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Role of Individualised Homoeopathic Medicine in Diabetic Foot Ulcer Management: An Evidence-Based Case Report

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ABSTRACT:

Diabetes Mellitus (DM) is one of the major health issues nowadays. Patients with diabetes are prone to many complications and diabetic foot ulcer (DFU) is one of them. It is a very common complication of poorly managed diabetes. As a result, skin tissues break down and expose the layers underneath. Although there are many standard managements available, the healing rate of diabetic foot ulcers remains low. Amputation is the ultimate choice in modern medicine but homoeopathy can be beneficial in some cases. Homoeopathy provides a good scope in the treatment of diabetic foot ulcers and prevents amputation. This is a case of a 67-year-old male patient suffering from an ulcer in the right great toe for almost 7 months. There was irritation and burning present in the affected area with a whiteish offensive sticky discharge of pus. Also, some blackish tissue surrounding the ulcer. Symptoms were ameliorated by hot applications. The patient was prescribed the indicated individualised homoeopathic medicine *Arsenicum Album* based on the totality of symptoms. Four dosses of 200th in centesimal potency was prescribed which gave a positive result by the end of one and half month.

KEYWORDS: *Arsenicum Album*, Diabetes Mellitus, Diabetic Foot Ulcer, Individualised homoeopathic medicine, Wound.

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INTRODUCTION:

Diabetic Foot Ulcer (DFU) is one of the most dangerous complications in diabetic patients, causing permanent disability of the lower extremity due to lower extremity amputation (LEA).[1] Thus, it poses a great public health concern in the modern day. These ulcers are caused by poor glycaemic control, poor circulation of the affected area, peripheral vascular disease, nerve damage, poor foot care, etc. Some most common sites that are affected from ulcers are toes,

the plantar metatarsal head, heel, tips of hammer toes and other prominent areas.[2] Diabetes increases the risk of diabetic foot ulcers by 11%.[3] A meta-analysis of 10 studies has pointed out that gram-negative bacteria were the most common reason for DFUs.[4]

In diabetes, feet are more prone to be affected due to neuropathy and vascular disorders. This leads to ulceration, known as a diabetic foot ulcer. The presence of diabetic retinopathy (DR) and albuminuria (Alb) significantly increases the risk of the development of DFUs.[5] In DFU, the healing process of ulcers is delayed causing chronic ulcers.[6] DFU severity can be categorised by using Wagner grades. The range of the grades varies from 0 to 5.[7]

- Grade 0: No open ulcer, but there might be pre-ulcerative lesions or deformities.
- Grade 1: Superficial ulcer involving the full skin thickness.
- Grade 2: Deep ulcer with involvement of ligaments and deeper structures.
- Grade 3: Deep ulcer with cellulitis or abscess formation.
- Grade 4: Gangrene limited to portions of the foot.
- Grade 5: Extensive gangrene necessitating foot amputation.

Classifications and scoring systems help in both management and assessing the outcomes of DFU cases.[8] Another study classified the DFU into 3 groups: patient-related, limb-related and ulcer-related.[9]

Usually, DFU patients come with an unpleasant odour, discharge, occasional pain, and limitation in mobility.[7] If proper treatment is not provided this can cause amputation of the particular area and affect the quality of life.[1,7] DFU complications have emerged as a significant concern for everyone in modern days, resulting in hospitalization and disability.[10] In a comparative study 840 patients with a current or past history of DFU or diabetes-related lower-extremity amputation (LEA) were recruited and followed for 6 years. The study concluded that diabetic patients with diabetic foot complications have an excess mortality rate when compared with diabetic counterparts without foot complications and the general population.[11]

A study shows the annual incidence of diabetic foot ulcers in a population-based ulcer is between 1% to 4.1% with an overall incidence of 25%. The infection leads 50% of DFU cases to amputation compared to non-infected cases.[6] Another study shows that 80% of DFU cases in rural India led to amputation.[7] Stem cell therapy has shown effectiveness as an alternative to amputation for patients without revascularisation options.[12] The rate of recurrence of foot ulcers is also as high as 50% in 3 years. Although not all diabetic foot ulcers can be prevented, a dramatic reduction can be achieved by taking multidisciplinary action.[3] A study shows that the median time for healing of a DFU was long, around 6 months and with a high recurrence rate.[13]

