

DYNAVISC®

Adhesion Barrier Gel
for Tendon and Peripheral Nerve Surgery



CASE REPORT

Tenoplasty

Patient had tenoplasty / microneuroraphy performed on his little finger following an injury from a cutting accident.



Dr. Márcio Aita

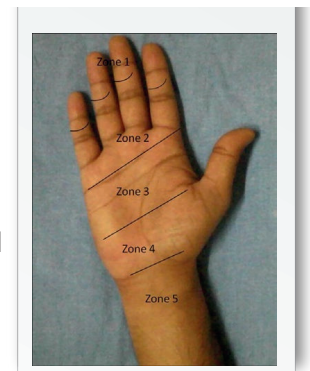
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Case Introduction

The patient was the victim of a cutting injury in the palmar region of the little finger of his right hand and presented with severance of the flexor tendons (zone 2) and digital nerves of the finger.

On the same day, he underwent surgical correction by the local team at The Hospital São Bernardo. Six months later (June, 2023) he presented to me with loss of movement and sensitivity in the finger.



Verdan zones of the right hand

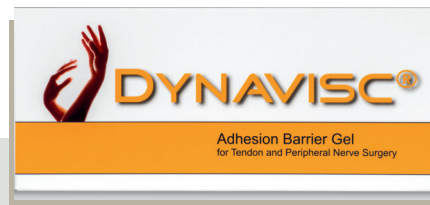
Case Presentation

During the physical inspection, the patient's palmar region (zone 2) of his finger showed flexion deformity and scar hypertrophy. During palpation, there was a decrease in flexion of the proximal and distal interphalangeal joint and an absence of sensitivity in the digital pulp of the finger.

The diagnostic hypothesis was a re-rupture of the superficial and deep flexor tendon and an injury to the digital nerves of the little finger.



Preoperative aspect: flexor tendon injury



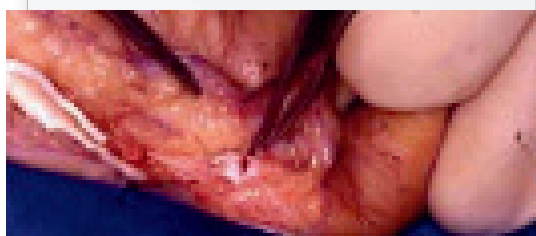
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Operative Approach



The proximal interphalangeal joint stiffness was corrected with a release of adhesion of the extensor and flexor tendons (tenolysis), "check reins," and collateral ligaments.



Tenoplasty of the deep flexor tendon was also performed with a graft from the superficial flexor tendon and microneurography of the digital nerves (direct suture).

Intraoperative aspect:
Neurotendinous lesion Zone 2



The procedure was completed with the application of 1cc of Dynavisc® Adhesion Barrier Gel (FzioMed, USA) in the entire surgical plane.

Follow-up

The patient's little finger showed clinical and functional improvements three days after surgery. He experienced less edema, pain, and hematoma. He irregularly participated in rehabilitation due to time constraints. He recovered 70% of the mobility of the finger and complete sensitivity (discriminated 2 points with 5mm of distance).

Discussion

Deep flexor tenoplasty is effective in the surgical correction of recurrent flexor tendon injury. Microneurohaphy and surgical release of anatomical structures that lead to finger joint stiffness should be followed by an active rehabilitation program, maximizing a beneficial surgical outcome. The use of an adhesion barrier (Dynavisc) improved good clinical and functional results in the immediate postoperative period, including less edema, pain, and hematoma.