Letter to the Editor

I have read with interest the article by Krueger-Franke, Siebert and Rosemeyer,¹ entitled 'Surgical treatment of dislocations of the acromioclavicular joint in the athlete'. The authors advocated surgical treatment in acromioclavicular (AC) dislocations with a PDS-cord augmentation and a transarticular wire fixation during six weeks. In the results and in the following discussion there is no reference to possible complications related to surgical treatment. I would like to underline a rare but important complication that, to many authors, could contraindicate the use of Kirschner wire transarticular fixation of the AC joint; and this is the intrathoracic migration of the Kirschner wire with potential devastating iatrogenic consequences.

Such a complication was first reported by Mazet in 1943.² Since then, authors had reported cases of wire migration to different locations from the AC joint.³⁻¹² This complication seems to be more frequent and dangerous when the fixation is in the sternoclavicular joint¹³⁻¹⁵ but there are reports about possible migrations of pins placed around the area of the shoulder girdle.^{13 16 17} While the complications may be rare in terms of the total number of pins that have been placed in the area of the shoulder, this rarity is perhaps one of the factors that has led to the continued use of pins, with sometimes disastrous consequences.¹³

According to Lyons and Rockwood,¹³ this severe complication has probably been underreported because of the sensitive and litigious nature of the problem. All types of pins, whether smooth, treated, or bent (if broken), have been reported to migrate.³ Lyons and Rockwood¹³ and Daus *et al*¹⁴ have considered the risk of migration after fixation of the sternoclavicular joint with pins to be so great and severe as to absolutely contraindicate the use of pins to fix such a joint. Physicians can also have serious problems related to the complications of migration of pins, including manslaughter charges.¹³

Therefore, pins must be used with the utmost caution in the shoulder girdle and several procedures should be followed so as to avoid their migration. Before placing pins in the region of the shoulder girdle, the physician must carefully instruct the patient concerning the importance of follow up evaluation and removal of the pins. The ends of the pins must be bent,¹⁴ or restraining devices must be used.¹⁶ De la Caffinière and Vignes¹⁸ have reported the use of locked pins to avoid migration. Radiographs should be made intraoperatively or immediately postoperatively to document the placement of the pins, and follow up x rays should be made every two or four weeks until the pins are removed. As suggested by Hui-Ping Liu *et al*,¹⁵ patients must be followed up very closely, both clinically and radiographically, until the conclusion of treatment, at which time all pins should be removed.

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