Current conventional management of DFU includes debridement, pressure relief, infection control with antibiotics and revascularization.[6,14] The use of therapeutic footwear with a rigid rocker sole in patients with diabetes with polyneuropathy and a history of a DFU helps reduce the risk of plantar ulcer recurrence.[15] Homoeopathy has a huge scope in managing ulcers and preventing further complications. A few medicines in Boericke's Materia Medica help in the treatment of ulcers like *Anthracinum*, *Arsenicum album*, *Carbo animalis*, *Lachesis*, *Muriatic acid*, and *Tarentula-C*.[16] The Kent repertory includes additional effective ulcer remedies like *Calcarea-Sulph*, *Kali-Sulph*, and

Merc-sol.[17] Previous studies, although not systematically done with specified sample size and design, reveal a positive effect of individualized homoeopathic medicines in the treatment of DFUs.[18-21]

CASE REPORT:

A 67-year-old male patient who had been suffering from DM for the last 14 years came to the outpatient department for consultation. He developed an ulcer in the right great toe 7 months ago. He initially resorted to modern medicine and ointment for the ulcer but without any improvement. Then he sought Homoeopathy for relief.

In this case, the onset was gradual over the 7 months. The ulcer was well-defined and gradually increasing. Discharge and offensive smell also gradually increased. There was a history of allopathic treatment. However, the treatment could not provide him with a cure for the condition. After 6 months of treatment by modern medicine, the patient came to us for treatment.

In past history, chickenpox 12 years ago which was treated with allopathic medicine and he has been taking allopathic medicine for DM for the last 10 years but irregularly. There was a significant family history present. His father had Type 2 diabetes mellitus and his mother had skin disease.

Mentally the patient was irritable and restless. He had a weakness of memory. His appetite was decreased and excessive thirst was present. No particular desire present but aversion for vegetables. The stool was very hard and constipated. He was thermally a chilly patient.

Clinical Findings

Ulcer in the right great toe for 7 months and occasionally there was a slight irritation and burning sensation present, ameliorated by applying hot application. During local examination it was found that there was a whiteish offensive sticky discharge of pus present. Also, some blackish tissue surrounding the ulcer.

Diagnosis

It was diagnosed as a Diabetic Foot Ulcer; the ICD 11 code is BD54.

Totality Of Symptoms

- Ulcer in the right great toe for 7 months.
- Whiteish offensive discharge of pus which is sticky.
- There was irritation and burning which was ameliorated by hot application.
- Excessive thirst.
- Chilly patient.
- Restless and Irritable.
- Weakness of memory.

THERAPEUTIC INTERVENTION:

Selection of Medicine

After repertorisation, a group of medicines like *Arsenicum Album*, and *Silicea* were indicated. After consulting with various materia medicas[16,24] *Arsenicum Album* 200CH/4 dose was prescribed as there was a slight irritation and burning sensation present, ameliorated by applying hot application, also the sticky discharge of pus differentiated *Arsenicum* from other remedies. The patient was advised to take the medicine in every morning for 4 consecutive days in empty stomach.

Table-1: Miasmatic Analysis

Symptoms	Miasm
Foot ulcer	Syphilis
Weakness of memory	Syphilis
Chilly patient	Psora
Restless and Irritable	Psora

This case was mixed Miasmatic with dominance of both Psora and syphilis.[22]

Table-2: Follow-Ups:

Date	Symptoms/Outcome	Prescription
16/11/2022 (1st Follow-up)	The ulcer was improving. Discharge of pus and offensive decreased. Irritation and burning also decreased.	Rubrum100/28 dose/BD
30/11/2022 (2nd Follow-up)	Ulcer improved. No discharge of any pus. A slight offensiveness odour was still present.	Rubrum100/28 dose/BD
21/12/2022 (3rd Follow-up)	Ulcer healed. No discharge of any pus. No irritation or burning sensation is present.	Rubrum 100/28 dose/BD

Table-3: Modified Naranjo Criteria[25]

