INTRODUCTION

The global burden of diabetes is projected to increase from the current 246 million people to over 380 million people by the year 2025. In the year 2005, most of the estimated 150 million people worldwide afflicted by diabetes lived in developing countries. In India, there were 32 million people with diabetes in 2000, a number that is predicted to increase to nearly 80 million by 2030. Diabetic foot ulcers will complicate the disease in more than 15% of these people during their lifetime. Foot ulcers precede more than 80% of non-traumatic lower limb amputations. The clinical features of diabetic foot problems vary in developing countries because of regional factors. The hallmark of diabetic foot problems in India is gross infection. Major contributing factors for late presentation include the frequency of barefoot walking, attempts at home surgery, trust in faith healers and often undetected diabetes. The disease is often neglected by both the patients and healthcare professionals. This is evident by a lack of podiatric surgeons in the country and very few dedicated diabetic foot salvage centres in the country.

PATTERNS OF FUNCTIONING

Our protocol for patient care is unique. We generally have 3 days of outpatient department (OPD) sessions and 3 days of regular operating theater (O.T.) time. The team is divided into two groups.

Key words: Amrita, Podiatric surgeons, limb salvage
One group that performs regular ward rounds involves a diabetologist, podiatric surgeons and trainees, wound care nurse, podiatric assistant, medicosocial worker and physiotherapist. The podiatric surgeons also take care of O.T. cases and comprise the second group as well. There are regular rotations among all the team members.

We have a large room at OPD with 4 beds for patients with diabetic foot problems. All the patients with any form of diabetic foot problems are seen at our podiatry OPD room. Patients that are seen separately by the endocrinologists are referred to this OPD for screening the foot. In addition, we receive regular daily referrals from other departments. There is an adjacent evaluation room where ankle-brachial indices (ABI), vibration perception thresholds (VPT), podogram, and other diagnostic exams are done.

**CASE LOAD**

We have a daily outpatient load of about 55 to 60 diabetic foot patients and inpatients include about 40 to 50 diabetic foot cases. There are approximately 5-6 diabetic lower limb surgeries performed every O.T. day, which occurs thrice a week. Our cases include extensive necrotizing fasciitis, plantar space infections, toe and foot gangrene, osteomyelitis, Charcot foot and many other related foot pathologies. Diabetic foot complications such as necrotizing fasciitis and Charcot foot are considered uncommon in western countries, however, we encounter at least one new case of necrotizing fasciitis\(^5\) and Charcot foot every week in our department.

As our institute is well known as a diabetic limb salvage centre, we receive numerous referrals of difficult and complicated diabetic foot cases for limb salvage. Our department offers continual services to all patients with diabetes and diabetic foot problems both at the emergency wing and within the entire hospital. All patients referred to the emergency wing receive an initial evaluation by a podiatric surgeon, podiatry assistants and a diabetologist. Treatment plans are developed for the patient and are promptly executed.

Our department has developed well-defined protocols for managing diabetic foot infections; these are modified intermittently in order to provide optimal services for our patients. Foot and ankle reconstructive and corrective surgeries are performed on diabetic patients when necessary. We have devised our own technique called the Amrita sling technique\(^6\) for managing the deformed Charcot foot. To our knowledge, we are the only hospital in India that has a separate O.T. dedicated exclusively for treating diabetic foot patients.

**TRAINING PROGRAM**

AIMSRC is currently the only medical college in India that conducts a one year Post-doctoral Fellowship course in Podiatric Surgery for surgeons. We also have 2-year podiatry assistant course for paramedical staff.

To provide education for the diabetic foot and lower limb diseases, we organize an annual conference called “Amrita diabetic foot conference”. This occurs every May, at our institute campus. All international and national faculty, who are trained in podiatric surgery, are invited to attend.
OUTCOME OF OUR TEAM APPROACH

By providing this comprehensive management, we have maintained a diabetic lower limb salvage rate of 90-91%, which is comparable to the best centres in the world. Our goal of limb salvage is achieved by a collaborative, multidisciplinary team approach to managing diabetic foot complications. A stepwise approach in managing the diabetic foot along with excellent, well-defined scientific protocols at our institute helps in the successful management of our diabetic foot patients. Even in limb and life threatening soft tissue infections such as necrotizing fasciitis of diabetic lower limbs, we have been successful in achieving a very low mortality rate of 6.8%. We believe that our model of care provides the optimal approach to managing limb threatening diabetic foot lesions and, as such, fulfills the tenets of care recommended by the International Working Group on the Diabetic Foot.

References


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