



BASAL JOINT ARTHRITIS

-Arthroscopic interposition-

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Instrumentation

- **Traction Tower (Whipple) or shoulder holder**

 - Stabilization of the forearm (assistant)

 - Single thumb finger trap (2-4 Kg traction)

- **Mini-fluoroscopy for Xray control**

- **Short-barrel optical :**

 - Smooth trochart

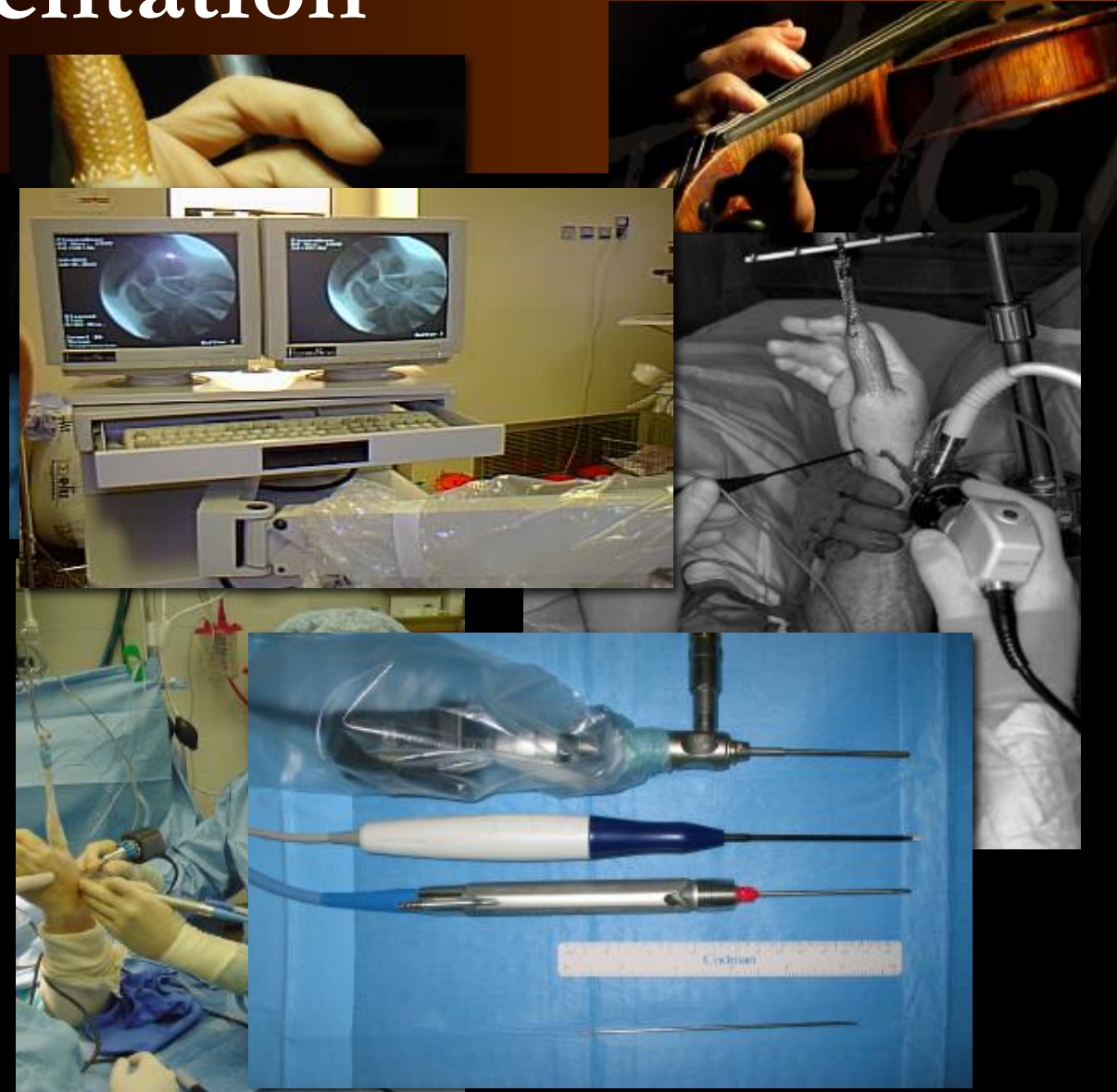
 - Diameter : 1,9 mm or +

- **Specific miniaturized instruments :**

 - Probes, dissectors, graspers, baskets ...

