

Hard, Avasanna- Depressed, Vedonarvan- Severe pain, Vivruta-Wide mouthed, Ushna-Hot, Daha-Burning sensation at the site, Paka–Suppuration, Raga- Redness, Puyasravya- Discharging pus, Manojnadarshana- With ugly sight, Kandu-Itching, Shopha- Swelling, Pidaka-With boils, Mrudu- Soft, Bhairava- Frightful, Putimamsasirasnayu- Full of pus, muscles, vessels, ligament these are the symptoms of Dushtavrana[3,4].

Stages of Vrana
Shuddhaawastha (stage of granulation tissue)  
Dushtaawastha (stage of inflammation)
Ruhyaamanaawastha (stage of maturation and remodeling)
Rudhaawastha (stage of contraction)

1) ShuddhaVrana: The Vrana that is free from three vitiated doshas or any complications, has blackish-white margins due to pure blood supply, granulation tissue at surface level, and without any pain or discharge is said to be ShuddhaVrana[5].

2) DushtaVrana: The word Dushta literally means bad, wicked, offensive, and culpable. Vrana in which vitiation of all doshas causes chronicity of Vrana presenting with features like excessive exudates, foul smell, signs of inflammation etc. In other words, Vrana not showing features of ShuddhaVrana (clean wound) is called as DushtaVrana[6].

3) RuhyaamanaVrana: The Vrana with pigeon colored (grey) margin without any exudates and showing partial layer of skin epithelium (shveta called as charmacheli or chipitika) are called as RuhyaamanaVrana[7].

4) RudhaVrana: The Vrana whose floor has healed completely, which is not indurated or swollen or painful, and is of same color and level of skin is said to be RudhaVrana[8]. While there are few Indian studies on the epidemiology of chronic wounds, one study estimated the prevalence at 4.5 per 1000 population[9].

Khanducchaka plant

Material and Method

Material:
In Ayurvedic literature, uses of this plant are for Prameha (Diabetics) and Vishaghna (Antivenom) (Su.Chi 11/10, Su.Kal.5/46, and Cha.Chi.23/66) [10, 11, and 12]

Khanduchakka (Ehretialaevis)
2. Species. AsperaWilld, E.obtusifoliaHochst .ex DC
3. Family – Boraginaceous (Borage family)
4. Habitat– Throughout India, also grown along roadsides.

Siddha/Tamil _ Addula.  
Folk name _ Chamror (Punjab). Datarangi (Maharashtra.) khanduchakka (Wardha)

Chemical composition: Phenolic acids, Flavonoids, Benzoquinones, Cyanogenetic Glycosides, fatty acids, Benzoquinones -34 1, 4-naphthoquinone lewisone, BauerenolBauere-nol acetate, α-amyrin, Betulin, Lupeol, Betuliniacacid[13].

Standardization, authentication of the Khanduchakkapatra will be done by the department of dravyaguna MGACH&RC.

Preparation of drugs: Fresh leaves of Plants were collected from Pavanar village near to Wardha. Ghrita was prepared in Rasa Shala of MGACH&RC under supervision of Subject expert[14].
Khanduchaka ghrita

Case History

50 years old male residence of Dahegaon village, District Wardha was attended Shalya OPD on 16/07/2015 presenting complaints - non-healing wound over the dorsum of left foot since 2 months. He took treatment from local Doctor but not cured. Taking past history for wound patient told that he was known case of varicose veins on both legs for that he was on seating’s of jalouka vacharan after some days on the bite of jalouka wound arised on left lower limb. So he came to M.G.A.C.H&RC, Salod. No history of DM, HTN or any other major disorder.

On examination

Position of the wound - over the dorsum of the left foot

Inspection – Wound size about – 2.5 x 2.5 cm
Shape – Irregular
Position - over the dorsum of left foot
Floor – Covered with slough
Margins – Oedematous
Discharge – Seropurulent with foul smell
Bleeding - Is wound bleeds on touch? – No
Edge - slopping
Dorsalis pedis artery pulsation present
Surrounding skin is eczematous and pigmented

Presence of varicose vein on both legs.
Tenderness was also present with surrounding indurations and local rise in temperature. Local lymph nodes were not involved.

Investigations

HIV – Non reactive
HBsAg - Non reactive
Haematological investigations: TLC-5400 /cumm
DLC – Neutrophils- 83%
- Lymphocytes –13%
- Eosinophil -03%
- Monocytes -01%
- Hb%–12.3 gm
- ESR- 13 mm/hr.
- Blood sugar random- 116 mg/dl

Color Doppler Venous Lower Limb LT – Lower limb venous Doppler study reveals Varicosity of great and saphenous vein in left lower limb with sapheno-femoral junction incompetency.

Diagnosis - Dushtavrana

Treatment

Every morning the wound was clean by normal saline. After cleaning, Khanduchakka ghrita was locally applied in adequate quantity with the help of spatula. Dressing was done with the sterile gauze and loose bandage. All these procedures were performed while wearing a sterile glove. Daily assessment of vrana will be done.

Observation

Colour of wound changed after 5 days. Discharge reduced after 10 days. Slough was reduced gradually. The clinical features of dushtavrana were improved and the wound get healed gradually at the end of 3rd week leaving only a minimal scar. With a follow up for a period of 2 months, the patient has shown no signs of recurrence.
DISCUSSION

Effect of treatment on sraava: The vitiated pitta is responsible for pakakriya, which by vitiating the rakta forms pooya. The khanduchakkaghrita helps in elimination of vitiated pitta from the body and thus controls upon the pakakriya, which results in the subsidence of sraava. Absence of sraava (pus) suggestive of the wound is devoid of infection.

Effect of treatment on Granulation tissue: Khanduchakkaghrita helps in removing the impurities which results in formation of healthy granulation tissue.

Effect of treatment on Size of the wound: The Khanduchakkaghrita undertaken has helped for proper perfusion (Circulation) to the wound and hence accelerated the wound healing process. Thus it resulted in the reduction of size of the dushtavrana.

CONCLUSION

From the above Discussion it can be concluded that Khanduchakkaghrita acts through systemic correction and regulation of Doshas, which are responsible for the development of Dushtavrana. Khanduchakkaghrita accelerates the wound healing process thus it resulted in the reduction of size of the dushtavrana.
REFERENCES

- Sharma A, SushrutaSamhita, Sutra sthana, 22 chapter, Shloka.7, Varanasi: Chaukhambha Surabharatiprakashan Reprint 2010 P.192
- Deo A D, Pande A B , and Bhagat - In-Vitroantioxidative activity of the phenolic and Flavanoid contents of the leaves of medicinal plant – Eheretia levis
Shailesh Dhenge & Kiran Khandare: Efficacy Of Local Application Of Khanduchakka (Ehretialaevisroxb) Ghrita In Dushtavrana - A Case Report

CORRESPONDING AUTHOR
Shailesh Dhenge
PG Scholar,
Department of ShalyaTantra
Mahatma Gandhi Ayurved College Hospital & Research Centre (Salod). Maharashtra
Email: shaileshdhenge1@gmail.com

Source of Support: Nil
Conflict of Interest: None Declared