

ORIGINAL ARTICLE

The role of procalcitonin as a marker of diabetic foot ulcer infection

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Abstract

Foot ulcers are frequent in diabetic patients and are responsible for 85% of amputations, especially in the presence of infection. The diagnosis of diabetic foot ulcer infection is essentially based on clinical evaluation, but laboratory parameters such as erythrocyte sedimentation rate (ESR), white blood count (WBC), C-reactive protein (CRP) and, more recently, procalcitonin (PCT) could aid the diagnosis, especially when clinical signs are misleading. Fifteen diabetic patients with infected foot ulcers were admitted to our department and were compared with an additional group of patients with non-infected diabetic foot ulcers (NIDFUs). Blood samples were collected from all patients in order to evaluate laboratory markers. In the current study, the diagnostic accuracy of PCT serum levels was evaluated in comparison with other inflammatory markers such as CRP, ESR and WBC as an indicator to make the distinction between infected diabetic foot ulcers (IDFUs) and NIDFUs. CRP, WBC, ESR and especially PCT measurements represent effective biomarkers in the diagnosis of foot infections in diabetic patients particularly when clinical signs are misleading.