 - Power Shavers and burs

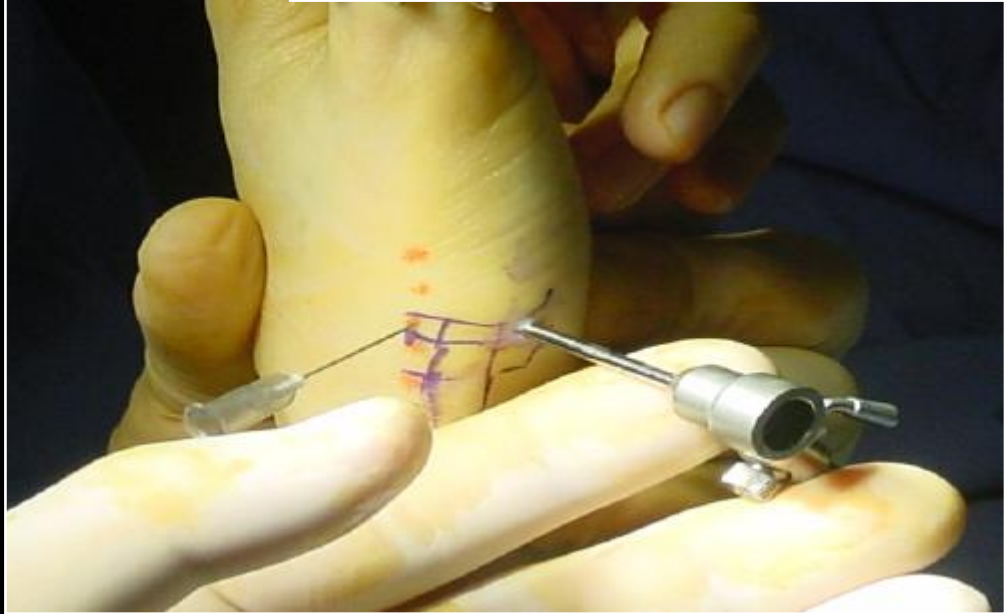
 - Radiofrequency ablation probe (mini VAPR)





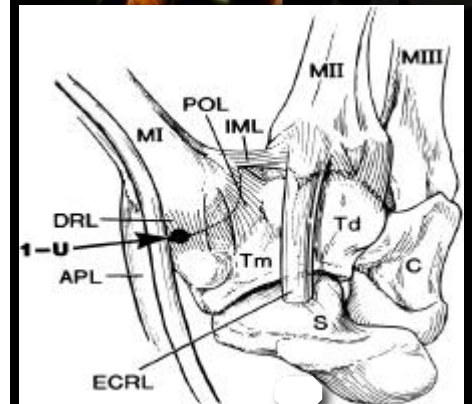
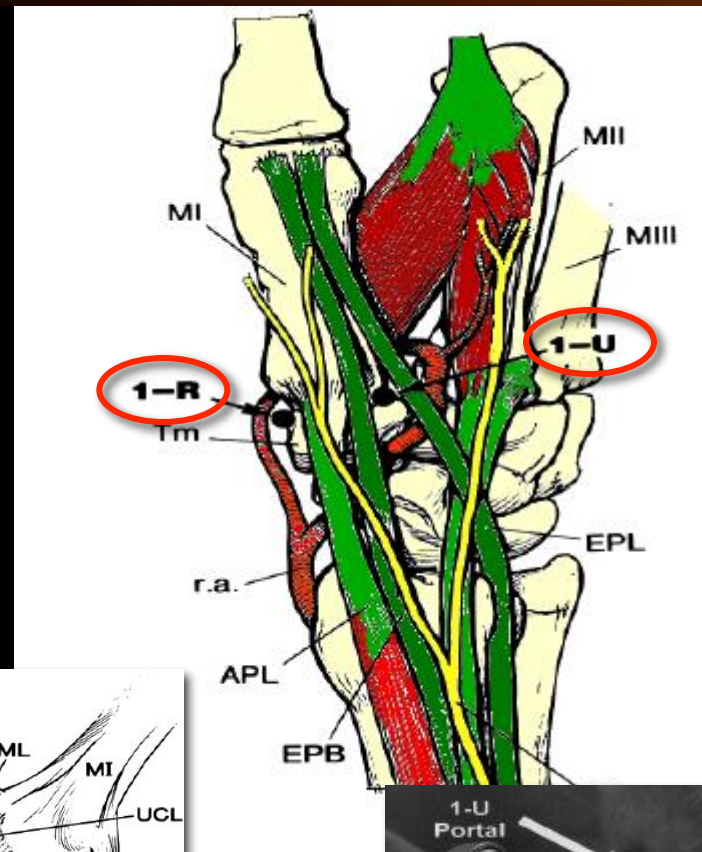
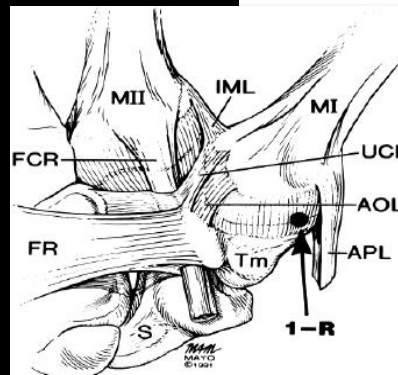
Technique

