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Adhesion Barrier Gel
for Tendon and Peripheral Nerve Surgery

CASE REPORT

Right Wrist Osteoarthritis

Patient had post-traumatic osteoarthritis in the wrist (SLAC grade 1) and right thumb cyst after a fall.

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Case Introduction

The patient suffered an injury from collapsing (eight months prior to examination), which resulted in a scapholunate ligament injury of the right wrist. She presented with pain, decreased handgrip strength, and difficulty performing daily activities.

Case Presentation

Physical exam demonstrated pain, edema, and limitation of movement in the dorsal region of the wrist and cyst in the DIP (distal interphalangeal) joint of the right thumb.

Palpation confirmed a firm and elastic nodule in the dorsal region of the DIP joint of the right thumb and pain in the dorsoradial region with "deficit" flexion of the right wrist joint.

MRI imaging of the right wrist and thumb revealed:

- A 0.9x1.2mm nodule in the dorsal region of the DIP joint of the thumb within the subcutaneous cellular tissue plane.
- Effusion in the radiocarpal joint of the wrist.
- A partial lesion of the dorsal portion of the scapholunate ligament.
- Osteophytes on the margins with decreased joint space surrounding the styloid process of the radius.

The diagnostic hypothesis was osteoarthritis of the right wrist (Scapholunate advanced collapse - SLAC Stage 1)with thumb nodule.

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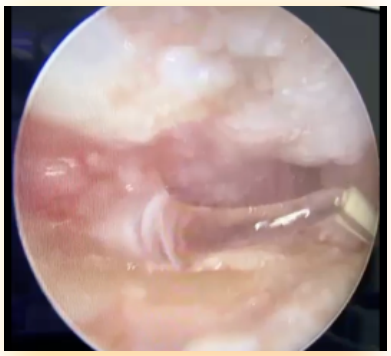
Operative Approach

Arthroscopic Wrist Synovectomy and Dynavisc application



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The joint lesions in the wrist were addressed via osteophyte resection, as well as re-tensioning 'Thermal Shrinkage' of the scapholunate ligament. Arthroscopically, a synovectomy of the dorsal capsule and an osteochondroplasty of the chondral lesion of the scaphoid were performed.

At the same time, a resection of the dorsal node of the right thumb was performed. The final step of the procedure was the percutaneous application (through arthroscopy portals) of **Dynavisc®** (FzioMed, USA) in the wrist joint.

Follow-up

The patient showed clinical and functional improvement of her right thumb and wrist three days postoperatively, experiencing less edema, pain, and hematoma. The patient attended regular rehabilitation and recovered partial (75%) mobility of the wrist. The patient's wrist was immobilized for two weeks, and returned to daily life activities with a brace, with no sign of disease progression within her second year postop. The anatomopathological examination of the nodule removed from the thumb confirmed it was a benign xanthoma.

Discussion

Arthroscopy-assisted osteochondroplasty and scapholunate ligament re-tensioning are effective, safe, and recommended for active patients. Changing habits and engaging in an effective and specific rehabilitation program were essential for this patient to resume daily life activities. The use of **Dynavisc Adhesion Barrier Gel** resulted in good clinical and functional results in the immediate postoperative period with less edema, pain, and hematoma.