International Orthopaedics (SICOT) (2012) 36:685
DOI 10.1007/s00264-011-1400-x

LETTER TO THE EDITOR

Reply to the letter to the editor: Could the use of bone morphogenetic proteins in fracture healing do more harm than good to our patients?

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Received: 14 October 2011 / Accepted: 15 October 2011 / Published online: 3 December 2011

We thank Drs. Delimar, Smoljanovic, and Bojanic for their interest in our article [1]. We share their concern that the information about the clinical use of bone morphogenic proteins (BMPs) should be thorough, clear, and state of the art. Our review deals with various aspects of BMP use in general fracture healing. We attempted to project new developments and knowledge from basic science into clinical situations. Where possible, we referred to previous and more extensive papers in order to provide a general overview of the use and efficacy of BMP treatment. We are aware that this format did not allow us to thoroughly cover all areas equally. With respect to the adverse effects of BMPs, we consider the suggested literature by Delimar et al., such as the recent review of BMP-2 treatment for spinal surgery, as valuable additional and more specific information to our paper [2]. We do appreciate the potential dangers of bias by industry-sponsored publications [3], but we have no connections whatsoever with the industry regarding this matter. This is emphasised by the unbiased conclusion of our paper, which states that the BMPs currently used to enhance bone fracture healing are suboptimal, expensive, and cause significant side effects. The take-home message is that optimisation of BMPs is still required if these compounds are to have widespread use in patients to improve fracture healing. Moreover, we agree that most bone fractures can be cared for using correct treatment indications without the necessity of using BMPs. However, for the 5–30% of fractures that will not heal after nine months, BMPs or BMP-associated products could, indeed, be useful. Therefore, we think that the answer to the question: "Could the use of bone morphogenetic proteins in fracture healing do more harm than good to our patients"? depends on future research results and subsequent quality and properties of specific BMPs, combined with specifications of patients and fractures.

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