

A CASE STUDY OF NON-HEALING TRAUMATIC WOUND WITH AYURVEDA  
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## ABSTRACT

Ayurveda is an age old holistic science. Ayurveda is known to have a firm grip over chronic non-communicable diseases. Whereas, some aspects of it still needs re-establishment with research and evidence based results like in emergency cases. For non-communicable disorders it mainly focus on lifestyle modification, tailored dietary modifications along with medicinal remedies to balance the Doshas and treat Dhatu Paka. In this order, a diabetic patient with complain of sub-acute, non-healing traumatic wound came to the OPD. This case was dealt by considering all the aspects like dosha predominance, Vrana-awastha, Kleda Sanchaya, and for this case Hazral Yadud Bhasma was the DOC. We managed to heal the wound over the course of one month. With this example, promising results might be seen in similar cases.

**KEYWORDS:** Ahara, Dhatu Paka, Diabetes Mellitus, Hajral Yadud Bhasma, Non-healing wound.

## INTRODUCTION

Skin is the largest organ of the body. Skin along with its derivatives, forms the integumentary system. Ayurveda describes skin as "Santanika" i.e. a cream layer formed due to Pachana of Rakta Dhatu similarly the one that forms over milk after boiling.<sup>[1]</sup> Any disruption over the continuity of skin is considered as a wound. Now a days, Road Traffic accidents (RTA) have become a common cause of traumatic injuries, even death. Acharya Shushruta, in his text Shushrut Samhita mentions six different types of traumatic wound (Sadhyo-vrana) i.e. Chinna (incised wound), Bhinna (Lacerated wound), Viddha (Punctured wound), Kshata (Lacerated wound), Picchita (Contused wound), Ghrishta (Abrasion).<sup>[2]</sup> For the management of this injuries, 14 types of wound dressing techniques<sup>[3]</sup> along with 60 types of treatment modalities<sup>[4]</sup> have been mentioned.

## METHODOLOGY

Plan of study: Shri N.P.A. Government Ayurved College Raipur and single case study.

## Patient Details

A 56 years old male patient came with a traumatic non healing wound on his left leg. Patient was a known case of diabetes mellitus, taking oral hyperglycemic agents since 12 years. Patient took primary treatment from his nearby hospital, along with some analgesics and

antiseptic dressing. Patient had no history of drug or alcohol abuse. Regarding no improvement patient came to the OPD for further management.

## Clinical Findings

Patient fell from his bike while driving which lead to a wound over the MTP joint of great toe of left leg measuring 2.5x3.0 cm. Patient was having moderate pain, tenderness & difficulty in walking. Wound appeared to be pale, covered with debris, having clear margination around the wound. There was no oozing of blood, mild clear fluid discharge and negligible healthy granulation tissues. The vitals were within normal range and the temperature of local tissues was also normal.

## Diagnostic Assessment

All routine blood investigations were within normal range. The RBS was 196mg/dl. Patient was HIV & HbsAg Negative.

## Therapeutic Intervention

After the diagnostic assessment, the wound was cleaned using Panchvalkal Kwath. Coarse powder of the herbs was boiled with 8 times of water, which when reduced to 1/4th in quantity was filtered with a folded muslin cloth. The description of this Kwath is specially given for its anti-microbial, analgesic, anti-inflammatory and healing properties. The wound was washed with this Kwath

using a syringe, on every sitting. After the irrigation, wound was debrided & mopped with a sterile gauze piece. After this q.s. Hazral Yadud Bhasma was applied over the wound using gauze piece for easy application. Wound was covered with a sterile dry gauze piece and

packed as usual. Patient was already on OHAs, hence no other oral medications were prescribed as per need.

Every 4th day patient used to come for follow up and wound dressing.

