

Facing The Fear: Losing Your Foot to Diabetes

Mr Robert is 56 years old and had been a big fan of sweet food all along. His favourites are chocolate fudge cake and banoffee pie, both of which he consumes daily. There was no pain or discomfort over any parts of his body as he indulges himself in these desserts. Therefore he had no attempt to control his diet and appetite, nor did he have any intention to do a body checkup since he insisted that he enjoy good past health.

Until one day he noticed a wound at the base of his left lesser toes that just refused to heal. He recalled wearing a rather tight shoe earlier that week at work, but he felt no pain over the concerned area. The wound was, in his opinion, so trivial he did not even pay attention to it, not to mention seek medical care.

The wound eventually grew larger in size with the surrounding skin becoming red and swollen. Mr Robert finally became concerned when he started to feel some mild pain together with some stinky discharge from the wound. Mr Robert began to think that there was a need for seeking medical attention.

He was told that the only solution now would be to amputate part of his left foot for infection control; and to prevent further recurrence of the same problem, he had to control his diet and to start regular blood glucose lowering drugs with close monitoring by his primary care physicians and endocrinologists.

Diabetic patients have a higher chance of developing peripheral vascular disease and peripheral diabetic neuropathy affecting their lower limbs. Diabetes has also been proven to be a risk factor for cerebrovascular accident, cardiovascular disease, retinopathy and nephropathy. As a newly diagnosed diabetic patient, Mr Robert was referred to a vascular surgeon for further assessment of his peripheral vascular status. Ankle-brachial Index is a non-invasive screening measure for that condition. Further assessment includes computed

tomographic angiography, MRI angiography or on-table catheterised vascular assessment with fluoroscopy. Because of the peripheral vascular disease with a stenotic segment located between his knee and ankle, Mr Robert received angioplasty with stenting to improve the blood supply to his left foot for better wound healing potential. Subsequently, after repeated debridement of the stump wound, revascularisation procedure and meticulous diabetic control, his left foot wound healed, and he could walk again in a normal shoe with toe filler.



Fortunately, he did not have other complications such as retinopathy and nephropathy, but he was advised to have a retinal assessment by an ophthalmologist and renal function test on a regular basis.

Peripheral diabetic neuropathy is common in patients with neglected diabetes and those diagnosed at an earlier age. Neuropathy can affect different nerve fibres. When it affects the motor nerve fibres controlling the small muscles of the foot, it can lead to claw toes

deformity, abnormal plantar pressures and excessive plantar callosity. Neuropathy can also affect the autonomic fibres controlling sweating and microcirculation; skin cracking due to dry skin is therefore commonly encountered in patients with the foot at risk. Together with the well-known condition of neuropathy affecting the sensory fibres resulting in loss of sensation on the feet, repetitive unprotected trivial injuries from external insults such as tight shoes, unattended foreign bodies, excessive callosity secondary to the abnormal plantar pressure can result, and more severely, ulceration which can lead to infection. Mr Robert was found to have lost his protective sensation upon subsequent physical examination using a monofilament test as a pressure sensation assessment and a tuning fork for vibration. After the wound healed, he was referred to the podiatrist and orthotics for foot pressure assessment and off-loading insole prescription.

Diabetic foot is one of the most devastating complications of diabetes. The lifetime risk of diabetes patients to have this complication is around 15%. The risk of developing diabetes foot ulceration increases with the duration of diabetes and age. 'Some of them will result in limb amputation subsequently,' says Dr Sally HS Cheng, 'the psychological and the socioeconomic impact to these patients are notably significant.' Concerning the management of diabetes foot, it involves a multidisciplinary approach. Identification of the foot at risk and prevention is always the best management, while other treatment options are just for salvage, or if found too late beyond salvage: limb amputation.

Mr Robert came to realise that his lack of attention to his well-being had cost him his foot. Never had he felt more regrets for not taking care of his body well.



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