

**AYURVEDIC MANAGEMENT OF DIABETIC FOOT ULCER WITH  
SPECIAL REFERENCE TO DUSHTA VRANA– A CASE STUDY****Vd. Prakash Rathod<sup>\*1</sup> and Vd. Raman Ghungralekar<sup>2</sup>**

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**ABSTRACT**

Diabetic foot is most lethal, underdiagnosed, mistreated and poorly managed complication of diabetics. It has direct bearing on mortality as 45% of diabetic patient undergo amputation and die within 5 years of the dismemberment.<sup>[1]</sup> In India the rule of 15 and 50, the 15% of all diabetics develop ulcers in their feet and 50% of these cases the infection becomes uncontrolled and progress to amputation.<sup>[2]</sup> In ayurvedic perspective, diabetic foot ulcer can be correlated with Dushta Vrana. *Acharya Sushruta* has advocated *Shasti Upakrma* for

treating various types of wound. In this study of single case of a 70 years old female patient presented with non- healing ulcers over both ankle joint, pus discharge through ulcers, foul smelling, blackish discolouration and swelling over both legs along with itching since, 1 year was taken for study. She was treated with Ayurvedic internal and external interventions for *Dushta Vrana* with positive clinical response.

**KEYWORDS:** Diabetic foot, *Dushta Vrana*, *Shastiupakrma*.

**INTRODUCTION**

Diabetic foot is the most common complication of diabetes greater than retinopathy, neuropathy, stroke and heart combined. According to WHO, the foot of diabetic patients has potential risk of pathological consequences including infection, ulceration and or dysfunction of deep tissues associated with neurological abnormalities, various degree of peripheral vascular disease and metabolic complication of diabetes in lower limb.

Diabetic foot is usually caused by combinations of factors like Neuropathy, peripheral vascular disease, poor glycaemic control, ill fitting shoes along with poor wound healing.<sup>[3]</sup> Common presentations of diabetic foot in the clinics include bunions cracking of skin of the feet, paraesthesia, non- healing foot ulcerations, frank ischaemia/gangrene of foot, cellulitis, osteomyelitis even sepsis.

In ayurvedic perspective, we can correlate diabetic foot ulcers with *Dushta Vrana*. Because the clinical features of *Dushta Vrana* as described in Sushrut Sutrasthan 22/7<sup>[4]</sup> like कृष्णरक्तपीतशुक्लादिनां (blackish, reddish, yellowish, whitish discoloration of wound) गन्धोऽत्यर्थं (foul smell) वेदनावान (painfull) दाहपाकरागकण्डूशोफ (burning, pus formation, redness, itching, swelling) पुतिपुयस्त्राव (pus discharge with foul smell) दिर्घकालानुबन्धिनी (chronic) resembles with diabetic foot ulcers. Acharya Sushruta has described wound management in most scientific way and given *shastiupakrma*<sup>[5]</sup> (60 procedures) to treat wound/ *vrana* and also advised to use *Dushtvrana Vidhi* in Pramehajanya *vrana* and *Kusthaj vrana*. Among *shasti Upakrma* *shodhan*, *Dhavan*, and *Raktmokshan* are specially advised for *Dushtvrana* by Acharya Sushruta. दुष्टव्रणविधीः कार्यो मेहकुष्ठवृणेष्वपि सु.चि. २/९४.<sup>[6]</sup> In this case *dhavan* with *panchvalkal kwath*, *vrana shodhan* with pentaphyte Ointment and *Karanj tail* done along with internal medicine for management of *Dushta vrana*.

## CASE STUDY

A 70 years old female patient visited in OPD with chief complains of itching and swelling over bilateral lower limb, ulcers at left lateral malleolus and right medial malleolus, pus discharge and foul smelling through ulcers and pain in bilateral lower limb since, 1 year. She was known case of Hypothyroidism since, 3 years taking tablet Thyronorm 100 mcg in morning. She was consulted allopathic physician 1 year ago just after symptoms get started. Where she was diagnosed with uncontrolled type 2 diabetes mellitus (HbA1c-11.8). for that she was initially treated with inj. Insulin, I.V. antibiotics, tab. Vit. C, daily betadine dressing and NSAIDs. With this treatment her sugar level came to lower side but symptoms of diabetic foot was persistent. For that she was taking treatment on OPD basis since, 1 year. Finally, for ayurvedic treatment purpose patient visited in Kayachikitsa OPD of our institute.

