

Interdisciplinary Management of Diabetic Foot: A Case Report on Collaboration Between Podologist and Wound Care Specialist Nurse

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Background:

Diabetic foot syndrome is a severe complication of diabetes mellitus and a leading cause of hospitalization, disability, and non-traumatic lower-limb amputation worldwide. Its pathogenesis is multifactorial, involving peripheral neuropathy, vascular impairment, repetitive mechanical stress, and altered plantar pressure distribution (1,2). Interdisciplinary management is essential to improve outcomes and prevent recurrence.

Case Presentation:

A 62-year-old man with a 32-year history of type 2 diabetes mellitus presented with recurrent plantar pre-ulcerative lesions in high-pressure areas (fig.1-2). Clinical assessment revealed marked hyperkeratosis, subcallous hematoma, peripheral sensory neuropathy, and multiple risk factors for skin breakdown. Diagnostic evaluation included wound assessment, Semmes-Weinstein monofilament testing, laboratory tests, and biomechanical examination.



Figure 1 Initial clinical presentation showing plantar hyperkeratosis and subcallous hematoma in a high-pressure biomechanical area.



Figure 1 - Detailed view of the lesion highlighting hyperkeratosis and underlying hematoma.



Figure 3 - Demarcation of necrotic tissue after topical treatment according to wound bed preparation principles.



Figure 4 - Early healing stage following removal of hyperkeratosis and pressure redistribution.



Figure 5 - Advanced healing stage with improved tissue integrity.

Management:

An interdisciplinary approach involving a podologist and a wound care nurse was implemented. Podologist management focused on biomechanical evaluation, pressure redistribution, and offloading strategies to reduce repetitive stress (3). Nursing care included wound cleansing, infection surveillance, topical antiseptic treatment, and debridement of non-viable tissue (fig.3) according to the TIME framework (4). Patient education on foot care and pressure avoidance was provided.

Outcome:

After three months, the lesion showed progressive improvement, with reduced tissue damage (fig.4), formation of healthy granulation tissue, and re-epithelialization (fig.5). The combined approach contributed to healing and reduced recurrence risk factors.

Conclusion:

This case highlights the value of interdisciplinary collaboration in diabetic foot management. Integrating podiatric and nursing expertise improves healing and supports long-term prevention in high-risk patients (2,5).

References: Armstrong DG, Boulton AJM, Bus SA. N Engl J Med. 2017;376:2367-2375. IWGDF. Guidelines on diabetic foot disease. 2023. Bus SA, et al. Diabetes Metab Res Rev. 2020. Sibbald RG, et al. Adv Skin Wound Care. 2021. Jeffcoate WJ, Harding KG. Lancet. 2003;361:1545-1551.