

Predictors of Outcomes in Diabetic Foot Osteomyelitis Treated Initially With Conservative (Nonsurgical) Medical Management: A Retrospective Study, Zeun P, Gooday C, Nunney I, Dhatariya K. *Int J Low Extrem Wounds*. 2016;15(1):19-25.

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Level of Evidence: 3

Reviewer:

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Diabetic foot ulceration is one of the most common complications resulting in hospital admission, with diabetic foot osteomyelitis (DFO) complicating such infections. The optimal management for DFO is controversial with limited evidence for initial treatment, with some authors promoting a primarily surgical approach and others promoting treatment with antibiotics alone. This study evaluated the influence of patient variables on the outcomes of DFO using the nonsurgical approach (antibiotics alone).

A retrospective study was conductive from July 2008 to December 2011. A diagnosis of DFO was made using clinical suspicion and supportive radiographic features. All patients had plain radiographs, and a magnetic resonance imaging (MRI) was taken when osteomyelitis was indeterminate. Patients underwent standard management with ulcer debridement and pressure off-loading.

1. In mild infections, Augmentin was first choice antibiotic therapy
2. In moderate infections, ciprofloxacin and metronidazole were added
3. With severe infections, patients were instead admitted for intravenous piperacillin and tazobactam +/- vancomycin

Remission was defined as wound healing with no clinical or radiological signs of osteomyelitis after 12 months and not necessitating further surgical intervention or requiring further antibiotic therapy.

85 patients met the fully criteria for analysis. After a 12-month follow-up, 54 (63.5%) had achieved remission with nonsurgical management alone with a medial duration of 10.8 (10.1) weeks. In these patients, 14 (26%) were admitted for intravenous antibiotics. The absence of pedal pulse in the foot (n=34) was associated with longer duration of antibiotic therapy to achieve remission, 8.7 (7.1) vs 15.9 (13.3) weeks. Osteomyelitis of the metatarsal was more likely to be amputated than other sites of the foot.

The main limitation of the study was being a retrospective cohort and single-center study with relatively small sample size. In addition, the study was limited by difficulties defining osteomyelitis.



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