ARTHROSCOPIC RESECTION OF THE ULNAR HEAD (ARTHROSCOPIC WAFER) IN ULNAR IMPACTION SYNDROME

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ULNAR IMPACTION SYNDROME

- Part of axial stress of the wrist on ulno carpal compartment:
  - Normal variance: 18%
  - +2.5mm: 42%
- Secondary lesions:
  - TFCC lesions
  - Lunotriquetral chondromalacia
  - Lunotriquetral ligament tear
AETIOLOGIES

• **Traumatic** :
  - Radius malunion
  - Sequelae of osteoligamentous lesions (Galeazzi, Essex Lopresti)
  - Radial head resection, wrist arthrodesis

• **Congenital** : ex: Madelung
• Ulnar side wrist pain (radial deviation++)
• Painfull compression of the TFCC
• Nakamura stress test
• Sloshing test of the ulnar head
OUR SERIES

- Wafer procedure
- From September 2005 to May 2018
- Monocentric
- Single surgeon
- After at least 3 months of failure of medical treatment
- X-ray, MRI/arthroscan
SURGICAL TECHNIQUE

- 2.7 mm optic, 30° angulation, with a short 8cm sheath
- Whipple tower, Japanese nylon finger cots
- Optical 3-4 approach, instrumental 4-5 or 6R approach
- The water outlet was provided by a 6U needle

**Diagnostic time:** chondral lesions, TFCC, LTL
SURGICAL TECHNIQUE

THERAPEUTIC TIME:

• CHONDRAL AND TFCC DEBRIDEMENT

• 2.9 MOTORIZED BURR, INVERTED DOME RESECTION, NEUTRAL, FULL PRONATION AND SUPINATION

• RESPECT OF THE DISTAL RADIO-ULNAR JOINT
POST-OPERATIVE MANAGEMENT

• **Short cast immobilization**: 3 weeks

• **Rehabilitation**: after 6 weeks post-op, physical therapy program (range of motion, strength)

• **Return to sport training**: 2 months
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• **Follow up**: 3 weeks, 3 months → *Clinical examination*

• **Long term evaluation**: telephone interview: *Quick Disabilities of the Arm, Shoulder and Hand (QDASH)*, *Patient Rated Wrist Evaluation (PRWE)*

➔ **Patients satisfaction**, main evaluation criterion

• **Objectives**:
  - Evaluation of long term patients satisfaction
  - Post-fracture vs congenital
EPIDEMIOLOGY

• 83 patients
• Mid age: 47.5y
• Aetiology: 61% congenital, 33% post-fracture, 6% Madelung or iatrogenic
• Distal radio ulnar index: +2.1 mm
• 16 months of symptoms before surgery
LONG TERM EVALUATION

- 39 patients answered, follow up 67 months
- 95% pain relief
- Quick DASH : 9.7/100, PRWE : 13.9/100
- Subjective evaluation of grasping : 81%
- Would you recommend this intervention to your entourage? 87% « YES »

- Return to work : 42 days
- Return to sport : 69 days

- 2 RUD arthritis, 2 osteotomies

- Congénital vs post fracture : no functional difference
CONCLUSION

- **High rate of patients satisfaction** (pain relief, functional scores)
- **Fast learning curve**
- **Literature**: Lower rate of complications compared to ulnar shortening osteotomy (non union, plate removal...)

→ **Gold standard** for distal radioulnar index < +4mm?

LIMITS

- **Clinical and radiological evaluation?**
- **Lost to follow up**