

Combined antibiotic therapy and patients education in the treatment of diabetic calcaneal osteomyelitis

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Dear Editor,

“Diabetic calcaneal osteomyelitis (DCO)” authored by Waibel et al. was an interesting read [1]. The article provides a comprehensive overview of the limited evidence concerning calcaneal osteomyelitis and hence it makes a significant contribution to our practice. With this letter, we would like to comment on the efficacy of combined antibiotic therapy and stress the importance of patients education.

More specifically, we would like to draw your attention to a bold point made in the study. The paper states that there is no evidence that combined local and systemic therapy is superior to monotherapy, indicating equal efficacy or even superiority of monotherapy [1]. After thoroughly reviewing relevant studies and based on our experience of clinical practice, we consider this point overly generalized, as we have found that the combination is more efficient in the management of DFIs including DCO [2,3].

There are studies indicating that combined therapy piperacillin/tazobactam was in fact superior to monotherapy with ertapenem in severe diabetic foot infections, which is further confirmed by a second study showing the superiority of the combination specifically in Gram-negative DFIs [2, 3]. Moreover, clinical experience has shown us that empirical therapy with the combination of piperacillin/tazobactam is the first step in the management of a patient with calcaneal osteomyelitis until isolation of the microbial strains and in certain

cases even after the identification of the responsible pathogens [4].

Hence, we believe that the point made in the paper, although possibly true for some cases of moderate infections, lacks adequate scientific and clinical evidence that would further allow its generalization in the management of all similar cases of DFIs including DCO. Overall, although antibiotics treatment can be debatable there is a consensus that patients education can make a difference regarding DFIs management and prevention [5-9].

Patients education is a key concept in modern patient-physician models. It is reasonable to expect that it should have positive effects on a wide range of diseases, and especially on diseases that are more receptive to self-care behavior such as Diabetes Mellitus (DM), DFIs and consequently DCO [5]. Studies focusing on diabetic osteomyelitis and patients education are somehow sparse, but since it is a diabetic foot complication, there is correlation that allows us to predict the effects of patient education on DCO.

Patients that receive such education generally show better adherence to treatment and more confidence about living with their diagnosis and minimize behaviors that could hamper the therapeutic result. What is more, diabetic foot patients who are informed about the prospect of osteomyelitis are better suited to act to prevent this disease. Since diabetic osteomyelitis is a major risk factor for amputation, we can safely make such an assumption of correlation in this case as well [6]. In a study comparing patients with diabetic foot amputations with general orthopedic patient population it was found that patients in the foot amputee group were 8 times more likely to have inadequate health literacy

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than patients in the general orthopedic patient group [7]. Furthermore, a study of Al Kaabi et al that examines illiteracy in regard to patient behavior and stresses the disadvantageous position that illiterate patients are in regard to their disease progression [8].

Finally, yet importantly our experience in the Diabetic Foot Clinic of Tzaneio General Hospital of Piraeus not only is in accordance to the aforementioned studies but also indicates that educating patients, hospitalized with DFIs and their carers decreases the likelihood of re-hospitalization with the same condition in the future.

At the end of the day, DCOs management depends on both the medical team and the patient. Combination treatment ought to be considered when appropriate while well-informed patients have a better prognosis. All in all, the optimization of antibiotic treatment and the enhancement of patients' education concern both parties and will always be a matter of precision and compassion.

Conflict of interest

The authors declare no conflict of interest regarding to this paper.

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