

We therefore suggest that ketamine deserves to be evaluated as an agent which may prove to be a valuable addition to the therapeutic measures available for the fight to reduce hospital deaths from life threatening asthma.

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Migration of a Kirschner Wire from the clavicle into the abdominal aorta

Sir

A 33-year-old male presented to the Accident and Emergency Department on 30 April, 1987, because of back pain which he claimed was caused by lifting.

The pain was described as constant, discomfoting, and mostly in the lower back.

Significant past history included a motor vehicle accident in 1985 during which he sustained a fractured right ankle and a fracture of the left clavicle. The fractured clavicle was corrected surgically by open reduction and fixation with Kirschner Wires (Fig. 1). Physical examination demonstrated some tenderness in the region of the second lumbar vertebrae and limitation of straight leg raising in both legs. Power, tone, sensation and reflex were normal.

Plain films of the lumbar spine revealed a metallic density 6.5 cm long lying centrally and just anterior to the 2nd and 3rd lumbar vertebrae. (Fig. 2).

Fluoroscopic examination indicated that the metallic body was pulsating. Computerized Tomography indicated that the metallic body was wholly within the lumen of the aorta. (Fig. 3).

X-rays of the clavicle were then reviewed and this revealed that three Kirschner Wires were applied during surgery.

On further discussion the patient stated that he had further surgery eight months after whence two Kirschner Wires were extracted and that the third could not be retrieved. (Fig. 4).

The patients clavicle was then re X-rayed revealing that the Kirschner Wire was broken into 2 fragments and we believe that initially there must have been three fragments. (Fig. 5).

The abdomen was surgically explored and the metallic fragment was extracted through an incision in the aortic wall.

Convalescence was uneventful and the patient was discharged after 5 days.

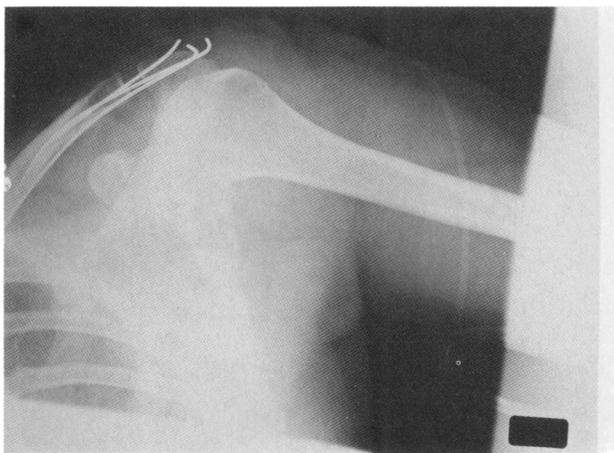


Fig. 1. Fractured clavicle surgically fixed with three Kirschner Wires

Foreign body migration of metallic orthopaedic devices is a well documented occurrence (Mazet, 1943; Leonard & Gifford, 1965; Norback & Makula, 1985).

Foreign bodies usually move following localized circumferential osteoporosis whereby its grip on the bone is loosened. Once loose these objects then move either by muscle or gravitational forces and penetrate directly or migrate with the blood stream (Burman *et al.*, 1986). The most probable course of migration in this case was first into the mediastinum and then penetration into the aorta.

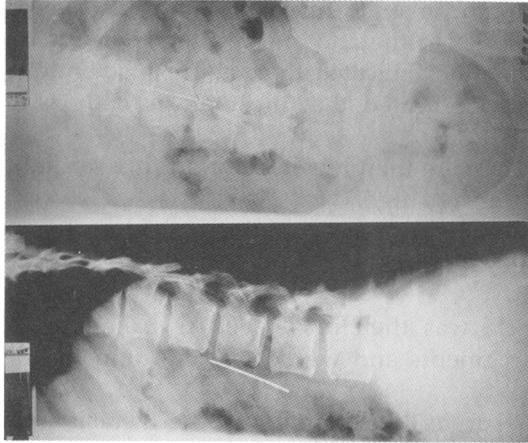


Fig. 2. Metallic density seen lying centrally and just anterior to the 2nd and 3rd lumbar vertebrae

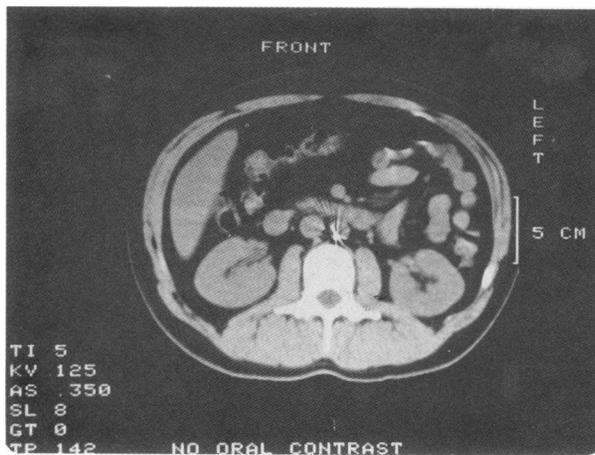


Fig. 3. C.T. Scan showing metallic pin lying within the lumen of the aorta

All Kirschner Wires should be secured at insertion to prevent migration and if migration does occur, early removal is indicated to prevent potentially serious complications.

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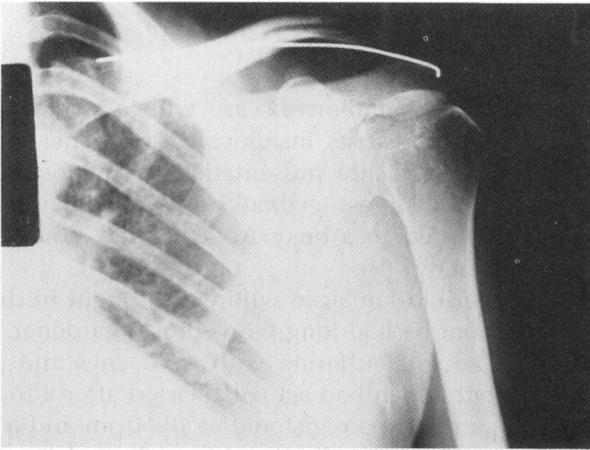


Fig. 4. X-ray showing a Kirschner Wire within the clavicle which could not be retrieved

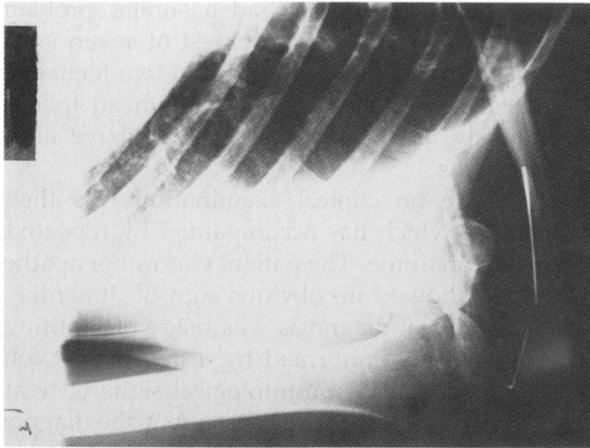


Fig. 5. X-ray showing a fragmented Kirschner Wire

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