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LETTER TO THE EDITOR

# Comment on Peerbooms et al.: No positive bone healing after using platelet rich plasma in a skeletal defect. An observational prospective cohort study

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Dear Sir,

I have read with interest this prospective study looking at the effect of adding platelet rich plasma to a tibial defect to see whether there is enhanced bone healing in comparison with standard techniques. I assumed there would be a positive benefit and was therefore surprised to find none. The authors have correctly noted some of the weak points of their otherwise valuable work.

It does occur to me that the postoperative protocol may have some of the answers. I notice that the pain control consisted of both paracetamol, 3 g per day, and diclofenac, 50 mg tds [1]. In some quarters non-steroidal anti-inflammatory tablets are thought to have an inhibitory effect on fracture healing and on bone graft formation. Indeed they are used clinically to reduce ectopic bone formation in total hip replacement.

I understand that prostaglandins are released as part of the normal inflammatory response. They are synthesised from arachidonic acid via the enzymes cox-1 and cox-2. NSAIDs reduce cox activity and therefore relieve the pain due to arthritis. Prostaglandins play an important role in bone repair and normal bone homeostasis. It is therefore felt that inhibitors of cox enzymes reduce bone healing. Opinion is divided about the clinical effects on bone healing of NSAIDs. Most research has been done on animal models but NSAIDs are not given in most centres after spinal fusions and are used to reduce ectopic bone formation [2–5].

The use of NSAIDs in the context of this trial seems to add an unknown and unnecessary variable into the mix which, with small numbers, may confuse the results.

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