



Correspondence

Chondrotoxic effects of intra-articular anesthetics in shoulders



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Intra
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The objective of this letter is to warn orthopaedic and trauma surgeons in colleagues for these chondrotoxic effect and to use intra-articular local anesthetics with caution, especially in an emergency care population with patients who already suffered an injury to their shoulders' cartilage due to the dislocation. Almost two-thirds of all first-time dislocations at the age of <25 years will develop different stages of arthropathy within 25 years.⁵

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Conflicts of interest

None declared.

References

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Dear editor,

With great interest we read the article of Kashani and colleagues "Intra-articular lidocaine versus intravenous sedative and analgesic for reduction of anterior shoulder dislocation".¹ This article that has been recently published in your journal describes the interesting results of a randomized controlled trial that compared intra-articular lidocaine with intravenous sedation for the treatment of shoulder dislocations.

Although we agree with the benefits of intra-articular sedation over local sedation, we feel that possible disadvantages of the use of intra-articular lidocaine have not been properly addressed. Kashani and colleagues¹ do make note of possible chondrolytic effects of local anesthetic injections in the study limitations paragraph but state that it is uncommon.

Recent systematic reviews have reported toxic effects of intra-articular use of anesthetics.² Sola et al. has also reported an in vivo chondrotoxic effect after a single injection of different concentrations of saline, bupivacaine, ropivacaine, triamcinolone, and a mixture of these agents in the knee joint of rats. Only an injection with a low dose of ropivacaine did not result in chondrotoxicity.³ Although the effect of bupivacaine seems to be more profound, lidocaine also has chondrotoxic effects as has been shown by Karpie and colleagues.⁴

Although sedation with intra-articular lidocaine may have benefits over IV sedation, there are multiple studies that report toxic effects of anesthetics on articular chondrocytes.

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