## P42

**Sequestrectomy in diabetic foot osteomyelitis**

Da Ros R[&], Fontana F[£], Miranda C[%], Assaloni R[&], Brunato B[&], Tortul C[&], Colonna A[$].
[&]Diabetic Center Monfalcone, [£]Microbiology Service Monfalcone, [%]Diabetic Center Pordenone, Diabetic Center Monfalcone, [$]Phatological Anatomy Service Monfalcone, Italy.

**Background:** Osteomyelitis is one of the most frequent infections of the diabetic foot accounting for 20-70% of foot infections. This complication greatly increases the risk of a lower-extremity amputation. In the last years treatment of osteomyelitis in diabetic foot continues to be debated: some authors proposed a complete removal of infected bone, others the prolonged antibiotic treatment. Until recently, most experts considered that the standard treatment for diabetic foot osteomyelitis should be the surgical removal of infected bone. In the last years emerging data underline the possibility to perform a conservative surgery, with minimal bone resection, with good effect in osteomyelitis resolution, minimization of duration of antibiotic therapy and reduction of change in foot biomechanics. **Aim of this study** is to evaluate if clinical surgical evaluation of infected bone performing a sequestrectomy have a direct correlation with hystopathological characteristics. **Materials and methods:** we performed 25 consecutive sequestrectomy in 24 diabetic patients with bone involvement demonstrate by a positive probe to bone and a positive rx independently from vascular assessment and endovascular revascularization in ischaemic limbs. For each patients all part of bones resulted with abnormal consistence was collected in a sample. When consistence of the bone changed we collected bone in a separate sample. **Results: w**e obtained samples from 25 consecutive sequestrectomies performed in diabetic patients with type 2 diabetes (mean age was 70 ±10 years (mean ± SD), 20 men and 5 women, mean HA1c was 8.2 ± 2.4 %). Eighteen patients presented peripheral vascular disease, in ten cases they were submitted to endovascular revascularization before performing surgical intervention. Hystological examination revealed absence of osteomyelitis in 2 cases (presence of fibro productive process without flogosis), the remaining case were positive for osteomyelitis (23/25). Bone evaluated as infected clinically presented acute flogosis, micro-abscess, necrosis of trabecolae. Sample of the bone surgically evaluated as non-infected presented chronic flogosis, absence of micro-abscess, absence of necrosis of trabecolae. Differences between the two sample were statistically significative. **Outcome:** Twenty-two patients presented complete healing of the wound with a mean healing time of 85 ± 48 days. Antibiotic therapy was given orally for a mean duration of 22±9 days. No relapse of wounds or osteomyelitis was observed at the site of previous lesions in a mean follow up of 12 months. **Conclusions:** data from this study demonstrate that clinical differentiation, performing surgery, of infected bone is effective in separate bone with acute flogosis and bone with cronich flogosis. Limited removal of infected bone is associated with a high percentage of success in healing osteomyelitis with a very low relapse rate.