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HABITUAL DISLOCATION OF THE EXTENSOR CARPI ULNARIS TENDON

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Tendon dislocations occur rarely and involve, in order of frequency, the tendons to the peroneus longus and brevis, the extensor digitorum communis, the biceps brachii, the anterior and posterior tibialis, and the extensor carpi ulnaris.

The extensor carpi ulnaris tendon, normally situated in the 6th compartment under the ligamentum carpi dorsale, dislocates to the ulnar side over the styloid process of the ulna in the event of dislocation. After the primary dislocation, the condition becomes habitual. On supination of the hand, the tendon will slide into the ulnar direction, while on pronation it will slide back into its normal position, in the groove between the capitulum and the styloid process of the ulna. The mechanism is explained by a movement in which, from a position of flexion-supination-abduction, the hand is forced into extension-pronation-adduction, a movement similar to the backhand stroke in tennis.

Searching the literature, the author found only four reported cases of isolated dislocation of the extensor carpi ulnaris tendon.

Schlesinger, in 1907, reported the first case without known preceding injury. It was treated surgically, a new compartment for the tendon being created under the ligamentum carpi dorsale after detaching a flap of periosteum from the ulna. The operative result is not stated.

In 1933 *Bangerter* described a case which had arisen after a backhand stroke in tennis. The patient suddenly developed severe pain on the ulnar aspect of the wrist, and on supination of the hand he noted a swelling on the ulnar side, accompanied by a "snap". Operation was performed, but the technique is not stated—and nor is the result.

Markees (1937) reported a case of bilateral tendon dislocation without evidence of preceding injury. The patient had complaints only from

one wrist, having pain in the joint upon making extreme movements in physical exercises. At operation, the extensor carpi ulnaris tendon was found to slide loosely under the ligamentum carpi dorsale, sliding in supination across the ulnar styloid process under the ligament to its attachment on the ulna. The operative technique was like that used by *Schlesinger,* and surgery was applied only to the wrist which gave rise to complaints. Five weeks after the operation there was free mobility in the wrist, and the tendon remained in its compartment on supination.

Most recently this condition has been described by *Köhler,* in 1958, who reported a case of unilateral dislocation sustained in volleyball. After operation as described above the patient was completely relieved of discomfort which had consisted in pain on pronation-supination.

PRESENT CASE

Case rec. 1471/63, a woman aged 38. While operating a washing machine the patient had to turn a vertical, downward directed handle to the horizontal position (thereby making a movement corresponding to that described above). This movement, which required great strength, gave rise to a "snap" in the region of the wrist and severe pain in the same site. The condition was interpreted as a distortion by the patient's doctor, who treated her with a supporting bandage. However, the pain in the wrist persisted and was accentuated by housework. On supination-pronation of the hand the patient still felt a "snap" in the region. Therefore, the wrist was X-rayed, but no skeletal abnormality was found.

When, at the end of a couple of months, the condition remained unchanged, the patient was admitted to the surgical department on Aug. 13, 1962.

Physical examination showed that both extensor carpi ulnaris tendons slid in the ulnar direction across the ulnar styloid process on supination, while on pronation they slid back into their normal position. There had been no known injury in the case of the left hand, which showed a normal range of movement without any complaints. On the right, extension-flexion was free, while active pronation-supination was restricted and painful. Fixation of the tendon was, therefore, done on Aug. 14th. After a transverse incision into the ligamentum carpi dorsale, which was incidentally intact, the proximal and distal parts of this ligament were fixed by two nylon sutures to the ulnar periosteum immediately ulnar to the normal position of the extensor carpi ulnaris

tendon. This formed a "septum" which prevented the tendon from sliding into the ulnar direction on supination. After the skin had been sutured with nylon, a circular plaster cast was applied, from the knuckles to the elbow, and the patient was discharged on Aug. 15th. The plaster cast was removed at the end of 3 weeks, the wound had healed *per primam,* and active exercises were started. At follow-up, one month later, the patient had no complaints and free mobility in the wrist. On pronation-supination the extensor carpi ulnaris tendon remained in the osseous groove between the styloid process and the capitulum of the ulna.

DISCUSSION

In three of the five reported cases of dislocation of the extensor carpi ulnaris tendon there had been a history of injury. In two of the five cases the dislocation was bilateral, but gave rise to symptoms only on one side. According to the findings, it must be considered beyond doubt that injury is of aetiological significance, but other factors are probably operative as well. For instance, a congenital anomaly cannot be ruled out.

SUMMARY

A case of habitual bilateral dislocation of the extensor carpi ulnaris tendon is reported. On one side it was possibly caused by injury. It was treated surgically by fixation of the tendon, forming a "septum". At follow-up 7 weeks after the operation the patient had no complaints. There was unrestricted mobility in the wrist, and on pronation-supination the extensor carpi ulnaris tendon remained in its compartment.

RESUME

Il est rendu compte d'un cas de luxation habituelle du long extenseur du pouce, éventuellement provoqué par un traumatisme. Il a été traité chirurgicalement avec fixation du tendon par formation de « septum ». A un examen de contrôle sept semaines après l'opération, on a constaté que le malade était entièrement libéré de symptômes, qu'il avait son entière mobilité du poignet et qu'en mouvement de pronation et de supination le long extenseur du pouce restait dans sa gouttière.

ZUSAMMENFASSUNG

Man berichtet einen Fall von habitueller Luxation der extensor carpi ulnaris Sehne, möglicherweise auf traumatischer Basis entstanden. Sie wurde operativ mittels der Bildung eines „Septum" behandelt. Bei der Nachuntersuchung 7 Wochen nach der Operation findet man, dass der Patient vollständig symptomfrei und das Handgelenk frei beweglich ist. Die extensor carpi ulnaris Sehne verbleibt bei der Pro- und Supination in ihrer Kulisse.

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