

Mridu Nimba Kshara Avachurnana in the Management of Dushtavrana (Chronic Non-Healing Wound): A Case Report

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ABSTRACT

Introduction – A chronic wound is one that does not heal in a predictable sequence of stages. Ayurveda has given a unique treatment modality i.e., avachurnana is one among them and it serves the purpose of Vrana Sodhana (Wound debridement/cleansing).

Case Report – A 80-year-old male presented with complaints of non-healing wound on the left foot for 2 months with history of blunt trauma, received symptomatic treatment from local doctor and got quite relief but no history of taking rest or regular dressings which aggravated the symptoms, on examination revealed ulcer 5×3 cm in size on posterolateral aspect of the left foot region. Chronic wound management is still a difficult task and even Acharya Sushruta explained the concept of avachurnana and also

indicated for the treatment of Dushtavrana (Chronic wound). In this case will review wound healing physiology in 3 stages and discuss the current approach for treating a wound.

Diagnosis – Case was diagnosed as Chronic wound as per contemporary science and Dushtavrana as per Ayurveda.

Intervention – The case was managed by kshara avachurnana and jatyadi ghrita as an external application.

Kaishora Guggulu, triphala guggulu, gandhaka rasayana and Manjishtadi Kashaya administered internally.

Outcome - The wound showed marked improvement within 28 days and complete healing was achieved in 2 months.

Conclusion - The adopted Ayurveda treatment i.e., kshara avachurnana has given promising results in the management of Dushtavrana (Chronic wound).

Keywords: Ayurveda, Dushtavrana, avachurnana, kshara, mridu nimba kshara, Vrana Shodhana, Vrana

Ropana, Shashtiupakrama, Chronic Wound, Wound Healing

INTRODUCTION

Acharya Sushruta describes Vrana (Wound) as Destruction or discontinuity of the body tissue. When Vrana (Wound) fails to heal within time or which is difficult to heal, the dosha invades and does the dushana and hence called as Dushtavrana (Chronic Wound). Dushtavrana (Chronic Wound) is the one in which there is localization of three Doshas, which has a bad odour, has abnormal colour, with profuse discharge, intense pain and takes a long period to heal. ¹ A Chronic wound, on the other hand, is the wound that is persistent and doesn't heal in a regular sequence of stages within a predictable time frame. They are typically prone to suppuration by microorganisms and remain in the inflammatory stage for an extended period of time. ²

In India, a study estimated a prevalence rate of chronic wounds in the community as 4.5 per 1000 population where as that of acute wounds was nearly doubled at 10.5 per 1000 population. ³ Many chronic wounds, particularly in rural regions, do not heal due to insufficient wound care, i.e., exposure to infection and prolonging of the inflammatory phase play a major role in delaying the healing process, resulting in the wound being covered with slough/necrotic tissue and purulent discharge. The ultimate goal of any surgeon is to remove all necrotic tissue and wound exudates for the purpose of wound closure or to facilitate the wound healing process by generating favorable conditions that allow the wound to heal properly. Management of Chronic wound includes surgical debridement, irrigation and wound

cleansing, surgical debridement is often painful and the entire necrotic tissue cannot be removed at once and wound cleansing agents have been shown to prolong wound healing. ⁴

Sushruta has described Shashtiupakramas (60 measures) for the comprehensive management of Vrana (Wound), which includes local as well as the systematic use of different drugs and treatment modalities under a dedicated chapter. Dushtavrana (Chronic wound) is a long-standing ulcer where removing debris enabling drug to reach healthy tissue is More important. ⁵

Avachurnana based on kshara formulation can be used as a para surgical procedure for the management of Dushtavrana (Chronic wound). A medicine (alkaline in nature) derived from a combination of various herbs is applied over the Chronic wound which serves the purpose of Vrana Shodhana (Woundcleansing/debridement).

Here, we are reporting a case which was treated with the application of mridu nimba kshara avachurnana and it has a given promising result.

CASE REPORT

A 80-year-old male non-diabetic, controlled-hypertensive patient visited our hospital with the complaint of non-healing wound on the posterolateral aspect of left foot region in the past 2 months associated with mild purulent discharge. The case was treated at shri siddhasrudha charitable attached to N K J Ayurvedic Medical College bidar, Karnataka, (OPD No. 260127746 and IPD No. 2601108).

Regarding aetiology there was a history of blunt trauma, since then he developed an ulcer over the posterolateral aspect of left foot. Patient had consulted doctor and received symptomatic treatment and got quite relief from the symptoms but patient did not follow adequate rest and immobilization which aggravated the symptoms like the wound increased in size for 1 month and is constant since then. Past history and family history were not contributory.

