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CASE REPORT OF COMPLICATED DIABETIC FOOT ULCER

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ABSTRACT
The incidence of diabetes has been increasing in recent years. A diabetic foot ulcer is a severe complication of diabetes; it is the result of the combined effects of infection, neuropathy and vascular disease. A diabetic foot ulcer is the leading cause of amputation in many countries worldwide.Off-loading refers to the use of devices or surgeries that remove pressure or reduce the "load" at the site of ulceration to improve healing. In the present paper, we present the case report of a 66 year old male patient who presented with complicated diabetic foot ulcer.
Key words: Diabetic foot, Ulcer

INTRODUCTION
The incidence of diabetes has been increasing in recent years. A diabetic foot ulcer is a severe complication of diabetes; it is the result of the combined effects of infection, neuropathy and vascular disease. A diabetic foot ulcer is the leading cause of amputation in many countries worldwide.Off-loading refers to the use of devices or surgeries that remove pressure or reduce the "load" at the site of ulceration to improve healing. Diabetic foot ulcers (DFUs) often occur on the sole of the foot at sites of repetitive injury that are unrecognized by patients with diabetic sensory neuropathy. The ulcers are usually at a pressure point on the bottom of the foot where a callus has formed. If a neuropathic patient continues to walk on an ulcer, every step "crushes" new tissue that is attempting to organize and fill the soft-tissue void. People without sensory neuropathy find it painful to walk on an open wound and will instinctively avoid any weight-bearing forces on a wounded foot; they alter their gait or limp to protect the injured site. However, in people with sensory neuropathy, ulcers are painless and often unrecognized unless they leave a stain on socks or blood on the floor. Because neuropathy blocks the pain response, these patients continue to fully bear weight on the site of injury.[1- 3]In the present paper, we present the case report of a 66 year old male patient who presented with complicated diabetic foot ulcer.

CASE REPORT
A 66 year old male patient diagnosed with type-2 diabetes mellitus (DM2) eighteen years ago. This diagnosis was initially accompanied by sensitive and motor peripheral neuropathy, metatarsophalangeal arthropathy with no signs of osteomyelitis and diabetic arthropathy. The patient had presented ulcers in both his feet for ten years now, in the metatarsal area. Amputation had been suggested before, but he had always refused it. Medical treatment at the time of hospital admission was started in the form of Insulin and other supportive measures. The ulcer was Cured with therapeutic honey and cleaning with soft soap. Offload with 1cm-thick pads as a foot sole. He uses a stick to avoid weight bearing. Hyperoxygenated fatty acid compounds (HFAC): three times a day in both legs. The patients reports cramps in both feet although more frequently in the left one. He had moderate Charcot arthropathy in his right

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foot. Therefore, this is a patient with a chronic ulcer of mixed neuropathic and ischemic origin and venous hypertension in his right leg.

DISCUSSION

Diabetic foot is one of the most significant and devastating complications of diabetes, and is defined as a foot affected by ulceration that is associated with neuropathy and/or peripheral arterial disease of the lower limb in a patient with diabetes. The prevalence of diabetic foot ulceration in the diabetic population is 4–10%; the condition is more frequent in older patients. It is estimated that about 5% of all patients with diabetes present with a history of foot ulceration, while the lifetime risk of diabetic patients developing this complication is 15%. The majority (60–80%) of foot ulcers will heal, while 10–15% of them will remain active, and 5–24% of them will finally lead to limb amputation within a period of 6–18 months after the first evaluation. Neuropathic wounds are more likely to heal over a period of 20 weeks, while neuroischemic ulcers take longer and will more often lead to limb amputation. It has been found that 40–70% of all nontraumatic amputations of the lower limbs occur in patients with diabetes. Furthermore, many studies have reported that foot ulcers precede approximately 85% of all amputations performed in diabetic patients.[4- 8]

A 66 year old male patient diagnosed with type-2 diabetes mellitus (DM2) eighteen years ago. This diagnosis was initially accompanied by sensitive and motor peripheral neuropathy, metatarsophalangeal arthropathy with no signs of osteomyelitis and diabetic arthropathy. The patient had presented ulcers in both his feet for ten years now, in the metatarsal area. Amputation had been suggested before, but he had always refused it. Medical treatment at the time of hospital admission was started in the form of Insulin and other supportive measures. The ulcer was Cured with therapeutic honey and cleaning with soft soap. Offload with 1cm-thick pads as a foot sole. He uses a stick to avoid weight bearing. Hyperoxygenated fatty acid compounds (HFAC): three times a day in both legs. The patients reports cramps in both feet although more frequently in the left one. He had moderate Charcot arthropathy in his right foot. Therefore, this is a patient with a chronic ulcer of mixed neuropathic and ischemic origin and venous hypertension in his right leg.Blakely M et al described the application of best practice guidelines for the treatment of a diabetic foot ulcer (DFU) in a complex patient where TCC offloading could not be utilized. The patient was a 47 year-old female with a five-plus year history of a full-thickness DFU on the left plantar mid-foot. Treatment included sharp and ultrasound debridement, the use of a silver hydrofiber dressing, edema management via compression therapy, negative pressure wound therapy, offloading via customized 1/4 inch adhesive-backed felt applied to the plantar foot in addition to an offloading boot and use of a wheelchair, patient education regarding diabetes management, and the application of a bilayered living skin-equivalent biologic dressing. At 15 weeks the wound was closed and the patient was transitioned into diabetic footwear. The felt offloading was a beneficial alternative to TCC. The patient's longer than average healing rate may have been complicated by the duration of her wound, her 41 year history of diabetes, and the fact that gold standard offloading (TCC) was not able to be used.[9]

CONCLUSION

The management of diabetic foot ulcers remains a major therapeutic challenge which implies an urgent need to review strategies and treatments in order to achieve the goals and reduce the burden of care in an efficient and cost-effective way.

REFERENCES

1. Xu B, Yang CZ, Wu SB, et al. Risk factors for lower extremity amputation in patients with diabetic foot. ZhonghuaNeiKeZaZhi 2017;56:24–8.

ISSN: 0975-3583,0976-2833 VOL12, ISSUE 06, 2021

2. American Diabetes Association. Peripheral arterial disease in people with diabetes. Diabet Care 2003;26:3333–41.
3. Rajani R, Melin T, Bjornsson E, et al. Budd-Chiari syndrome in Sweden: epidemiology, clinical characteristics and survival - an 18-year experience. Liver Int 2009;29:253–9.
4. Singh N, Armstrong DG, Lipsky BA. Preventing foot ulcers in patients with diabetes. JAMA 2005;293:217–28.
5. Pemayun TG, Naibaho RM, Novitasari D, et al. Risk factors for lower extremity amputation in patients with diabetic foot ulcers: a hospital-based case-control study. Diabet Foot Ankle 2015;6:29629.
6. American Diabetes Association. 6. Glycemic Targets: Standards of Medical Care in Diabetes-2018. Diabetes Care. 2018;41Suppl 1:S55–64.
7. Margolis DJ, Kantor J, Santanna J, Strom BL, Berlin JA. Effectiveness of platelet releasate for the treatment of diabetic neuropathic foot ulcers. Diabetes Care. 2001;24:483–488.
8. Cruciani M, Lipsky BA, Mengoli C, de Lalla F. Granulocyte-colony stimulating factors as adjunctive therapy for diabetic foot infections. Cochrane Database Syst Rev. 2009;(8):CD006810.
9. Blakely M. The Use of Best Practice in the Treatment of a Complex Diabetic Foot Ulcer: A Case Report. Healthcare (Basel). 2016;4(1):18.