Diabetic Foot: It’s Time to Share the Burden

Devender Singh

Diabetes currently affects more than 194 million people worldwide and is expected to reach 333 million by 2025, with the maximum burdens falling upon developing countries. India considered as the “Diabetic capital of the world,” and alone currently counts over 35 million people harbouring diabetes. This is estimated to reach 73.5 million by 2025 as a consequence of longer life expectancy, sedentary lifestyle and changing dietary patterns.

Because of the universal availability of insulin and the sophistication of modern therapy, they no longer succumb from coma or starvation but survive into adulthood to develop the late complications of diabetes: retinopathy, nephropathy, neuropathy and peripheral vascular diseases. One of the most common complications of diabetes in the lower extremity is the diabetic foot ulcer which is often ignored. It is estimated that 15% of patients with diabetes will develop a lower extremity ulcer during the course of their disease. Worldwide there are more than one million amputations every year with up to 70% of these amputations related to diabetes. Not only is the impact of amputation devastating to people’s lives, it is also one of the most costly complications, as foot problems are the commonest cause of hospital admissions for people with diabetes.

It has been estimated that the foot problems consume as much as 40% of scarce healthcare resources in some developing countries. Diabetic patients are 17 times more likely to develop gangrene of the foot than are persons without diabetes, and gangrene of the lower extremities occurs in 20–30% of patients with maturity onset diabetes.

The yearly risk of major amputation in patients with diabetes is approximately 5 to 6 times that of a non-diabetic person which is 6.5% per year. A person whose diabetes is recognized in his teens has a substantial chance of requiring a major amputation by the time he reaches his fiftieth year. The remaining limb in a diabetic patient who has one amputation is also at considerable jeopardy, and 30% to 40% of the patients with diabetes who have had one amputation will require a contralateral amputation within 3 years. Not only that, the one year mortality after lower limb extremity amputation of 11–41%, increases to 20–50% and 39–68% after 3 and 5 years respectively.

Fifteen years have elapsed since the St Vincent Declaration set a 50% reduction of lower limb amputations as a principal target in patients with diabetes, yet the situation worldwide is still far from target. Indeed, every 30 seconds a lower limb is lost due to diabetes somewhere in the world. This is really scary, especially because we are little aware of it.

Three great pathologies come together in the diabetic foot, neuropathy, ischemia and infection, leading to an inexorable situation that defeats every health system in the world. Although significant progress has been accomplished due to casting and better wound care in the neuropathic ulcer, about one third to half of patients still may fail to heal. Revascularization procedures (bypass surgery and angioplasty) have made substantial improvement possible in the management of the neuro ischemic foot, as well. Nevertheless, these procedures are very demanding and are not widely available throughout the world. While it is true that newer modalities of investigations like magnetic resonance imaging, magnetic resonance angiography, and novel higher
antibiotics, are now providing further possible solutions to
the challenges posed by the diagnosis and management of
foot infections.19 But in spite of this the threat of MRSA
(methicillin-resistant staphylococcus aureus) and ESBL (ex-
tended spectrum beta lactamase) continues to be alarming.20
Where do we stand and where are we going? This question
remains still unanswered, particularly in developing coun-
tries. Patients are confused where to go, physicians do not
know to whom they should refer, general surgeon thinks,
vascular surgeon feels if there is no vasculopathy, they have
hardly anything to offer them. Then who will take the brunt
of the situation.....

Probably the answer to above problem is—a multidisciplinary
approach, wherein patient himself plays a key role.

The foot problem in diabetic is multifaceted and there are
no simple solutions. In all these patients the primary physi-
cian or the community care provider becomes the hub of
the management. It is important to win the patients confidence
at the primary level. There are myths and misgivings about
the management of the foot problems, which many a time is
responsible for gangrene of foot from the very salvageable
foot at risk. The gloomy picture can be changed to some
extent if the primary practitioner has some special interest in
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