plasty. In the minority of cases where the head of the humerus has dislocated anteriorly, removing the head can be difficult. We found that applying a bone anchor into the humeral head facilitated atraumatic extraction of the retained head fragment.

Figure 1 Three-dimensional computed tomography reconstruction of a four-part proximal humeral fracture.

Figure 2 Bone anchor inserted into humeral head.

Figure 3 Humeral head retrieved with suture ends *in situ*.

TECHNIQUE

A bone anchor (Depuy Mitek Rotator Cuff Quickanchor™ Plus; DePuy Mitek, Inc., Raynham, MA, USA), is inserted eccentrically into the dislocated humeral head (Fig. 2). The needles at either end are cut off and the suture ends are then pulled (Fig. 3). The humeral head then rolls out of its cavity without the need to use supplementary instrumentation.

DISCUSSION

Retrieval of the humeral head can be difficult when the head is dislocated antero-inferiorly. The fragment is often too small to accommodate an extraction device; in addition, inserting a corkscrew extractor can push the fragment more medially. Insertion of the Mitek anchor requires little force medially and allows head retrieval in a controlled fashion avoiding head fragmentation and allowing for accurate head size measurement.

A novel adjunct to closed manipulation and insertion of K-wires to paediatric supracondylar elbow fractures

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BACKGROUND

Supracondylar fractures of the distal humerus are a common injury sustained by children. Displaced fractures are often treated with

Figure 1 Transverse K-wire *in situ*.

Figure 2 Final X ray with transverse K-wire removed.

closed manipulation and K-wire insertion.¹ This report describes a technique designed by MA Bari where an additional K-wire may be inserted to aid reduction.

TECHNIQUE

The patient should be prepared as for a standard manipulation and insertion of K-wires. Closed manipulation should be attempted. If this is not successful in restoring anatomy, the additional K-wire may be inserted as described below. A 2-cm incision should be made over the medial epicondyle with the elbow extended and deepened to the bone with meticulous attention to preservation of the ulna nerve. A 2-mm (1.6 mm in young children) K-wire should then be inserted from medial to lateral (under X-ray control) passing through the trochlea and through the capitellum. It should then be passed out through the skin to provide a bar: this can be used to provide both traction and torque to the distal fragment allowing reduction to be easily achieved. Once satisfactory reduction is accomplished, traditional crossed K-wires should be passed using the 2-cm wound used for the medial K-wire. The transverse K-wire is now removed leaving the fracture held by the two standard K-wires.

DISCUSSION

The transverse K-wire is used both as a traction pin and a joystick to provide a useful tool in the reduction of these fractures allowing more accurate reduction of the fracture, and closed reduction of fractures that would traditionally require open reduction.

Reference

1. Marquis CP, Cheung G, Dwyer JSM, Emery DFG. Supracondylar fractures of the humerus. *Curr Orthop* 2008; **22**: 62–9.

Single-port laparoscopic appendicectomy

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BACKGROUND

The next step towards 'scar-less' surgery utilises a modified single-port inserted through the umbilicus achieving excellent cosmetic results. This modification of laparoscopic surgery is currently being adopted in various elective general surgical procedures.^{1,2} Appendicectomy is one of the most commonly performed emergency laparoscopic procedures and provides an excellent training opportunity. In our institution, 26 appendicectomies (17 females) have been performed over a 6-month period.

Figure 1 The tri-channel R-port.

Figure 2 Intra-umbilical port insertion.