Clinical Findings

General examination revealed that the patient was moderately built and vitals were normal. Systemic examination i.e., Central Nervous System, Cardiovascular System and Respiratory System showed normal findings. Local examination showed a large ulcer, 5×3 cm in size, situated on posterolateral aspect of left foot region (Fig.1). It had well defined, irregular margin and mildly inflamed edge all along the circumference. Floor showed pus discharge, yellowish slough and was covered by pale unhealthy granulation tissue. Surrounding skin was hyperpigmented, indurated and mildly oedematous, suggesting chronic inflammatory changes. There was no local rise of temperature, redness, cyanosis, dilated veins or scar mark. The edge was firm. Granulation tissue was non-tender and did not bleed on touch. There was no enlargement of lymph nodes on both the sides. The pulsations of the dorsalis pedis, posterior tibial, popliteal and femoral arteries on both sides were well felt and equal and the movement of the ankle joint was abnormal.

Timeline

In January 2026 patient had a history of blunt trauma, since then he developed a wound over the left foot. Patient had consulted doctor and received treatment and got quite relief from the symptoms but there was no history of taking rest, immobilization which aggravated the symptoms like the wound increased in size for 1 month and is constant since then. In March 2026, patient visited Shri Siddhasrudha Charitable attached to N K J Ayurvedic Medical College Bidar, Karnataka here he was treated with external application and internal medications.

Diagnostic Assessment

Blood investigation showed Hb% -9.7gm%; TLC - 10,900 cells/cum; RBS - 79.9mg/dl; PCV - 30.2; Platelet - 5.4 lakh/microlitre; RBC - 3.87 million/cu mm. (Fig.5)

Urine analysis showed ph-1-2 cells/hpf; epithelial cells: 2-3 cells/hpf (fig.6)

Therapeutic Intervention –

Avachurnana has explained by Acharya Sushruta as which involves dusting medicated powder on wound which are vitiated with meda, which are not deep and emitting bad smell⁶ under the heading of Shashtiupakrama (60 procedures) which was used as an external application for Vrana Shodhana (Wound Cleansing/debridement). Triphala guggulu, Gandhaka rasayana, Kaishora Guggulu and Manjishtadi

Kashaya was advised for internal administration as these cleanse the wound and promote healing (Table 1).

Preparation Of Mridu Nimba Kshara⁷

Properly dried drug (panchanga) is spread on the labelled land. It is cut into small pieces and heaped together and burnt into ash. One drone of ash is mixed with 6 drona of water and left undisturbed for whole night. The supernatant water is then filtered for 21 times with a piece of cloth. Obtained filtrate is treated on mild fire in an iron vessel while it is slowly stirred by a ladle. When it becomes clear, red, sharp and slimy, it is refiltered and again treated on mild fire until the filtrate evaporates and mridu kshara gets collected at the bottom of the vessel. It was taken out of the vessel and collected mridu

Kshara stored in an air tight container.

Procedure Of Application Of Nimba Kshara Avachurnana

Wound and its surrounding area was cleaned with Normal saline. Nimba kshara avachurnana was dusted on the wound bed covered with slough and necrotic tissue and wound dressing was done. Kshara avachurnana was done for a maximum of 28 days or until shuddha vrana laxana clearly appears whichever is earlier.

Assessment And Outcome

Wound was assessed on everyday advised to provide rest to the affected leg. The wound healed after 1month(Fig.4) with normal scar formation. Patient can walk without any difficulty and able to perform his routine activities.

Table 1: Therapeutic Intervention and Oral Medications

Plan of care	procedure	Duration(days)					
		1-3	4-6	7-9	10-12	13-15	16-30
Vrana shodhana	kshara avachurnana	✓	✓	✓	✓	✓	×
Vrana ropana	Jatyadi ghrta	×	×	×	×	×	✓
Triphala guggulu	1tab TID daily after food	✓	✓	✓	✓	✓	✓
Gandhaka rasayana	1tab BD daily after food	✓	✓	✓	✓	✓	✓
kaishore guggulu	2 tab twice daily after food	✓	✓	✓	✓	✓	✓



