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CASE REPORT

Ligament Reconstruction

Patient had scapholunate ligament injury and "Stenner" injury after trauma to her wrist and thumb.

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Case Introduction

The patient's high heel broke leading to a fall. She suffered a scapholunate ligament injury and "Stenner" injury after trauma in the right wrist and thumb,

Case Presentation

X-ray and MRI exams confirmed the patient's scapholunate ligament and "Stenner" injury.

During a physical examination, the patient presented pain, edema, and limited movement in the dorsal region of the wrist and medial region of the metacarpophalangeal (MF) joint of the thumb. Upon palpation, the patient experienced pain in the medial region and a "deficit" in flexion in the metacarpal phalangeal joint of the right thumb, plus pain in the radial dorsum and a deficit in right wrist joint flexion.

The "Watson" and "Stress in Valgus" tests proved positive for right thumb MF, (normal is not having instability in the wrist/thumb).

The MRI showed joint effusion in the MF of the thumb and radiocarpal of the wrist and an absence of continuity of the fibers of the ulnar collateral ligament of the thumb and of the dorsal portion of the scapholunate ligament.

The diagnostic hypothesis was a scapholunate ligament injury of the wrist and ulnar collateral ligament injury of the right thumb,

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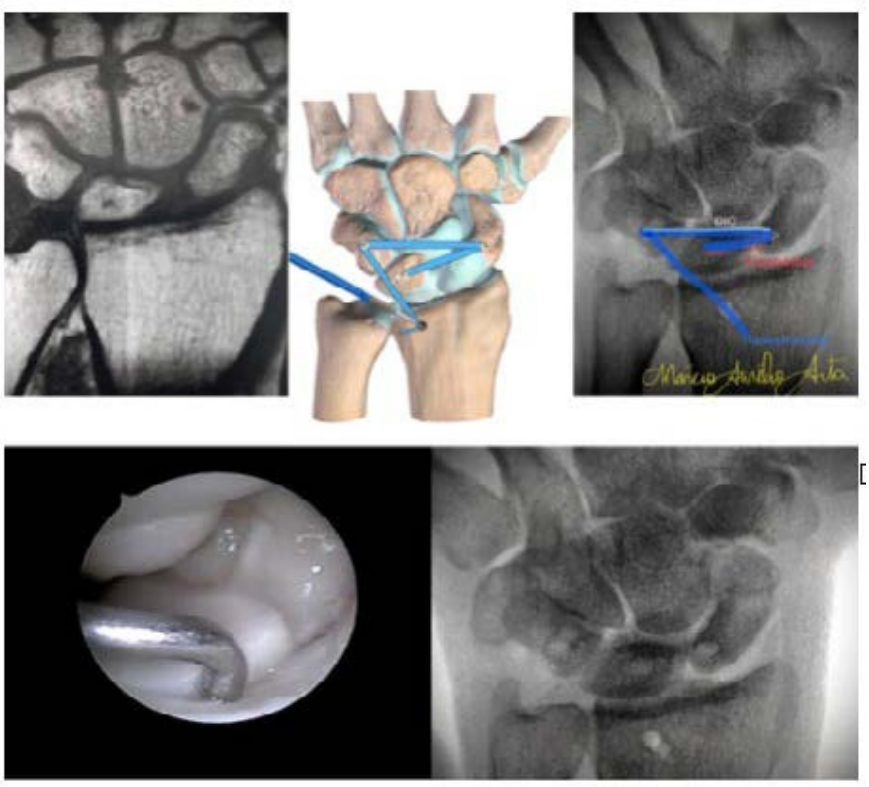
Operative Approach

Adhesion release and arthrofibrosis were performed arthroscopically in the medial region of the metacarpophalangeal joint to correct stiffness in the joint of the right thumb.

At the same time, ligament reconstruction of the medial collateral of the thumb and scapholunate of the wrist was performed arthroscopically and using a ligament augmentation device.

The procedure was completed with percutaneous application (through the arthroscopy portals) of **Dynavisc® Adhesion Barrier Gel** (FzioMed®, San Luis Obispo, USA) in the entire surgical plane of the wrist and thumb.



Mid-surgery images of a scapula reconstruction assisted with arthroscopy.

Follow-up

By the third day postoperatively, the patient had clinical and functional improvement of this right thumb and wrist (less edema, pain, and hematoma). The patient completed physical therapy on a regular basis and fully recovered the stability and mobility of the finger and wrist. The "Watson and "Stress" tests for thumb valgus were negative. The patient returned to daily life activities in one week and sports activities three months postop. She was discharged from the outpatient clinic one year after surgery.

Discussion

Arthroscopy-assisted ligament reconstruction of the medial collateral and scapholunate ligaments is effective, safe, and recommended for active patients. Participating in an effective and specific rehabilitation program was crucial for the patient returning to sports activities about three months after surgery. The use of **Dynavisc®, Adhesion Barrier Gel**, showed better clinical and functional results in the immediate postoperative period (less edema, pain, and hematoma) and also in the long term due to the complete clinical and functional recovery of this patient.