

Migration of a Kirschner wire into the lung with shoulder dislocation

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Accepted 5 August 2017

DESCRIPTION

A 69-year-old female was presented with right shoulder pain due to chronic anterior shoulder dislocation. She underwent an operation for arthroscopic rotator cuff repair (figure 1). Rotator cuff repair was not possible due to massive rotator cuff tears and the glenohumeral joint was not stable. After reduction, therefore, temporary fixation of the glenohumeral joint was performed with two 3.0mm Kirschner wires (K-wires) (figure 2). One wire was removed due to superficial infection 17 days after the surgery. As a result, the humeral head was dislocated, and the remaining wire migrated into her lung (figure 3). Chest CT showed pulmonary contusion without evidence of pneumothorax (figure 4). Fourteen days later, the K-wire was removed carefully with fluoroscopic guidance to prevent haemorrhage and pneumothorax.



Figure 3 Repeat dislocation of the shoulder with the wire.



Figure 1 Chronic anterior shoulder dislocation.



Figure 2 Temporary fixation of the glenohumeral joint with two Kirschner wires.

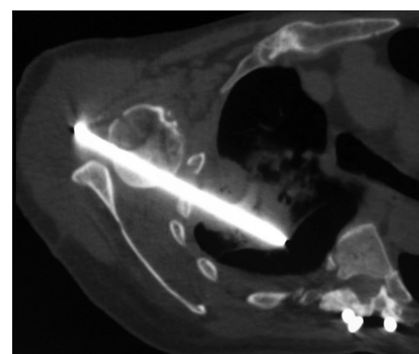


Figure 4 The Kirschner wire migrated into the lung with no pneumothorax.

Forty-two months postoperatively, the humeral head remained dislocated with modest relief of joint pain. Chest function is normal without pulmonary contusion and pneumothorax.

Learning points

- Use of Kirschner wires (K-wires) around the shoulder should take into consideration the possibility of migration of K-wires into the lung. Use of K-wires should be limited to evidence-based indications, and its use in shoulder dislocation is not well supported in the literature.
- To check the position of K-wires, radiographs should be made frequently until the K-wires are removed.



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To cite: Suzuki T, Matsumura N, Iwamoto T, et al. *BMJ Case Rep* Published Online First: [please include Day Month Year]. doi:10.1136/bcr-2017-221850

Postoperative K-wire migration is a well-known surgical complication.¹⁻³ Temporary fixation with K-wires is sometimes performed for dislocation of the acromioclavicular or sternoclavicular joint. The use of wires around the shoulder should take into consideration the possibility of this rare but potentially dangerous complication. Use of K-wires should be evidence based and its use may be not a valid option in similar conditions.³

Contributors TS and NM were responsible for the conception and design of the report. NM was the primary clinicians responsible for the patient's care. TS and TI searched the scientific literature. TS and NM wrote the report and TS was responsible for critical revision. TI and KS took overall responsibility.

Competing interests None declared.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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