**Table 1: Medications used for the patient.**

DRUG	DOSE	ROUTE
Panchavalkal Kwath	200ml (lukewarm)	Locally
Hazral Yadud Bhasma	50mg – 100mg	Locally
Diabetes Controller Powder By Ayuvichaar (Proprietary medicine)	1tsf (warm water on empty stomach in the morning)	Oral
Chandraprabha Shilajit Rasayana Vati	2 tab BD post meal	Oral

### Follow-up and Outcomes

Patient was scheduled to visit every 4<sup>th</sup> day for wound cleaning and dressing. After first dressing, on 4<sup>th</sup> day wound, dressing was opened. Kleda deposition over the wound was reduced, and the pain was also decreased. On second sitting, healthy granulation tissues developed and the pain was significantly relieved. On fourth sitting,

wound bed was completely red, covered with granulation tissues which tend to bleed during debridement. Margin of the wound was also narrowing. On 8<sup>th</sup> sitting wound was covered with thin pale skin layer, there were no secretion, wound was healed. Patient was able to walk around comfortably.

## RESULT

**Table 2**

DAY	OBSERVATION	INTERVENTION
1 <sup>st</sup> DAY (First Sitting)	Patient came to the OPD with traumatic wound over MTP joint of great toe of left leg. Wound size: 2.5" x 3"	Wound was properly assessed, washed with Betadine Solution + debrided. Followed by irrigation with Panchavalkal Kwath and application of Hazral Yadud Bhasma and packed with sterile gauze piece.
4 <sup>th</sup> DAY ( Second Sitting)	Significant reduction in Kleda over wound, mild pinkish granulation tissue seen. Localised pain was significantly reduced. Wound size: 2.1" x 2.5	Dressing was opened. Wound was again irrigated with Panchavalkal Kwath + debridement done. Hazral Yadud Bhasma was applied and wound was packed.
8 <sup>th</sup> DAY (Third Sitting)	The margins of the wound were contracting and healthy granulation tissues seen. Wound size: 2.1" x 2.4	Dressing was opened. Wound was again irrigated with Panchavalkal Kwath + debridement done. Hazral Yadud Bhasma was applied and wound was packed.
12 <sup>th</sup> DAY (Fourth Sitting)	Wound was covered with healthy granulation tissues which tend to bleed during debridement. Margins were narrowing significantly. Wound size: 1.3" x 1.9"	Dressing was opened. Wound was again irrigated with Panchavalkal Kwath + debridement done. Hazral Yadud Bhasma was applied and packed.
16 <sup>th</sup> DAY (Fifth Sitting)	Wound was significantly contracted with no secretion. Wound size: 1.2" x 1.4"	Dressing was opened. Wound was again irrigated with Panchavalkal Kwath + debridement done. Hazral Yadud Bhasma was applied and packed.
20 <sup>th</sup> DAY (Sixth Sitting)	Wound was significantly contracted with no secretion. Wound size: 1" x 1"	Dressing was opened. Wound was again irrigated with Panchavalkal Kwath + debridement done. Hazral Yadud Bhasma was applied and packed.
DAY 23 <sup>rd</sup> (Seventh Sitting)	Wound was significantly contracted with no secretion. Wound size: 0.3" x 0.4"	Dressing was opened. Wound was again irrigated with Panchavalkal Kwath + debridement done. Hazral Yadud Bhasma was applied and packed.
27 <sup>th</sup> DAY (eighth Sitting)	Wound was completely contracted, covered with pale pinkish thin layer of skin. There was no pain, tenderness or any other complains.	Area was irrigated & mopped. No further packing was needed. Patient was able to walk comfortably.

**Observation of the wound<sup>[5]</sup>**

Assessment parameter	First sitting	Third sitting	Fifth sitting	Seventh sitting	Eighth sitting
Itching	Moderate (+++)	Mild(++)	Mild(+)	NIL	NIL
Discharge	Moderate	Mild	NP	NIL	NIL
Foul smell	NP	NP	NP	NIL	NIL
Wound size	2.5" x 3"	2.1" x 2.4"	1.2" x 1.4"	0.3" x 0.4"	Covered by skin.
Vrana Varna	White pale granulation	Pale pink granulation	Red Granulation	Red granulation	Covered by skin.

