

ULNAR APPROACH TO THE WRIST

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An ulnar approach to the wrist is described. We used this technique for several reconstructive procedures in more than 30 cases.

Keywords : wrist ; approach ; triangulate fibrocartilage complex ; distal radioulnar joint ; surgery.

Mots-clés : poignet ; abord ; ligament triangulaire ; articulation radiocubitale inférieure ; chirurgie.

INTRODUCTION

There is a growing interest in the pathology of the wrist with special attention to the ulnar side : the triangulate fibrocartilage complex (TFCC) and the distal radioulnar joint (DRUJ) are at the center of investigation (3, 5). Knowledge of anatomy and biomechanics is increasing but still incomplete. Arthroscopic investigation of the wrist improves our understanding of the structure and function of this complex joint, and one may assume that in the future an increasing number of reconstructive procedures will be performed in this region.

To our knowledge Bowers and Wehbé (2, 6) are the only authors to have published an operative approach to the ulnar aspect of the wrist. Our technique is a modified compilation of both above-mentioned procedures, with the possibility to extend the approach and with maximal precautions to protect ligaments and the TFCC, as well as with the possibility to relocate the extensor carpi ulnaris tendon as previously described (1, 4).

TECHNIQUE

1. Skin incision (fig. 1)

The cutaneous incision is an ulnar open V with the apex over the distal radioulnar joint, one leg

toward the dorsal tuberosity of the triquetrum, and one directed toward the dorsal crest of the ulna and extending proximally over this crest. Extensions to the carpus, the radiocarpal joint and/or ulna are possible. One must avoid the dorsal branch of the ulnar nerve which may cross the incision.

2. Opening the extensor retinaculum (fig. 2)

To make the planned closure and relocation of the ECU (extensor carpi ulnaris) possible, a 2-flap opening technique is preferred. The DRUJ is approached between the fifth and sixth compartment (between the ECU and extensor digiti quinti).

3. Arthrotomy (fig. 3)

In order to avoid damage to the TFCC insertions, we modified the capsular incision (fig. 3a). When the procedure is limited to the ulnar head, involving the DRUJ proximally to the TFCC, a limited arthrotomy (fig. 3b) is usually sufficient.

4. Relocation of the ECU and closure (fig. 4)

The ECU is displaced laterally in most cases and can be relocated to its original location and fixed with one of the retinacular flaps, passed under the ECU and sutured to itself.

DISCUSSION

This approach is a safe one, as only the dorsal sensory branch of the ulnar nerve is in danger,

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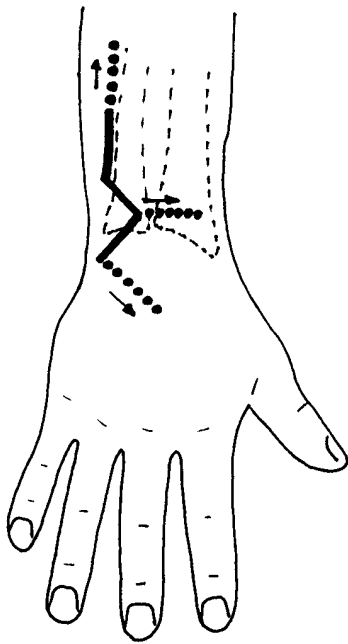


Fig. 1

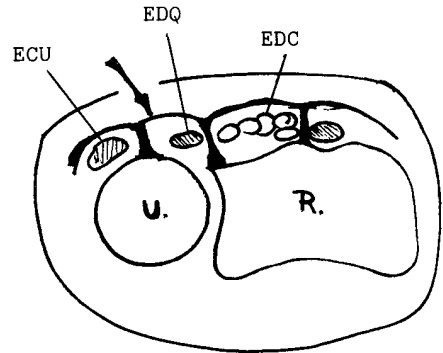


Fig. 2

Fig. 1. — Skin incision with possible extensions.

Fig. 2. — Section of the extensor retinaculum with the 2-flap technique. ECU = extensor carpi ulnaris, EDQ = extensor digiti quinti, EDC = extensor digitorum communis.

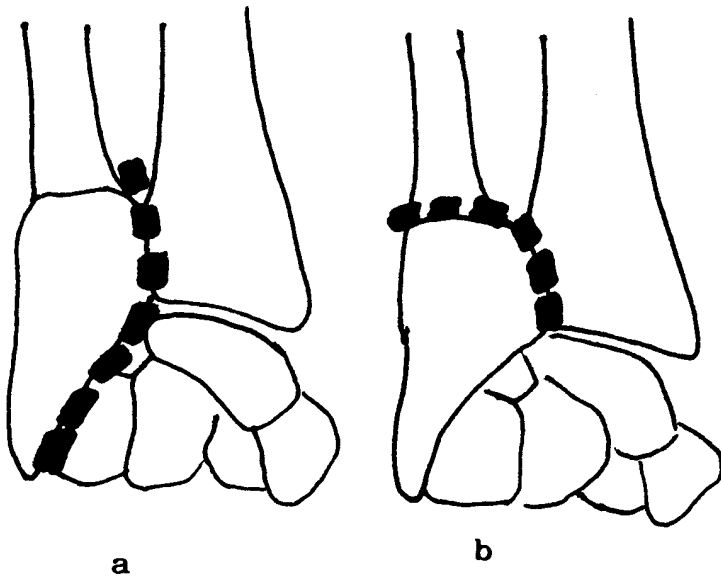


Fig. 3



Fig. 4

Fig. 3. — Arthroscopy ; a) general and b) limited.

Fig. 4. — Relocation of the ECU. ECU = extensor carpi ulnaris, EDQ = extensor digiti quinti, EDC = extensor digitorum communis.

but with care this problem can be avoided. In the last year we used the technique in more than 30 reconstructive procedures in our department (tabl. I). We encountered no major complications ; all necessary structures could be visualized, the dorsal branch of the ulnar nerve was never injured, and skin healing was uneventful. The residual scar is nearly invisible and at an adequate distance from pressure areas. Although we have no arguments for relocation of the ECU we believe that restitution of the original anatomy should be pursued.

Table I. — Possibilities for using this approach

Distal radioulnar joint synovectomy	0
Darrach resection	5
Bowers hemiresection arthroplasty	4
Sauvé-Kapandji	15
TFCC : excision	1
reinsertion	6
ulnar styloid fixation	1
Triquetrolunate arthrodesis	6
Stabilization of ECU	1
Total	39

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SAMENVATTING

L. DE SMET en G. FABRY. Ulnaire toegangsweg tot de pols.

Wij beschrijven een veilige en simpele benaderingsweg naar het ulnaire deel van de pols.

RÉSUMÉ

L. DE SMET et G. FABRY. Abord cubital du poignet.

Description d'un abord simple et adaptable de la région cubitale du poignet.