Domains	Yes	No	Not sure or N/A
1. Was there an improvement in the main symptom or condition for which the homeopathic medicine was prescribed?	+2 √	–1	0
2. Did the clinical improvement occur within a plausible time frame relative to the drug intake?	+1 √	–2	0
3. Was there an initial aggravation of symptoms?	+1√	0	0
4. Did the effecten compass more than the main symptom or condition (i.e., were other symptoms ultimately improved or changed)?	+1 √	0	0
5. Did overall well-being improve? *(*suggest using a validated scale*)*	+1 √	0	0
6A *Direction of cure:* did some symptoms improve in the opposite order of the development of symptoms of the disease?	+1	0	0 √

6B *Direction of cure*:did at least two of the following aspects apply to the order of improvement of symptoms: –from organs of more importance to those of less importance? –from deeper to more superficial aspects of the individual? –from the top downwards?	+1	0	0 √
7. Did"old symptoms"(defined as non-seasonal and non-cyclical symptoms that were previously thought to have resolved) reappear temporarily during the course of improvement?	+1	0 √	0
8.Are there alternate causes (other than the medicine) that—with a high probability—could have caused the improvement? (Consider known course of disease, other forms of treatment, and other clinically relevant interventions)	–3	+1	0 √
9. Was the health improvement confirmed by any objective evidence? (e.g., laboratory test, clinical observation, etc.)	+2 √	0	0
10. Did repeat dosing, if conducted, create similar clinical improvement?	+1	0	0√
Total score	**08**		

Repertorial Totality[23]

Remedy	Ars	Sil	Sulph	Carb-v	Lyc	Lach	Nit-ac	Merc	Caust	Rhus-t
Totality	27	27	23	21	21	19	18	18	16	16
Symptoms Covered	10	10	9	9	8	8	8	7	8	8
Kingdom	Minerals	Minerals	Minerals	Minerals	Plants	Animals, Sarcodes	Minerals	Minerals	Minerals	Plants
[Kent] [Skin]ULCERS: (124)	3	3	3	3	3	3	3	3	2	2
[Kent] [Skin]ULCERS:Burning: (66)	3	3	3	3	3	1	2	3	3	3
[Kent] [Skin]ULCERS:Discharges:Offensive: (66)	3	3	3	3	3	3	3	2	1	1
[Kent] [Skin]ULCERS:Foul: (43)	2	3	2	2	1		1	1	1	2
[Kent] [Skin]ULCERS:Black: (22)	3	2	2	3	3	3				1
[Kent] [Skin]ULCERS:Warmth amel: (4)	2	3				3				
[Kent] [Extremities]ULCERS:Toes: (13)	2	2	2	1			2		1	
[Kent] [Stomach]THIRST:Extreme: (187)	3	3	3	2	2	1	2	3	3	2
[Kent] [Mind]RESTLESSNESS, NERVOUSNESS: (249)	3	3	3	2	3	2	2	3	2	3
[Kent] [Mind]MEMORY :Weakness of (see Mistakes): (168)	3	2	2	2	3	3	3	3	3	2

Fig 1: Repertory Sheet

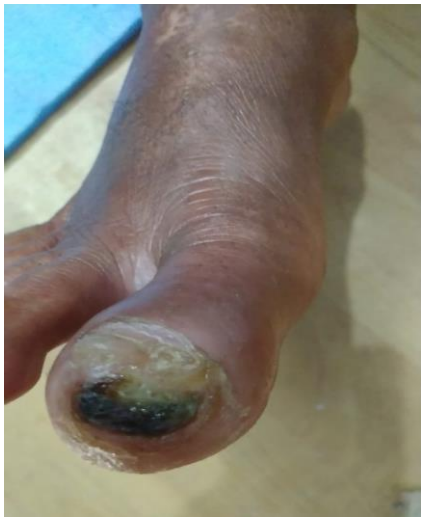

Fig 2: Before treatment

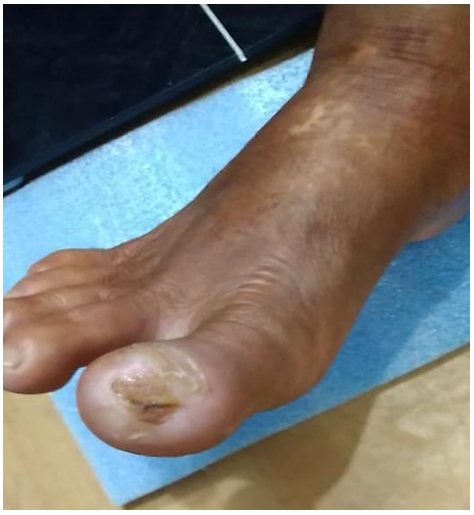

Fig 3: After treatment

DISCUSSION:

