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EDITORIAL ARTICLE

THE PROBLEM OF LOWER EXTREMITY BURNS IN DIABETICS

Diabetes mellitus patients are an increasingly prevalent proportion in patients presenting to burn facilities.^{1,2} Microvascular disease and peripheral neuropathy are a common condition in diabetic patients, causing impaired wound healing and leading to diabetic foot syndrome.^{2,3}

Patients with diabetic foot syndrome usually have reduced sensation and suffer from microvascular disease.³ The neuropathic foot in diabetic patients is a clinical entity that needs particular management and care. Reduced sensation can lead more easily to a burn injury in lower extremities.⁴ A burn in a neuropathic foot may be associated with serious functional impairment and prolonged recovery time.⁵

Having reduced sensation, burns in the lower extremities can occur while the foot is heated with hot water or after contact with hot objects or walking on a warm surface.⁴ A significant number of studies have showed that diabetes mellitus patients are usually having the same behavior regarding the time asking for help to medical facilities. Diabetic patients delay to ask for help after the exposure to the source of heat.^{1,6}

Due to the coexistence of microvascular disease that leads to tissue hypoxia burn on such a foot requires special care and attention in order to avoid amputation, especially when the burn is a deep partial or a full-thickness burn.^(1,3,5)

Key aspects of treating diabetic foot burns are the optimization of glycemic control, appropriate wound management and providing a discharge plan. Surgical debridement may be needed. Burns that does not show any signs of healing can be treated with skin grafting.^{3,7,8}

Foot Burns in diabetic mellitus patients is a very serious medical condition that needs to be treated by a multidisciplinary group of health specialists. Physicians, nurses and allied health personnel must work together for the treatment of burns on diabetic feet's in order to maximize the clinical outcomes.^{3,9}

References

1. Goutos I, Nicholas RS, Pandya AA, Ghosh SJ. Diabetes mellitus and burns. Part II-outcomes from burn injuries and future directions. *Int J Burns Trauma* [Internet]. 2015;5(1):13–21.
2. Kimball Z, Patil S, Mansour H, Marano MA, Petrone SJ, Chamberlain RS. Clinical outcomes of isolated lower extremity or foot burns in diabetic versus non-diabetic patients: A 10-year retrospective analysis. *Burns*. 2013;
3. Jones LM, Coffey R, Khandelwal S, Atway S, Gordillo G, Murphy C, et al. A clinician's guide to the treatment of foot burns occurring in diabetic patients. *Burns* [Internet]. 2014;40(8):1696–701. Available from: <http://dx.doi.org/10.1016/j.burns.2014.01.026>
4. Momeni M, A-a J, S-s M, Ranjpour F, Karimi H. Diabetes and foot burns. 2018;XXXI(September):181–4.
5. Balakrishnan C, Rak TP, Meiningner MS. Burns of the neuropathic foot following use of therapeutic footbaths.

Burns. 1995;21(8):622–3.

6. Altindas M, Kilic A, Cinar C, Bingol UA, Ozturk G. The epidemiology of foot wounds in patients with diabetes: A description of 600 consecutive patients in Turkey. *Journal of Foot and Ankle Surgery* [Internet]. 2011;146–52. Available from: <http://dx.doi.org/10.1053/j.jfas.2010.12.017>
7. Archer J V., Cooper ML. Skin grafting of partial-thickness burns in the diabetic foot. *J Am Podiatr Med Assoc*. 2000;90(6):320–2.
8. Goldberg DP, Kucan JO, Bash D. Reconstruction of the burned foot. *Clinics in Podiatric Medicine and Surgery*. 2000.
9. Tsoulou V, Karamolegou E, Kourakos M, Vasilopoulos G, Polikandrioti M. Association of State and Trait Anxiety Between Patients Who Had Undergone Traumatic Amputation and Their Family Caregivers. *Int J Low Extrem Wounds* [Internet]. 2019;153473461984858. Available from: <http://journals.sagepub.com/doi/10.1177/1534734619848580>

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