DAY 1<sup>st</sup>DAY 4<sup>th</sup>DAY 8<sup>th</sup>DAY 12<sup>th</sup>DAY 6<sup>th</sup>DAY 20<sup>th</sup>DAY 23<sup>rd</sup>DAY 27<sup>th</sup>

## DISCUSSION

This case mainly addresses a traumatic injury on ventral surface of meta-tarso phalangeal joint of the great toe of the left leg. The patient was a K/C/O T2DM and was already taking OHAs. Regarding the injury patient took some antibiotics and primary wound cleaning and dressing was done at his nearby clinic. When patient arrived we approached the injury as 'Kapha Pradhan Tridosh Dushti' Janya Vrana. With this approach we chose Panchvalkal Kwath<sup>[6]</sup> for the irrigation of wound. Panchvalkal Kwath mainly consist of Vata (Ficus Bengalensis)<sup>[7]</sup>, Udumbara (Ficus Glomerata)<sup>[8]</sup>, Ashwatha (Ficus Religiosa)<sup>[9]</sup>, Plaksha (Ficus Lacor Buch)<sup>[10]</sup>, Parish (Thespesia Populnea).<sup>[11]</sup> These drugs come under the Mutra-Sangrahaniya Dravyas. They all possess sandhaniya, Shothahara (anti-inflammatory), Kusthagna (treats skin diseases), Vrana-Ropana (wound healing), Rakta Shodhak (blood purifying), Vedana-Sthapak (analgesic) and Mutra Sangrahaniya Properties.<sup>[12]</sup> Beside all those properties Mutra Sangrahaniya Property has been used because Mutra is mentioned as "Kleda Vahak" in body. When we saw the wound it was covered with Kleda, with no granulation tissues. Prameha Vyadhi is mainly Kleda Dushti Janya Vikar as per texts. With this principle, as Hazral Yadud Bhasma has been mentioned under Mutravaha Sansthanagata Vyadhi, this Bhasma was chosen for dressing of wound to pacify the Kleda and the Panchvalkala Kwath simultaneously pacified the Tridoshas. On first sitting previous dressing was opened. Wound was irrigated with Betadine Solution and debrided, followed by irrigation with Panchvalkal Kwath, packed with Hazral Yadud Bhasma.<sup>[13]</sup> After first sitting, when wound was opened on 4th day, little pinkish granulation was seen. The same procedure was followed for seven sitting, every 4th day each. On the 8th sitting wound healed up to the skin surface level. Pain and all the symptoms alleviated and patient was happily relieved.

## CONCLUSION

A traumatic wound in a K/C/O T2DM is a challenge itself to deal with. Similar cases are encountered by every physician atleast once in a while. This simple yet principally challenging case was healed within a month with no heavy doses of medicines. Patient was advised to monitor his blood glucose level, practice breathing exercise, morning walk, avoid day napping and visit on regular follow up days. After a month patient was completely healed and was able to walk without any pain and discomfort.

## Patient Perspective

"I thought this wound will never heal, as last time when I got a similar wound on the other leg, it took around 3-4 months to heal. I was told to take so many pills and injections were also given. I was also admitted for about 8 days. This time it healed early without any major inconvenience".

## Ethics declarations

### Declaration of the patient consent

The authors certify that they have obtained appropriate patient consent form. In the form the patient has/have given his consent for his images and other clinical information to be reported in the journal. The patients understand that his name and initials will not be published and due efforts will be made to conceal his identity, but anonymity cannot be guaranteed.

## Conflict of interest

All The authors make a declaration that they have no conflict of interest.

## Ethical approval

As this is a case report hence does not need any ethical clearance.

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**Author Contribution**

All the authors have equal contribution in this work.

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