- Loco-regional anaesthesia
- Tourniquet
- Outpatient surgery
- Thumb traction (2-4 kg)



Surgical Anatomy (CMC joint)

- Portals : 1R, 1U +/- thenar portal
- Pay attention to superficial nerves, radial artery, tendons



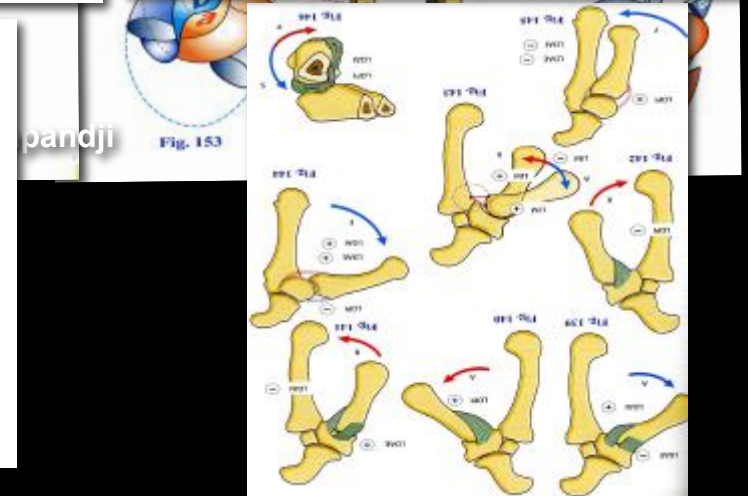
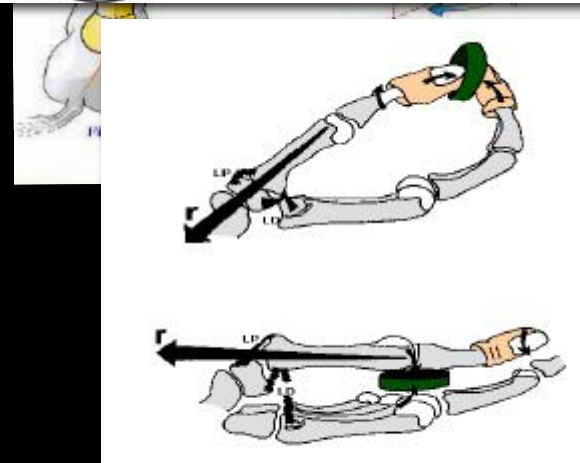
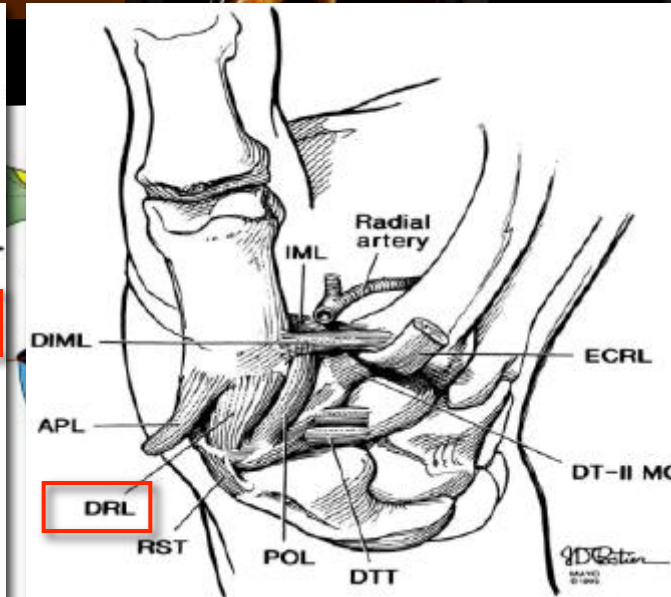
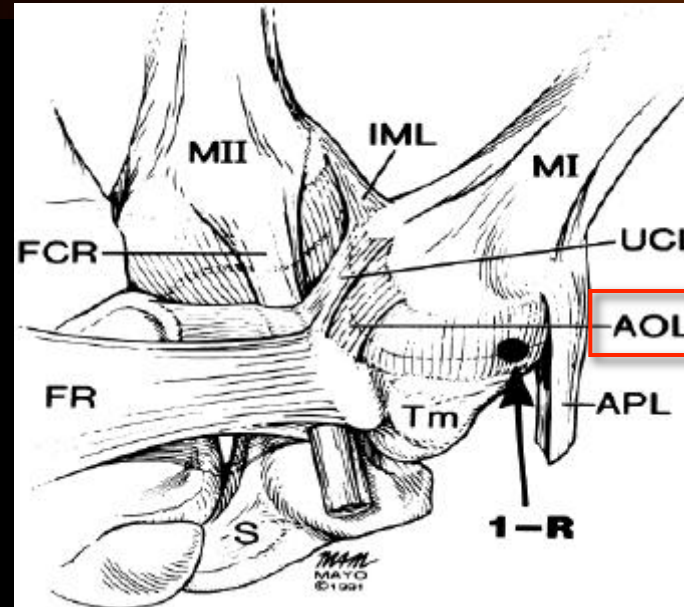
Surgical Anatomy (CMC joint)

- Extrinsic ligaments :

