

AYURVEDIC INTERVENTION IN THE MANAGEMENT OF DIABETIC FOOT ULCER – A CASE REPORT

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ABSTRACT

In present scenario sedentary life style, lot of stress and over nutrition are important etiology of diabetes, as one of the most prevalent diseases in the world. Foot complication leading to amputations represents one of the major risk factors of diabetes. In most cases diabetic ulcers are the result of underlying neuropathy, vasculopathy etc. and responsible for more hospitalizations than any other complication of diabetes. It is the leading cause of non-traumatic lower extremity amputations in India, with approximately 5% of diabetics developing foot ulcers each year and 1% requiring amputation. Here a case of patient with high blood sugar and ulcer over right heel since 8 months was treated successfully with Ayurvedic interventions and after the follow up ulcer was healed completely and patient showed marked improvement in other complication related to DM like neuropathies.

Keywords: DM, Neuropathy, Nontraumatic Amputations ,Ayurvedic Intervention

INTRODUCTION

The number of people with diabetes worldwide was estimated at 131 million in 2000, it is projected to increase to 366 million by 2030.¹ Previous studies have indicated that diabetic patients have up to a 25% lifetime risk of developing a foot ulcer.² The annual incidence of diabetic foot ulcers is ~ 3%.³ Once an ulcer has developed, there is an increased risk of wound progression that may ultimately lead to amputation; diabetic ulceration has been shown to precede amputation in up to 85% of cases.³ At least 40% of amputations in diabetic patients can be prevented with a team approach to wound care.⁴ High blood glucose levels for longer durations damage blood vessels leading to reduced blood flow to the foot. This poor blood circulation contributes to the formation of ulcers and impairs wound healing. Elevated blood

glucose levels over time can damage the nerves of foot decreasing person's ability to notice pain and pressure. Loss of sensations further leads to develop pressure spots and accidentally injure the skin, soft tissues and bones. Nerve damage, poor circulation and chronically high blood glucose levels increase the risk of foot complications.

According to *Acharya Susrutha rasa* carrying channels in patients suffering from *madhumeha* become weakened. So, *doshas* fail to come back to the upper part of the body, hence they cause much problem in the lower half of the body and ultimately give rise to *pidaka /vrana /vidhradhi /ulcer*.⁵

Case Report

A male patient, aged 62 years, presented with non-healing chronic wound on the right heel since 8 months in the Outdoor

Patient Department (OPD) of *Shalya Tantra*, SDMCAH UDUPI. Patient was thoroughly examined locally as well as systematically. The local findings revealed a foul smelling deep wound, having fixed and black slough area, around, that is, 5 cm × 6cm × 5 mm. All the other laboratory findings were found to be within normal limits except random blood sugar level, which was 342mg/dl%. Patient gave a history that he had developed this wound after a thorn prick which was unnoticed for 4days later it got suppured and operated by a surgeon at nearby hospital. Later wound became infected and he had taken treatment from many doctors including Allopathic, Homeopathic and Ayurveda.

Personal History:

Bowel: Regular
Appetite: Good
Micturition: Normal
Sleep: Disturbed due to pain.
Habits: H/o. Smoking.

Family History:

Father also had h/o DM.

Physical Examination:

B.P: 130/88 mm of Hg.
P.R: 68/min.

Lab Investigations:

T.C -8200/Cu.mm
D.C: Polymorph: 66%
Lymphocytes: 30%
Eosinophil: 4%
ESR: 10mm/Hr.
H.B:-12.8 gm%
FBS:-120 mg/dl
PPBS:-278 mg/dl
Total Cholesterol: 186 mg%
HDL Cholesterol: 40mg%
LDL Cholesterol: 110mg%
VLDL Cholesterol: 30mg%
Triglycerides: 150mg%

General Survey:

Appearance: Normosthaenic
Facies: Normal
Attitude: Conscious.

Systemic Examination:

CVS: -- H.R:-72/min. P.R:-72/min. B.P: 130/84 mm of Hg.

CNS: -- NAD

RS: -- NAD

GIT:--NAD

Specific Examination:

Vrana:--

Type—*Nija*

Vranasrayas-Twak,Raktham,Sira,Mamsam, Medas.

Vranitopadravas:-

: Pain on legs

: Oozing from ulcer

: Foul smell from ulcer.