This was a case of Diabetic Foot Ulcer (DFU). The patient came with an ulcer in the right great toe. Along with this, there was an offensive discharge of pus, irritation, and a burning sensation. The patient was a known diabetic and was on allopathic medication for it. Blackish tissue (called Eschar) surrounded the ulcer. It was a common visible sign of serious foot ulcers.[2] As per the Wagner system, this case is found to be of grade I. In this case, homoeopathy not only helped to stop the frequent long-term administration of allopathic drugs but also controlled the whiteish offensive sticky discharge of pus from the ulcer, irritation, and burning and completely relieved the patient.

Homoeopathy is a holistic mode of treatment, where all the patients are treated as a whole, not by the name of the disease. The patient's symptoms are considered here to find a perfect similimum to cure the case. In this case, *Arsenicum Album* 200 was prescribed on the first visit after repertorisation (Fig- 1). In the next 3 consecutive follow-ups placebo was prescribed as the medicine acted perfectly and the patient was improving. By the end of one and a half months, we got a positive result as the foot ulcer was completely recovered. The recovery and causal attribution are also established by the NARANJO score of 8. There is no reappearance of the ulcer in next 6 months. Apart from this case report, we also found two cases of diabetic foot ulcers successfully treated using homoeopathic medicines, *Lachesis mutus* and *Calendula officinalis Q*, in conjunction with standard care at an inpatient department.[26]

CONCLUSION:

This case highlights the effectiveness of homoeopathic medicines in managing diabetic foot ulcers. Considering the patient's specific symptoms and characteristics, *Arsenicum Album* was prescribed and that leads to promoting healing, reduces inflammation, and alleviates symptoms. Observational trials and randomized controlled trials with sound methodology are recommended to prove the effectiveness further. The symptoms available in this case are useful and can be utilised in such cases in future.

Declaration of Patient Consent:

The authors confirm that they have obtained the patient's approval on patient consent forms and he has given consent for his

clinical information to be reported in the journal.

Abbreviation:
Diabetic Foot Ulcers- DFU, Diabetes Mellitus- DM, Lower Extremity Amputation- LAE, International Classification of Diseases- ICD,

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Guarantor*:* Corresponding author is guarantor of this article and its contents.

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REFERENCES:

1. Ponnam HB, Lamba CD, Oberai P, Masood SV, Yandamuri S, Rao MN, et al. Calendula mother tincture vs normal saline for ulcer dressing as an add-on to Individualized Homoeopathic Intervention in the management of Diabetic Foot Ulcer: A Randomized Controlled Pilot Study. Indian J Res Homoeopathy 2020;14:233-41.
2. Kumar ATS, Raj N, Jayamohan P. A case study on diabetic foot ulcer and its management. Int J Homoeopathic Sci. 2021;5(4):259–61.
3. Pal PP, Sadhukhan S, Saha S. Management of Diabetic Foot Ulcer by Homoeopathy- A Case Report. Int. J. AYUSH CaRe. 2021; 5(4):290-297.
4. Zubair M. Prevalence and interrelationships of foot ulcer, risk-factors and antibiotic resistance in foot ulcers in diabetic populations: A systematic review and meta-analysis. World J Diabetes. 2020;11:78.
5. Tomita M, Kabeya Y, Okisugi M, et al. Diabetic microangiopathy is an independent predictor of incident diabetic foot ulcer. J Diabetes Res. 2016;2016:5938540.
6. Chang M, Nguyen TT. Strategy for treatment of infected diabetic foot ulcers. Acc Chem Res. 2021;54(5):1080–93.
7. Kundu C, Soren A. Homoeopathic Treatment for Diabetic Foot Ulcer: A Case Report Int. J. AYUSH Care. 2023;7(3):305-319.
8. Monteiro-Soares M, Boyko EJ, Jeffcoate W, et al. Diabetic foot ulcer classifications: A critical review. Diabetes Metab Res Rev. 2020;36(S1):e3272.
9. Monteiro-Soares M, Russell D, Boyko EJ, et al. Guidelines on the classification of diabetic foot ulcers (IWGDF 2019). Diabetes Metab Res Rev. 2020;36(S1):e3273.
10. Government of India, Ministry of Health & Family Welfare: standard treatment guidelines - the diabetic foot - prevention and management in India - full background document (draft) [Jun;2020];http://clinicalestablishments.gov.in/WriteReadData/5381.pdf January. 2016 & Family Welfare Government of India.
11. Al-Rubeaan K, Almashouq MK, Youssef AM, et al. All-cause mortality among diabetic foot patients and related risk factors in Saudi Arabia. PLoS One. 2017;12:e0188097.
12. Health Quality Ontario. Hyperbaric oxygen therapy for the treatment of diabetic foot ulcers: a health technology assessment. Ontario health technology assessment series. 2017;17(5):1.
13. Sørensen ML, Jansen RB, Wilbek Fabricius T, Jørgensen B, Svendsen OL.

