

RETRACTED FLEXOR DIGITORUM PROFUNDUS TENDON : AN UNCOMMON CAUSE OF CARPAL TUNNEL COMPRESSION SYNDROME

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A case of median nerve compression due to a retracted flexor digitorum profundus tendon after traumatic amputation of the index is presented.

Keywords : carpal tunnel syndrome ; flexor tendon ; amputation.

Mots-clés : syndrome du carpal carpien ; tendon fléchisseur ; amputation.

INTRODUCTION

Carpal tunnel syndrome is the most common compression neuropathy in the upper extremity. A multitude of conditions have been associated with the syndrome. Traumatic disorders of the wrist, tumors, rheumatoid arthritis, diabetes, hypothyroidism and fluid retention during pregnancy are possible and well-known causes (6). Anatomical variants and muscle anomalies have been described as rare causes of the syndrome. These include malformation of the flexor digitorum sublimis (1, 7, 8, 12), anomalous palmaris longus (2, 3, 10), and aberrant origin and anomalies of the lumbrical muscles (4, 5, 11).

Carpal tunnel syndrome, secondary to a retracted flexor digitorum sublimis tendon, has been presented once (13). This communication presents a case of carpal tunnel compression syndrome caused by a retracted flexor digitorum profundus tendon.

CASE REPORT

A 54-year-old painter sustained an amputation of the right index through the middle phalanx. This injury to his dominant hand occurred while

he was working, 3 years before his first visit. The patient recovered uneventfully from this injury. About 6 months prior to admission to the hospital, he noted progressive, recurrent attacks of paresthesias in the sensory distribution of the median nerve of his right hand.

Examination revealed no weakness of the thenar muscles. The sensibility of the fingers was intact. Tinel's sign was present and Phalen's test was positive. The amputation stump of the index was painfree and well healed.

Surgical exploration of the carpal tunnel was performed under locoregional anesthesia and tourniquet control.

The transverse carpal ligament was divided. A mass in the carpal tunnel was identified with visible pressure effect and displacement of the median nerve (fig. 1). Exploration of the mass revealed the stump of the retracted flexor digitorum profundus tendon of the amputated index finger with adjacent synovitis. The tendon stump was resected and further exploration of the median nerve from the volar wrist into the hand showed no other pathology. The patient immediately noted complete relief of symptoms.

DISCUSSION

The median nerve is highly vulnerable to compression in the carpal tunnel. The anatomy of the carpal tunnel is well understood and documented in the literature (9).

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Any pathologic process that either increases the volume of the structures which pass through the carpal canal, or decreases the size of the carpal canal, can result in compression of the median nerve and cause symptoms of carpal tunnel compression syndrome.

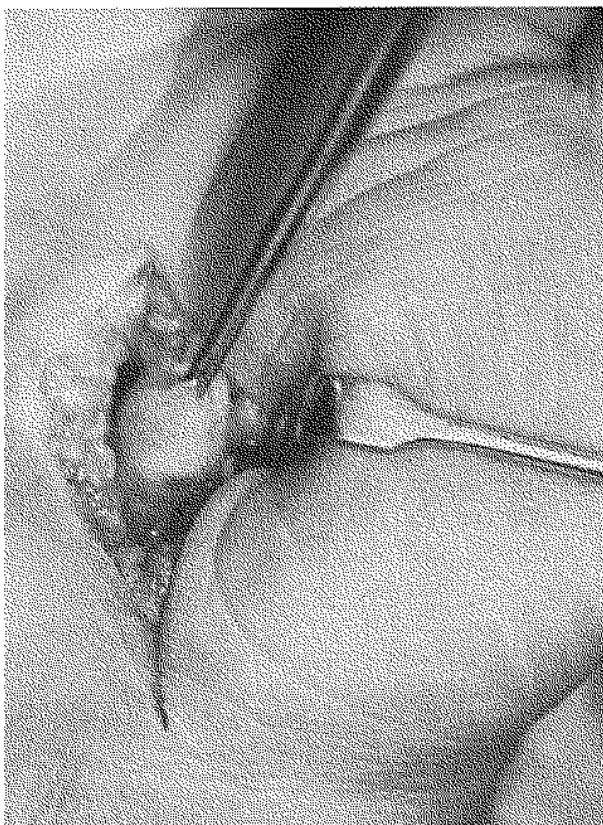


Fig. 1. — Intraoperative photograph showing the retracted stump of the M. flexor digitorum profundus to the right index.

In this case, the retracted flexor digitorum profundus tendon, after traumatic amputation of the index finger, was found to be responsible for the carpal tunnel compression syndrome. The disorder was documented by the visible pressure effect on the median nerve. Complete recovery was noted at the last follow-up.

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SAMENVATTING

J. VRAL, K. D'HOORE, L. DE SMET, G. FABRY.
Geretraheerd flexor digitorum profundus pees : een zeldzame oorzaak van carpal tunnel compressie syndroom.

Beschrijving van een carpal tunnel syndroom bij een patiënt met traumatische amputatie van de index. De geretraheerde flexor profundus pees bevond zich in het carpale kanaal en oefende druk uit op de nervus medianus.

RÉSUMÉ

J. VRAL, K. D'HOORE, L. DE SMET, G. FABRY.
Rétraction du tendon du fléchisseur profond ; cause exceptionnelle de syndrome du canal carpien.

Description d'un cas de compression du nerf médian dans le canal carpien par un tendon fléchisseur profond rétracté. Le patient avait subi une amputation traumatique de l'index quelques années avant l'apparition des signes de compression.