:*Vranopadravas -Jwaram.*

***Vrana Pareeksha*:**

Site –over rt.heel

Size:

— Length: 5 cm, Width: 6cm depth 5mm

Number: 1 Position: over rt.heel

Edge and margin –Inflamed with irregular border

Floor: Covered with slough and unhealthy granulation tissue

Base: Indurated.

Discharge: Foul smelling blood stained pus discharge.

Surroundings: Blackish in colour

Depth: 5mm

Bleeding (+)

Tenderness:-Present.

Regional Lymph node: Not palpable.

Rogadishtanam: Adhakayam (*Thwak, Mamsam, Sira*)

Avastha: Pakwam.

Provisional diagnosis: *Vranam.*

Clinical diagnosis: *Dushta Vranam.* (Varicose Ulcer)

Prognosis: *Krichra sadhyam.*

Treatment:

- Ulcers cleaned with *triphala kashyam* and a freshly prepared *tiladi lepa* applied daily on ulcers in a thickness of 0.5cm and kept till it starts drying, later *lepa* was removed followed by regular gauze dressing with *Jatyadi taila*.

*Tiladi Lepa*⁶ – Tila, Nimba, Haridra, Daruharidra, Trivita, Saindhava, Gritam, Yastimadhu

Internal medicines:

Tab. *Triphala Guggulu*⁷ (450mg)

Tab. *Gandhak Rasayana*⁸ (250 mg.) One t.i.d

Asanadi Kwatha 40 ml b.d

Allopathic -

Tab GLYCEGON M 500mg bd

• **Shodhana Chikitsa:**

Manjistadi kshar basti^{9,10}

Manjishthadi Kshara Basti (Yoga Basti) for 8 days.

Days	1	2	3	4	5	6	7	8
Basti	M	MK	M	MK	M	MK	M	M

M – *Matra Basti* with *Dhanwanter Taila* 60 ml MK – *Manjishthadi Kshara Niruha Basti* 480ML

Manjishthadi Kshara Basti:

Manjishthadi Kwatha Drugs – *Manjishtha*, *Triphala*, *Katuki*, *Vacha*, *Daruharidra*, *Guduchi*, *NimbaTwak*

Manjishthadi Kalka Drugs - *Manjishtha*, *Triphala*, *Guduchi*, *NimbaTwak*, *Shatapushpa*

Ingredients

<i>SaindhavLavana</i>	5gm
<i>Manjishthadi Kalka</i>	40gm
<i>MurchitaTilaTaila</i>	60ml
<i>Madhu</i>	80ml
<i>ManjishthadiKwath</i>	100ml
<i>Gomutra</i>	100ml
<i>Kanji</i>	100ml
Total	480ml

Observations

The characteristics of *Dushta Vrana* like *Ativivrita* (broad base), *Bhairava* (ugly look), *Putipuyamansa* (pus discharge), *Durgandha* (foul smell), *Vedana* (pain), *Dirghakalanubandhi* (chronic) were noted in the wound [Figure 1]. There was deep seated blackish slough at the base of the wound and which was hard to remove initially. The wound was cleaned daily with *triphala quatha* and then *tiladi lepa* was applied in adequate quantity [Figure 2]. Wound was bandaged after covering with sterilized gauze and cotton pads. It was noted that the deep seated slough, which was hard to remove, started to dissolve from the base and wound became clean and healthy on 10th day [Figure 3]. The healing was started with the formation of healthy granulation tissue. The margin of wound became bluish

showing growing epithelium. The wound started to contract by filling of tissue from the base of wound day by day. The *tiladi lepa* dressing was continued till 15 days and later dressing with *Jatyadi taila* was continued till complete healing. on 21st day, it was observed that wound size was markedly reduced with normal skin coloration at the healed area [Figure 4]. On the 45th day, the wound was healed completely with minimum scar tissue formation [Figure 5].






Follow up advices

Advice to review every 7 days

Pathya:-*Salee*, *Patolam*, *Karavelakam*, *Aamalaki*

Apathyam: *Thilam*, *Masham*, *Amla Lavana Rasam*, *Dadhee*, oily and spicy foods

Divaswapnam.

	Fig1 on admission day
	Fig2 application of tiladi lepa
	Fig 3 on 21 st day
	Fig4 on 45 th day
	Fig5 on 2 nd month

CONCLUSION

This single case study highlighted the topical application of *tiladi lepa* in *dusta vrana* (diabetic non healing wound). *Tiladi lepa* with *basti* treatment and internal medication was found very effective and shown excellent healing effect in a case of chronic and nonhealing wounds.

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