

DE QUERVAIN'S DISEASE - MODERN TRENDS IN TREATMENT

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The most popular surgical procedure for treatment of the De Quervain's disease consists of a longitudinal incision, exposition of the first osteofibrous channel (the first compartment) and releasing the compression over the M. abductor pollicis longus and M. extensor pollicis brevis tendons. This technique has some disadvantages such as rough skin scar and possible dislocation of the tendons after releasing. Seven patients with De Quervain's disease were presented. They underwent D. Viet's surgical procedure (1992). The rough skin cicatrices and possible tendon dislocations were avoided because of their fixing with a capsular flap. The good results encouraged the application of this new method.

Key-words: Tenosynovitis, De Qervain's disease, decompression, capsular flap

De Quervain first described the tenosynovitis of the first osteofibrous channel in 1895 and it became popular as De Quervain's disease. He proved that it was a result of the inappropriate size of the channel and the two tendons passing through it. The most common technique for surgical treatment consists of longitudinal skin incision over the channel and subsequent decompression after resection of the vaginal shell. The pain decreases but some complications may appear as wide and rough cicatrix, neurinomas and anterior dislocation of the tendons during wrist movement. Recently, some new surgi-

cal methods become popular avoiding these disadvantages. We perceive Le Viet's and Lantieri's surgical procedure (1992) as the most reliable one and present our experience gained with it.

MATERIAL AND METHODS

We presented 7 of our patients with pain and swelling over the radial styloid processus, a positive symptom of Filkenstein. All of them were women at a mean age of 45,7 years. The dominating hand was engaged in 5 patients (71 %).

The skin incision was done along the distal dorsal crease of the wrist. The dorsal branch of the radial nerve was exposed and pulled to the ulna direction keeping it from damages because it might cause painful postop-

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erative neurinoma. This nerve passed with a superficial vein (Fig. 1). The first channel was opened by a longitudinal medial incision exposing the tendons that passed through it, i. e. the tendons of the *M. extensor pollicis brevis* and *M. abductor pollicis longus*. The first osteofibrous channel might be divided by a sagittal septum that had to be excised. The *M. abductor pollicis longus* tendon might be presented by two to five separate bands. Excising the posterior wall of the channel enabled the dislocation of the two tendons during wrist flexion. Preparing a fibrous flap from the channel wall based on its lateral aspect (Fig. 2) prevented this phenomenon. This flap was involved in the intradermal suture of the skin made from radial to ulnar direction. It strengthened the dorso-radial part of the skin scar and prevented tendon dislocation (Fig. 3).

RESULTS AND DISCUSSION

There was no styloid pain in 6 patients. The last patient complained of a pain during strenuous activity. The scars were small. There were no neurinomas and tendon dislocations. All the patients were satisfied with the results of the operative treatment.

Corticosteroid injections in the first osteofibrous channel caused a short-lasting painless period. It might provoke skin atrophy and Wartenberg's neuritis (2). That was why the early surgical procedure was recommended. The

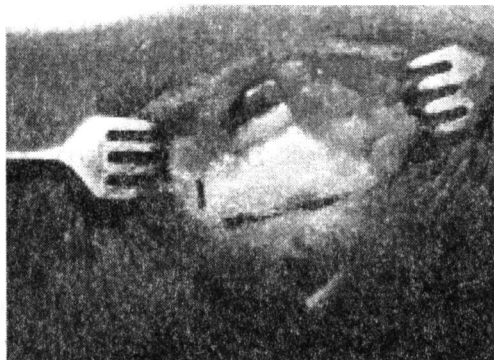


Fig. 1. Anatomical structure of skin incision area



Fig. 2. Forming a radially based fibrous flap preventing anterior tendon dislocation



Fig. 3. Intradermal suture involving the fibrous flap

wide-accepted classical method had some disadvantages as large and rough scar, tendon dislocation with painful clicking (1,6). Foucher proposed in 1989 a capsular fibrous flap to prevent tendon dislocation but its fixing was only in one skin point (5), while the flap of Le Viet and Lantieri (7) had a wide intradermal aspect of fixation. Roland (8) described nerve irritation caused by the contact between the branches of the radial nerve and the tendons in the first osteofibrous channel. These tendons might dislocate during the dorsal wrist flexion rising over the channel and exerting pressure between the skin and tendons.

Irritation of the radial nerve might appear if it was left in the posterior part of the channel. This fact explained our intention to resect partially the posterior wall of the latter. The postoperative neurinomas were considered as an intraoperative error (5). Many

Japanese surgeons (9) argued about the necessity of a septum dividing the first compartment into two parts. They proved that the pathological process involved this portion of the channel where the *M. extensor pollicis brevis* tendon passed, so only this "semichannel" might be resected. They determined the De Quervain's disease as a tenosynovitis of the *M. extensor pollicis brevis* tendon.

CONCLUSION

The horizontal incision and applying the capsular flap of Le Viet and Lantieri represent a successful procedure for treating the De Quervain's disease. It provides good functional and cosmetic results. The good knowledge about the first compartment anatomical structure and variances prevents the rough postoperative scars, neurinoma and anterior tendon dislocation.

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Теносиновит на De Quervain - съвременни аспекти в лечението

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Резюме: Класическото лечение при теносиновита на De Quervain се извършва с надлъжно срязване и отваряне на първия остеофиброзен канал, с което се отстранява компресията върху сухожилията на *m. abductor pollicis longus* и *m. extensoris pollicis brevis*. При тази техника се наблюдават: луксация на сухожилията, груби кожни цикатрикси. За избягване на тези усложнения са препоръчани различни техники. В последно време авторите са приложили при 7 болни методиката на D. Viet (1992). При нея инцизията е трансверзална, за разлика от класическата надлъжна такава, с която се избягват грубите цикатрикси. луксирането на сухожилията при различни положения на ръката се предотвратява чрез фиксирането им с капсулно ламбо. Описва се техниката. Получените добри резултати дават основание за популяризирането на тази техника. Дискутират се и други нови техники за лечение.