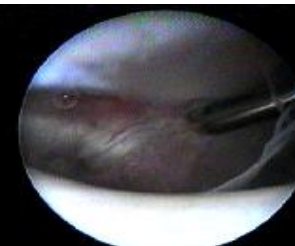
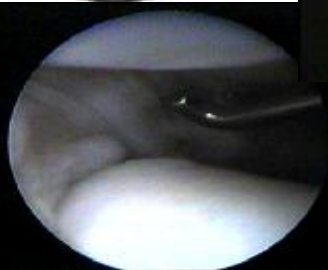
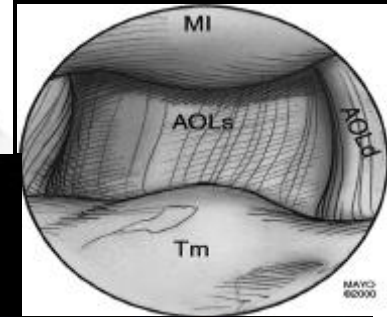
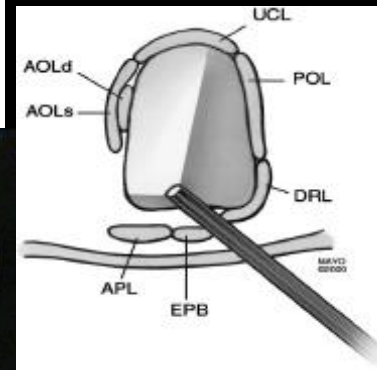
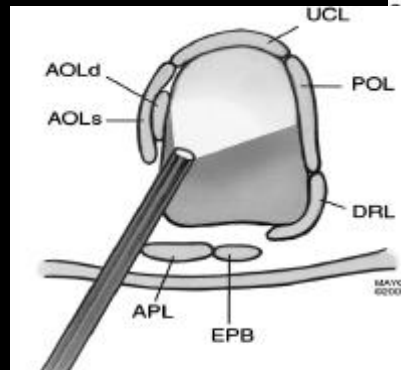
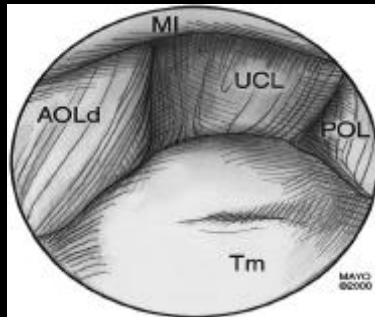
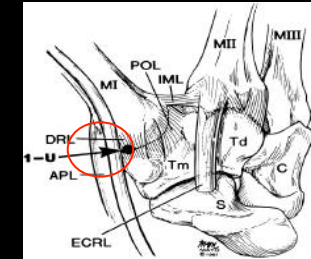
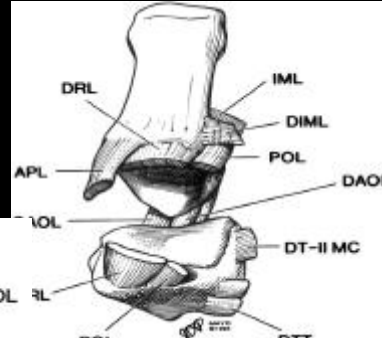
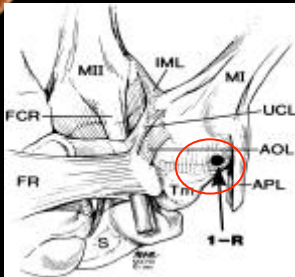
*Controversial physiology
