ABSTRACT

Diabetes is an endocrine disorder that has reached epidemic proportions worldwide. Overall 15 % of individuals with Diabetes mellitus will have foot ulcer in their life time and the annual incidence of 2-5%. Diabetic foot is becoming a major concern of diabetic patients and those who treat them from quality of life, social and economic stand point.

AIMS & OBJECTIVE

To study the current trends concerning the pathology, complications and treatment of diabetic foot ulcers, the co-relation between atherosclerotic changes in the blood vessels of the lower limb & diabetic ulcers and the bacterial flora & evolution of the ulcer with the relation to rigorousness of diabetes.

To assess the prevalence of diabetic foot ulcer and relative distribution according to age, sex, occupation and other factors among diabetic patients in patients attending Coimbatore Medical College hospital (CMCH).

To study the mode of presentation and appearance of diabetic foot ulcers, to emphasize and enhance the knowledge of diabetic patients regarding self-care and regular diabetic foot evaluation, to understand the pathology of diabetic foot ulcer and early recognition of complications of peripheral neuropathy and ischemia.

To avert the various complications due to diabetic foot ulcers and early management of its complications and to study the different treatment modalities in management of diabetic foot ulcers.
MATERIALS AND METHODS

An Observational study was conducted on 250 diabetic foot ulcer patients attending various surgical units in the Department of Surgery, Coimbatore Medical College Hospital (CMCH) over a period of 1 year, from July 2016- July 2017. The cases were evaluated through history taking, clinical examination, investigations, management and follow-ups.

OBSERVATION

In our study involving 250 patients, youngest patient was 19 years and oldest was 84 years of age. Highest number of cases was found in the age group 51-60 years (31%) followed by 61-70 years (27%). Maximum number of diabetic foot i.e 80% are between the age group of 41-70 years. 160 (64%) cases were male and 90 (36%) females. Majority of patients were farmers (54%) and minority of patients were drivers and office employee (4%). 35 patients (14%) had Type I diabetes, remaining 215 patients (86%) had Type II diabetes. 64 cases (25%) exposed a history of some kind of trauma before the onset of lesion. Ulcer was the major lesion seen and is present in 120 patients (48%), 65 patients Cellulitis (26% ), 50 patients gangrene (20%), 15 patients (6%) presents as a abscess, 30 (12%) cases showed changes of Osteomyelitis and 15 (6%) patients present with Charcot’s joint. 45 patients (18%) presented with duration less than or equal to 1 year. Most of these patients were diagnosed post admission. Only 20 patients (8%) had diabetes of more than 20 years. Maximum 80 patients (32%) in our study had diabetes of 6-10 years and in 10 patients (4%) were detected as a diabetic at the time of admission.
Staphylococcus aureus in about 40% on culture of pus. Other organisms were isolated are Pseudomonas 12%, Klebsiella 18%, E-coli 14%, Proteus 10%. Imipenem and Amoxicillin & Clavulanic acid were sensitive against most of the organisms as they cover a wide range of organisms.

130 cases (52%) were found to have neuropathy. Patients with neuropathy varied from 35-80 years. Majority had history of diabetes more than 5 years. This shows that peripheral neuropathy is common in long standing diabetic patients. 50 patients (20%) had gangrene.

In this study minimum stay in hospital was 1 week (7 days) and maximum was 12 weeks (84 days). Most of patients stayed in hospital form 4-6 weeks.

At the time of admission 175 patients (70%) had RBS more than normal and 75(30%) patients had RBS within normal range. While FBS at the time of admission in the same age group more than normal in 155 patients (62%) and within normal range in 95 patients (38%).

125 cases (50%) were managed by daily dressing and wound debridement, and slough excision. 40 patients (16%) were treated with SSG, 35 patients (14%) underwent Incision & Drainage for abscess and some of them Fasciotomy. Minor amputation was done in 10 cases (4%). BKA was done in 30 cases (12%) and AKA in 10 cases (4%). In most of the cases, limb was salvaged by conservative treatment and minor amputation.
240 patients (96%) recovered from their lesion after treatment while remaining 10 patients (4%) died due to various complications. 160 patients (64%) showed atherosclerotic change.

**CONCLUSION**

The highest number of patients were in the age group of 51-60 years (32%). Males are almost two times more affected than females. Males are more at risk to trauma. Farmers had more incidence of diabetic foot lesions. Duration of diabetes varied from just diagnosed to 25 years and majority patients were known diabetic. Insignificant trauma of some kind was the initiating factor in nearly one-third of the cases. Minimum stay in hospital was 1 week and maximum 12 weeks and most of patients stay for 4-6 weeks. Commonest presenting lesion was ulcer 48%, followed by Cellulitis 28% and gangrene 18%. After 5 to 6 years of diabetes most of patients present with neuropathic lesions and they are in 35-80 years age group some of them develops gangrene.

**KEY WORDS**

Diabetes mellitus, Diabetic ulcer, Cellulitis, Gangrene, Diabetic Foot, Diabetic nephropathy.