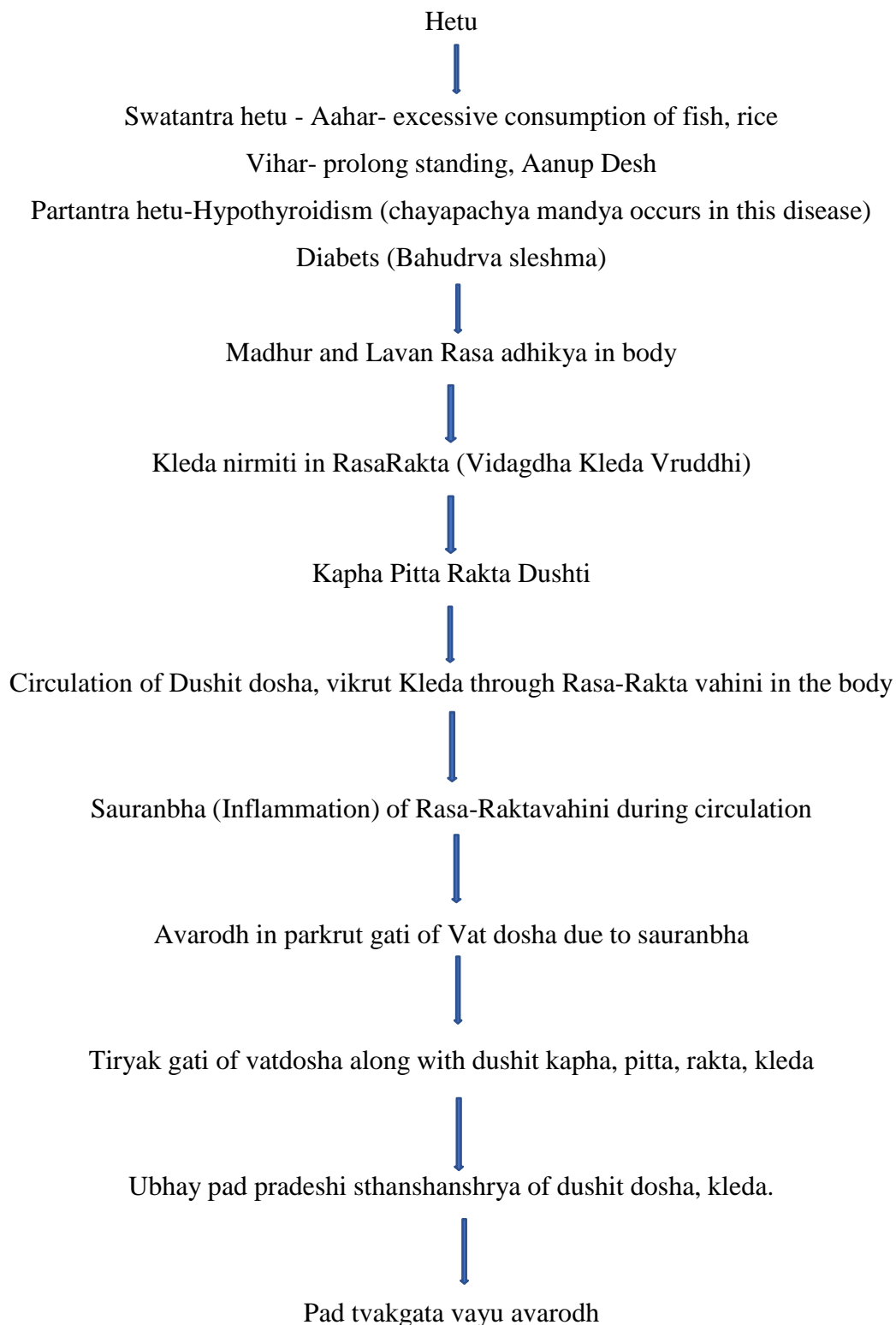
**Personal history:** On H/O taking patient said that she was doing job of maid since, 10 years (5-7 hrs standing job daily), taking fish 3-4 times in meal/ week, rice daily two times (2 bowl