Fig.1 Before treatment



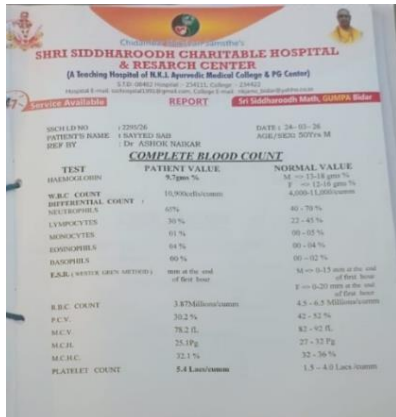
Fig.2 during treatment



Fig.3 during treatment

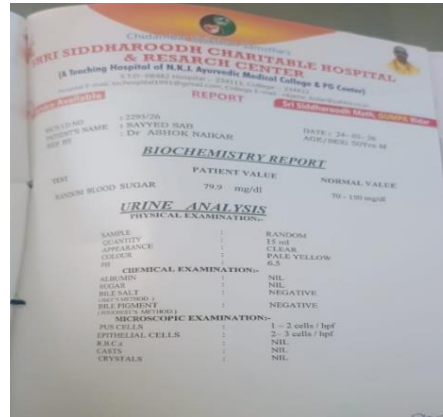


Fig.4 after treatment



TEST	PATIENT VALUE	NORMAL VALUE
HEMOGLOBIN	9.7gms %	M → 12-16 gms % F → 12-16 gms % 4.000-11.000gms
W.B.C COUNT	10,996/cmm	40 - 78 %
NEUTROPHILS	69%	22 - 43 %
LYMPHOCYTES	30%	50 - 65 %
MONOCYTES	01%	80 - 94 %
EOSINOPHILS	04%	90 - 92 %
BASOPHILS	00%	10 - 12 %
E.S.R. (WESTER GREN METHOD)	mm at the end of 1st hour	1 - 6 - 20 mm at the end of 1st hour 1.5 - 4.5 (Males/Females)
R.B.C COUNT	3.87Million/cmm	42 - 52 %
H.C.V.	30.2 %	82 - 92 %
M.C.V	78.2 fl.	27 - 32 Pg
M.C.H	25.1Pg	32 - 36 %
M.C.H.C	32.1 %	1.5 - 4.0 Lacs/cmm
PLATELET COUNT	5.4 Lacs/cmm	

Fig.5



TEST	PATIENT VALUE	NORMAL VALUE
RANDOM BLOOD SUGAR	79.9 mg/dl	70 - 150 mg/dl

URINE ANALYSIS	
PHYSICAL EXAMINATION-	
SAMPLE	RANDOM
QUANTITY	10 ml
APPEARANCE	CLEAR
COLOUR	PALE YELLOW
PH	6.5
CHEMICAL EXAMINATION-	
ALBUMIN	NIL
BILIRUBIN	NIL
BILE SALT	NIL
BILE PIGMENT	NEGATIVE
BILE ESTER	NEGATIVE
MICROSCOPIC EXAMINATION-	
PUR CELLS	1 - 2 cells / hpf
EPITHELIAL CELLS	2 - 3 cells / hpf
R.B.C.	NIL
CALES	NIL
CRYSTALS	NIL

Fig.6

DISCUSSION

Local treatment: can be understood in 3 stages of healing of an Ulcer:

1. Stage of separation of slough
2. Stage of formation of granulation tissue.
3. Stage of epithelialization

Stage of separation of slough: Debridement or the removal of non-viable tissue material, is a crucial concept in wound care. This can be accomplished through surgical or autolytic/enzymatic mechanisms; in either case, the goal is to expose healthy, well-perfused tissue that can proliferate and populate the wound bed via epithelial cell migration, rather than retaining necrotic debris that serves as fuel for infection and hinders wound healing.⁸ Kshara avachurnana with its unique properties acts as an instrumentation to achieve the basic treatment principle of Wound management i.e., debridement or cleansing by dissolving and removing slough/necrotic tissue efficiently.⁹ As being hygroscopic reduces an oedema of the granulation tissue. Kshara Avachurnana was continued only until appearance of Shuddha Vrana Lakshana and was stopped thereafter to avoid irritation of healthy granulation tissue. In the present case, Kshara Avachurnana mainly acted during the stage of slough separation by promoting Vrana Shodhana. The alkaline, lekhana and shodhana properties of Mridu Nimba Kshara helped in removing slough and unhealthy tissue from the wound bed, thereby facilitating healthy granulation tissue formation. Reduction in oedema and discharge also created a favourable environment for wound healing. After appearance of healthy granulation tissue, Jatyadi Ghrita supported Vrana Ropana by maintaining a moist wound environment and promoting epithelialization.

Stage of formation of granulation tissue: A moist occlusive dressing supports the inflammatory phase by generating an environment with low oxygen tension (thereby activating such factors as hypoxia-inducible factor-1) and also promotes and speed up the process of re-epithelialization.¹⁰

Stage of epithelialization: If an ulcer is more than 4-5cms in size, complete epithelialization may not occur without significance fibrosis and contracture. Hence, an aim was to initiate quick healing by increasing the rate of re-epithelialization with minimum fibrosis and better cosmetic as well as functional result.

The internal medications such as Triphala Guggulu, Kaishora Guggulu, Gandhaka Rasayana and Manjishtadi Kashaya further supported the healing process through their shodhana, anti-inflammatory and ropana properties. Proper wound cleansing, immobilization and regular dressing also contributed to

successful healing of the ulcer.

CONCLUSION

Although the optimal time and frequency for Kshara avachurnana remain unclear, since it is likely to vary widely depending on the type of wound being treated, but there is widespread agreement that it is an important part of wound management to facilitate the wound healing process by generating favorable conditions that allow the wound to heal properly. Kshara avachurnana with its special qualities work as an instrument to achieve the basic treatment principle of wound management, i.e., debridement or cleansing, by effectively dissolving and eliminating slough/necrotic tissue. The present case was successfully managed by kshara avachurnana along with internal medications and has shown promising result.

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