

Letter to the editor concerning: “Antibiotic treatment in patients with chronic low back pain and vertebral bone edema (Modic type 1 changes): a double-blind randomized controlled trial of efficacy” by Albert HB et al. Eur Spine J (2013) 22:697–707

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Dear Editor,

We read with great interest the article by Albert et al. published in European Spine journal entitled “Antibiotic treatment in patients with chronic low back pain and vertebral bone edema (Modic type 1 changes): a double-blind randomized controlled trial of efficacy”. Authors concluded that antibiotics could be considered as treatment option for patients with chronic lower back pain and Modic type 1 change [1].

The authors have discussed the role of *Propionibacterium acnes* in this group of patients. The antibiotic chosen was amoxicillin–clavulanate, 500/125 mg three times a day, for 100 days. This choice led to several comments: (1) it is known that *P. acnes* is usually susceptible to amoxicillin alone, (2) dose of amoxicillin–clavulanate usually used is 1,000/125 mg three times a day, and (3) what is the justification of the duration of treatment chosen? The study

referenced by authors proposed shorter durations [2]. In recent decades, multidrug-resistant bacteria have led to major difficulties to treat infected patients. Inappropriate choice, including a too broad spectrum antibiotic, insufficient dose and too long duration of treatment which may promote poor observance are all risk factors for the emergence of antibiotic resistance [3]. More, initial antibiotic treatment is almost always administered parenterally and not orally [4]. On the other hand, the authors did not discuss the work published by Fayad et al. who studied the association between the severity of inflammatory endplate changes (Modic) on magnetic resonance imaging and the clinical response to intradiscal injection of corticosteroids in chronic low back pain. In this work, and in others, no infections were reported, which is not in favor of an infectious origin of the studied disease [5]. Furthermore, considering the biopsychosocial nature of chronic low back pain, authors observed absolutely no improvement in the control group in any dimension. The large size effect described in this study is prone to encourage confirmatory studies before recommending such intervention. However, we believe that, because of the risk of deficit of new antibiotics, current antibiotics should be reserved only for infectious diseases actually proven.

Conflict of interest None of the authors has any potential conflict of interest.

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