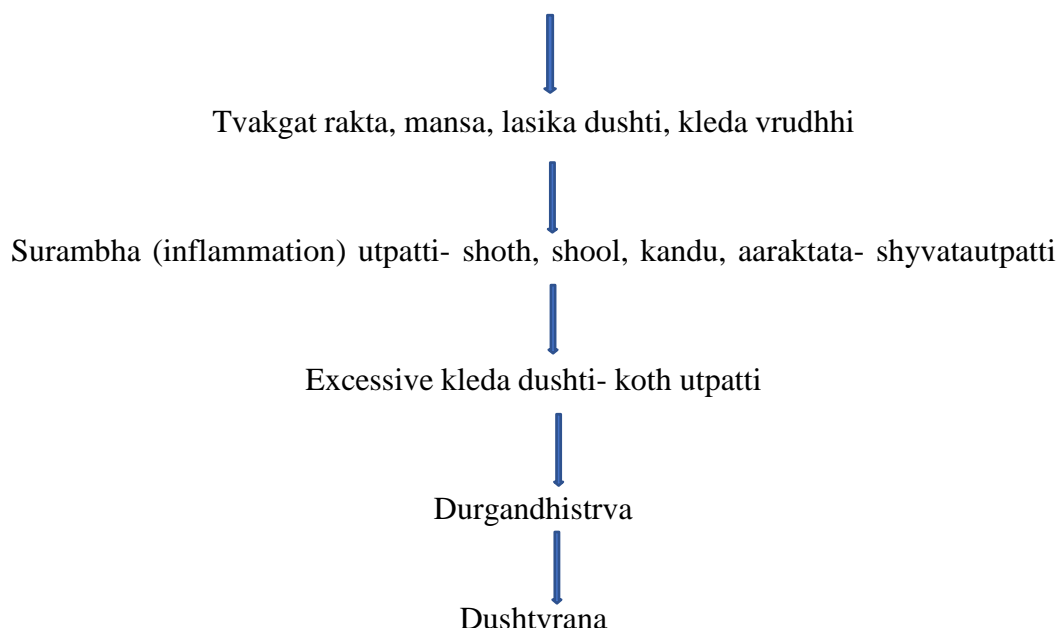
in each meal).

k/c/o Hypothyroidism since, 3 years taking tab. Thyronorm 100mcg in morning.

k/c/o Diabetes since, 1 year taking tablet Gerner 1 (Glimipride 1mg/ Metformin 500mg) in morning and evening.

So Samprapti can be postulated in this case is as follows





### Investigations

Routine haematological and urine investigations were done and findings were within normal limits except ESR which is raised.<sup>[55]</sup>

### Treatment protocol

1. At the initial days of treatment *Sidhartak snan avagahan*, *panchvalkal kwathdhavan* and pentaphyte ointment for local application twice a day were advised externally and *Aarogyavardhini vati* 500mg 2 tab. bd, *Triphala Gugullu* 500mg 2 tab. bd, *Punarnavstak kwath* 20ml bd internally for *Shodhan*, *Ropan* and *Kledanirharan*.
2. After 8 days of treatment *Sidhartak snan avagahan* and *Panchvalkal kwath dhavan* continued and for kandu shaman *Karanj Tail* advised for local application twice a day in non-ulcer region and pentaphyte ointment for local application over ulcer region continued along with internal medicine.
3. After 15 days of treatment *panchvalkal kwath dhavan*, pentaphyte and *karanjtail* continued externally and internally *Punarnavdi Guggulu* 500mg 2tab. bd, *Aarogyavardhini vati* 500mg 2tab. bd, *Sukshma triphala* 500mg, 2tab. bd and *Gandhak Rasyan* 500mg 2tab. bd were given.

Along with this treatment patients has advised to take her OHA and thyronorm tablets regularly.

## RESULT

Significant changes in sign and symptoms were noted before and after treatment. Patients was felt better after 8 days of treatment and on regular follow up symptoms get reduced progressively after 60 days of treatment.

### Criteria of assessment

Symptoms	On day 1	On 15 <sup>th</sup> day	On 30 <sup>th</sup> day	On 45 <sup>th</sup> day	On day 60
Pus discharge	+3	+2	+1	absent	absent
Foul smell	+3	+2	+1	absent	absent
<i>Kandu</i> (itching)	+3	+2	+2	+1	absent
Pain	+3	+2	+2	+1	absent



