

P36

Diabetic foot osteomyelitis. Clinical and microbiological characteristics and prognosis after one year of follow up. Preliminary results.

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Objectives: To determine the percentage of ulcers complicated by osteomyelitis in diabetic patients that heal without amputation. Also, to analyze main clinical and microbiological characteristics of episodes and to identify factors predictive of failure of a conservative treatment. **Methods:** Prospective observational study over two years and at least 12 months of follow up period in diabetic patients with a foot lesion attended in a multidisciplinary diabetic foot clinic. Bone biopsy was required to be included. Age, gender, previous hospitalization secondary to ulcer complication, type, treatment and secondary complications of diabetes mellitus, presence of Charcot arthropathy, ulcer site, ulcer duration and microbiological and baseline characteristics of the ulcer were recorded. Healing was defined as complete epithelization without amputation and absence of relapse at the end of the follow up period. Bivariate statistical analysis was performed by Fisher exact test or t-Student test for qualitative or quantitative variables, respectively. **Results:** Between June, 2007 and March, 2009, 72 episodes of diabetic foot osteomyelitis (DFO) in 52 patients have been evaluated. Until this moment, 27 episodes have finished the follow up period. Conservative treatment was successful in 19, 5 underwent amputation and 3 didn't heal. Peripheral neuropathy was present in all patients and 15 had also peripheral vasculopathy. At the moment the diagnosis was made, in 32 episodes patients were receiving antibiotic treatment, in 7 there was no radiologic lesion suggestive of osteomyelitis and in 3 the prove to bone test was negative. Staphylococcus aureus was the main microorganism isolated (23/72), including 5 MRSA, followed by plasmid negative staphylococcus (19/72), isolated in 12 episodes as monomicrobial infection. Polimicrobial flora including gram negative microorganisms was isolated in 36 episodes, 42% in ulcers that were present for less than one month. Prior hospitalization secondary to ulcer complication ($p=0.01$), number of previous episodes ($p=0.04$) and antibiotic therapy not culture guided ($p=0.01$) were associated with conservative treatment failure. **Conclusion:** The diagnosis of DFO should be suspected when an infected ulcer doesn't improve with antibiotic treatment, even in cases in which bone is not exposed or without radiologic lesion. Antibiotic therapy according to results of culture of bone biopsy seems useful in managing DFO. We have not found an association between baseline characteristics of the ulcer (size, site, duration) and treatment failure.