BRIEF REPORT
REPAIR OF TRICEPS TENDON AVULSIONS OR RUPTURES

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After the repair of rupture or avulsion of the triceps tendon it is usual to immobilise the elbow in plaster for a few weeks. A method is described which obviates the need for plaster and permits early mobilisation of the elbow.

Technique. The patient lies in the prone position with the injured arm resting on his chest and supported by an assistant. A straight posterior incision is made from about 10 cm above the tip of the olecranon to about 3 cm below it. The fascia is incised and the proximal end of the ruptured or avulsed triceps tendon identified. It usually includes a bony fragment and, if so, this is excised. A hole 3 mm in diameter is drilled transversely through the olecranon about 1 cm distal to its tip. One end of a 4 mm wide Mersilen band (Ethicon Ltd, Scotland) is passed through the hole. This band, which will reinforce the suture, is brought proximally to lie beside the tendon at the level of the musculotendinous junction (Fig. 1). It is threaded through a large needle and a loop is made through the tendon about two-thirds of the distance from the tip of the olecranon to the musculotendinous junction. The needle is then passed transversely through the tendon and another loop is fashioned (Fig. 2).

The elbow is held in the extended position and tension is applied to the reinforcing band in order to bring the proximal end of the tendon close to the tip of the olecranon or to the distal end when this is present. The two ends of the band are tied together as shown in Figure 2. The knot is secured with silk sutures. The proximal end of the divided tendon is then sutured to the distal end (or to the periosteum) with Dexon or silk sutures. The torn musculotendinous junction on both sides also is sutured with Dexon.

Active movement of the elbow is begun on the first postoperative day, the Mersilen band being strong enough to allow immediate mobilisation.

Material and results. The method described was used to treat nine patients whose ages ranged from 35 to 60 years. All of them had complete or nearly complete avulsions or ruptures of the tendon; all but one had, in addition, an avulsed fragment of bone (Levy, Goldberg and Meir 1982). One patient was operated on 14 days after injury, the others within three days.

Active movements were, in all cases, started on the first day after operation and an almost full range of movement was attained within six weeks. Five of the nine patients had office jobs to which they returned at about four weeks; the other four, who were manual labourers, resumed their occupations gradually at six to eight weeks from operation. A final follow-up examination was made at an average of three and a half years from injury (range 10 months to 6 years); all nine patients had full function.

REFERENCE