Before treatment images





After treatment images

## DISCUSSION

Drugs	Component	Properties	Mode of action
<i>Aarogyvardhini<sup>[7]</sup></i> <i>vati</i>	Parad, Gandhak, lohabhasma, Abhrak bhasma, Sudha Tamra bhasma, Shilajit, Triphala churna, guggulu, Chitrak mul churna, Kutki churna, bhavana		Kajjali (Parad, Gandhak)-krumighna, yogvahi, improves micrometabolism hence act as rasayan. Lohabhasma- raktavardhak, varnya, balya. Tamrabhasma- vishnasak,
	dravya- Nimba patra swaras		yakruttoajak. Abrakbhasma- it improves tone of sleshmalkala and act as balya and rasyan. Triphala- kleda, mutra, kaphanashak, sarak, vranashodhan, vranaropak, rasyan. Shilajit- kapha and kledanashak, shoth- har,

			decreases dhatu shaithilya and act as rasyan. Guggulu-ithas antiinflammatory property so act as shoth-har. Chitrak- dipan, pachak, Kusthghn, lekhanaya. Kutki-malabhedak, yakruttoajak, jwarghn. Nimbapatra-Kapha pittanashak, kusthnashak.
<i>Panchvalkalkwath</i>	Vat, Udumbara, Plaksha, Ashwatha, Parish.	Kashya rasa Pradhan, laghu, ruksha,shit.	Works as kledashoshan, raktashodhak so actas vranaropak, shothahara
<i>Sidhartak Snan</i> <sup>[8]</sup>	Musta, Madan, Triphala, Karanj, Aaragvadh, Indrayava, Saptaparna, Daruharidra		Tvak dosha, kushta, shophanashak, varnaprasadak, tridoshhara.
<i>TriphalaGuggulu</i>	Triphala(Aamalki, Haritaki, Bibhitaki), Guggulu, Pippali.	Katu- kashay rasapradhan, ushna virya.	Pippali- kaphaghna, increases bioavailibility of other drug, properties of Triphala and Guggulu are described above.
<i>Punarnvastak kwath</i> <sup>[9]</sup>	Punarnava, Nimba, Patol,Shunthi, Guduchi, Kutki, Daruharidra, Haritaki.		Removes excess kleda through urine, does rasa rakta, pitta kaphapachan and shodhan.
<i>Karanj Tail</i>	Karanj, Chitrak, Jatipatrak		Kushtghna, Kandughna, Krimighna.
<i>Punarnavadi Guggulu</i> <sup>[10]</sup>	Punarnava, Devdaru, Haritaki, Guduchi, Guggulu,Erantail		Stimulates diuresis, reduces fluid accumulation in cells, tissue, serous cavity and act as anti-inflammatory and antihyperlipidaemic.
Pentaphyte cream <sup>[11]</sup>	P-5 Vat, Udumbara, Plaksha, Shirisha.		Useful in infective dermatitis of bacterial and fungal origin, non- healing and chronic wounds, pruritis and septic wound.

<i>kshmaTriphala</i>	Triphala (Aamalki, Haritaki, Bibhitaki), Parad, Gandhak.	Kashya, Tikta, Laghu, Sukshma, Shitavirya, Vrushya.	Kajjali (Parad, Gandhak)-krumighna, yogvahi, improves micrometabolism hence act as rasayan, Triphala-kleda, mutra, kaphanashak, sarak, vranashodhan, vranaropak, rasyan. It also has antiallergic, antiviral, antioxidant, immunomodulatory property. It has lekhan property so reduces kleda, results in decrease in pus discharge.
<i>Gandhak Rasyan</i> <sup>[12]</sup>	Shudha Gandhak, bhavana dravya (Chaturjat, Triphla, Guduchi, shunti kwath, Bhringraj swaras, godugdha)		Gandhak- tikta, katu, aampachak, vishghna, act as antibacterial and antifungal. Guduchi-vrushya, kledanashak, agnidipak, balya and rasyan. Triphala-kledanashak, raktaprasadak Bhringraj-tikta, katu, aampachak, vishghna. Shunthi-dipak, aampachak.

The above said treatment mainly removes excess *kleda*, decreases *dhatu shaithilya*, does *pachana* of *sam dosha*. this results in *dhatavagni sandhukshan* and *prakrut dhatu nirmiti*. Which ultimately leads to *poshan* of *tvak* and *vranaropan*. Drugs used for treatment are not administered at the same time but the drugs and doses were modified according to need of patients.

## CONCLUSION

Thus, by using basic principle of ayurvedic management the patient having diabetic foot ulcer were treated successfully. This treatment is safe and effective in management of diabetic foot with special reference to *DushtaVrana*.



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