Healing of Diabetic Foot Ulcers in Patients Treated at the Copenhagen Wound Healing Center in 1999/2000 and in 2011/2012. Journal of Diabetes Research. 2019; 36:1424-1430.
14. Güiza-Argüello VR, Solarte-David VA, Pinzón-Mora AV, Ávila-Quiroga JE, Becerra-Bayona SM. Current advances in the development of hydrogel-based wound dressings for diabetic foot ulcer treatment. Polymers. 2022;14(14):2764.
15. López-Moral M, Lázaro-Martínez JL, García-Morales E, et al. Clinical efficacy of therapeutic footwear with a rigid rocker sole in the prevention of recurrence in patients with diabetes mellitus and diabetic polyneuropathy: A randomized clinical trial. PloS one. 2019;14:e0219537.
16. Boericke W. New manual of Homoeopathic Materia Medica & Repertory, 9th edition, B jain publishers (P) Ltd, 2004.
17. Kent JT. Repertory of Homoeopathic Materia Medica. 54th impression, enriched Indian Edition, reprinted from 6th American edition, New Delhi, India: b. Jain publishers (P) Ltd; 2017.
18. Mahesh S, Mallappa M, Vithoulkas G. Gangrene: Five case studies of gangrene, preventing amputation through Homoeopathic therapy. Indian J Res Homoeopathy 2015;9:114-22.
19. Harsh N, Raveena J. Role of homoeopathic intervention in diabetic foot ulcer. Homoeopath Herit 2017.
20. Ali MS, Bindu HP. A case of diabetic foot gangrene. Indian J Res Homoeopath 2007;1:42-51.
21. Ali MS, Bindu HP. A case of diabetic foot ulcer: Homoeopathic treatment could avoid amputation. Homoeopath Herit 2009;34:35-8.
22. Allen JH, The Chronic Miasm, Vol II, New Delhi-110005, India, B. Jain Publishers (P) Ltd.
23. Kent JT. Repertory of Homoeopathic Materia Medica. 54th impression, enriched Indian Edition, reprinted from 6th American edition, New Delhi, India, B. Jain Publishers (P) Ltd; 2017.
24. Kent JT. Lectures on Homoeopathic Materia Medica. 12th impression, B. JAIN PUBLISHERS (P) LTD. 2014.
25. Lamba CD, Gupta VK, van Haselen R, Rutten L, Mahajan N, Molla AM, Singhal R. Evaluation of the Modified Naranjo Criteria for Assessing Causal Attribution of Clinical Outcome to Homeopathic Intervention as Presented in Case Reports. Homeopathy. 2020 ;109(4):191-197.
26. Muraleedharan KC, Prakash P. Lachesis mutus and Calendula officinalis Q in Diabetic Foot Ulcer Treatment–Two Case Reports. Homœopathic Links. 2021 ;34(02):164-74.