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Percutaneous bone biopsy is different to per-wound bone biopsy. Comments on “Diabetic foot osteomyelitis: Is conservative treatment possible?”[☆]



Biopsia ósea percutánea es diferente de biopsia ósea transulcerosa. Comentarios a «Osteomielitis de pie diabético: ¿es posible un manejo conservador?»

Dear Editor,

International working groups currently accept that diabetic foot osteomyelitis can be successfully treated with antibiotics alone, even producing similar results to surgery.^{1,2} There is also a consensus that in order to treat such patients with antibiotics alone, a sample of the infected bone should be obtained. This ensures that reliable data on the microorganism involved in the infection and its sensitivity to antibiotics are obtained.¹ Bone specimens may be obtained during surgery or via percutaneous biopsy, which is considered the gold standard for microbiological diagnosis.³ Jordano-Montañez et al.⁴ stated in their article that all bone samples were obtained by percutaneous bone biopsy, which was a requirement for inclusion in the study.⁴ The percutaneous bone biopsy technique is performed through healthy skin at least 20 mm from the ulcer edge. The procedure is performed in the operating room by an experienced surgeon using a biopsy needle under fluoroscopic guidance.⁵ The aim is to obtain an uncontaminated specimen to treat the patient with antibiotics only. This, however, does not seem to have been the procedure performed by Jordano-Montañez et al. for two reasons. The fact that it mentions that no swab was used indicates that the bone specimen was taken through the ulcer itself. Also, the authors defined surgical debridement of the ulcer and of the maximum amount of affected bone through the ulcer using minimal resections at the Podiatry outpatients clinic together with antibiotic treatment as conservative treatment. Taking the patient to the operating room for a percutaneous biopsy and then performing surgical debridement and bone resection at the Podiatry clinic does not appear to be a logical sequence. It can be deduced from the context of the article that what the authors actually did was debride the infected bone at the Podiatry clinic and then send the bone fragments to the microbiology laboratory. This is not a percutaneous biopsy, but rather a per-wound biopsy, a similar procedure to the one used by Lesens et al. with which

they achieved a remission rate of 81%.⁶ The authors need to clarify whether the 73% cure rate is the result of taking bone specimens via wound and bone debridement at the podiatry clinic. If this is the case, the cure rate cannot be attributed to the use of percutaneous bone biopsy-guided antibiotic therapy since this concept has been used incorrectly. Furthermore, the authors declare that diagnosis was made in all episodes on the basis of positive bone culture results. This means that an isolate was obtained from all specimens with its corresponding sensitivity to antibiotics. Why was culture-guided antibiotic therapy not used in 9% of cured patients and 23% of non-cured patients? This must be clarified because the authors linked the use of culture-guided antibiotic therapy to improved lesion prognosis. However, the authors cannot establish this link since no statistical significance was obtained in either the bivariate analysis ($p = 0.12$) or the logistic regression analysis ($p = 0.05$).

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