

P35 Can we predict outcomes in diabetic foot osteomyelitis? P Zeun, GM Price, C Gooday, KK Dhatariya. Norfolk & Norwich Hospital, Norwich Medical School, Norwich, UK

Background: Diabetic foot osteomyelitis (DFO) is one of the most common diabetic complications resulting in hospital admission & a leading cause of lower extremity amputation. Several retrospective cohort studies have demonstrated conservative medical management with antibiotics can induce remission in 58-77% of cases. Where surgery is required, there is evidence that early intervention improves patient outcomes. However the extent to which demographic & clinical variables may predict failure of medical management is currently unknown. **Methods:** A retrospective review of patients with DFO presenting to a single tertiary centre was conducted with one year of subsequent follow up after treatment. Cases initially underwent standard medical management by a multi-disciplinary team. Remission was defined as wound healing with no clinical or radiological signs of osteomyelitis at the initial or adjacent sites for at least 1 year after cessation of antibiotic therapy. A total of eight demographic & clinical variables (age, ulcer site, HbA1c, previous osteomyelitis or amputation, culture growth, eGFR <30 mL/min/1.73 m², absence of one or more pedal pulses) were analysed for strength of relationship in predicting amputation & treatment duration. **Results:** 100 consecutive cases of patient's with DFO were identified. Over the 12 months of follow up 15 cases died and were excluded from further analysis. The remaining 85 cases of DFO were aged 67.8 ± 12.5 (mean ± SD). Osteomyelitis was located on the distal phalanx in 33 cases (39%), the metatarsal in 21 cases (25%), the proximal phalanx in 17 cases (20%), the middle phalanx in 11 cases (13%) & elsewhere in the foot in 3 cases (4%). Thirty-four (40%) of these had a previous episode of osteomyelitis & 21 (25%) had a previous amputation. Fifty-one (60%) had at least one palpable pulse in the affected foot. After a 12 month follow up period, 55 (65%) had achieved remission with conservative medical management alone with a mean duration of antibiotic treatment of 12.3 weeks ± 9.8. Twenty-nine (34%) cases required amputation. The only variable which was significantly associated with amputation was ulcer site. Osteomyelitis affecting the metatarsal or proximal phalanx were significantly more likely to be amputated than other sites of the foot (P=0.025). Of those achieving remission with medical management alone, those with absent foot pulses required a significantly longer duration of antibiotic therapy to achieve remission (P=0.019). **Conclusion:** DFO of the metatarsal or proximal phalanx is significantly more likely to require amputation than other foot sites. In the absence of palpable foot pulses, patients are likely to require a longer duration of antibiotics to induce remission.