Arthroscopic dorsal capsuloligamentous repair for Isolated lesion of dorsal Capsule of the carpus: an Unknown Entity!

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Prominent role of dorsal radiocarpal ligament (dorsal capsule) (DIC – DRC)
Distal stabilization:
FCR + LigT STT + LigT Scapho Capitate
Only with sectionning of the DIC and DRC (Dorsal capsule) a dorsal intercalated scapholunate instability deformity (DISI) ensued.
ANATOMY
ANATOMY
ANATOMY
Isolated dorsal capsule tear

Normal aspect
Diagnosis

Chronic painful wrist
X-Rays: Normal (rare DISI)
Ct-Scan, Arthro Ct-Scan : Normal
MRI : +/-
Diagnosis

Wrist arthroscopy ++++

Radiocarpal

Midcarpal
Arthroscopic Dorsal Capsuloligamentous Repair

1 thread through 3,4 P, then DWC and ULNAR remnant
Arthroscopic Dorsal Capsuloligamentous Repair

Retrieval through RMCP
Arthroscopic Dorsal Capsuloligamentous Repair

2nd thread through DWC and **RADIAL** remnant
Arthroscopic Dorsal Capsuloligamentous Repair

Retrieval through the same RMCP
Arthroscopic Dorsal Capsuloligamentous Repair

2 threads passing each in one of the 2 remnants of the dorsal distal part of the ruptured SLL

Radial remnant  Ulnar remnant
Arthroscopic Dorsal Capsuloligamentous Repair

Diagram showing the arthroscopic repair of the dorsal wrist capsule with labels for RMCJP, UMCJP, Sc, Lu, 3,4 P, and 6R.
Arthroscopic Dorsal Capsuloligamentous Repair

Knot made outside patient

Pulled inside MCJ by proximal traction
Arthroscopic Dorsal Capsuloligamentous Repair

Second knot subcutaneous in 3,4 Portal
Frontal plane view

ANTERIOR / PALMAR

POSTERIOR / DORSAL
Material

- 12 patients
- 7 men    5 women
- Mean age : 37.4 y
  (range 19 to 55)
- Sports injuries : 5 cases
  unknown trauma : 7 cases
- TFCC associated lesions : 8 cases
RESULTS

Follow-up: 16 months (range 9 to 228)

• **Pain:**
  - No pain in 30 cases (93.7%)
  - Moderate in 2 cases

• **ROM:**
  - Normal flexion–extension in 30 cases (93.7%)
  - Normal pronation-supination in all cases (100%)

• **Strength:**
  - Normal strength in 29 cases (86.3%)
Results

**DASH:**
- **PreOp**: Average 29.72 (range 13 to 44.30)
- **PostOp**: Average 8.33 (range 0 to 20.91)

**Mayo WS:**
- Excellent: 8 cases
- Good: 4 cases
- Average: 0 cases
- Poor: 0 cases
Clinical case
Clinical case
Clinical case
Clinical case
Clinical case
RESULTS
Conclusion

Isolated lesion of dorsal Capsule of the carpus is an unknown entity!

Arthroscopic dorsal capsuloligamentous repair is a really simple technique given excellent results

First step of SL dissociation ?!?