(up to 17 have been described)*

- Cartilages & bones:

Double saddle joint



Diagnostic Arthroscopic CMC Examination

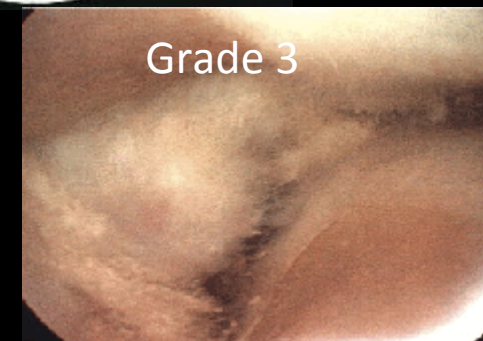
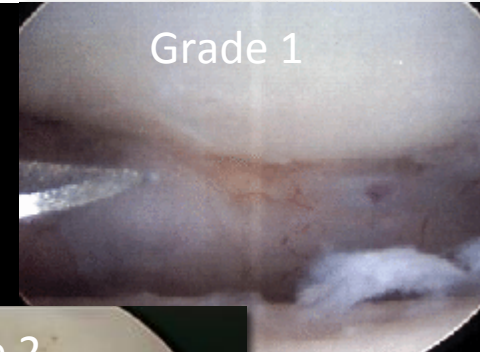
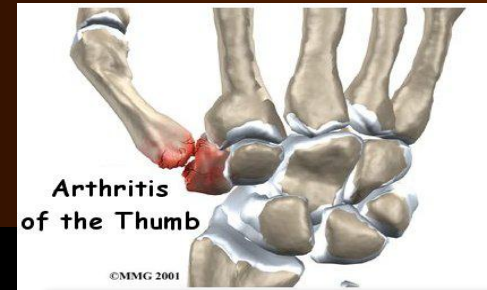


Basal Joint Arthritis

- Diagnosis Ao (Badia's Ao classification) :
 - Evaluation of chondromalacia
 - Ligaments laxity association

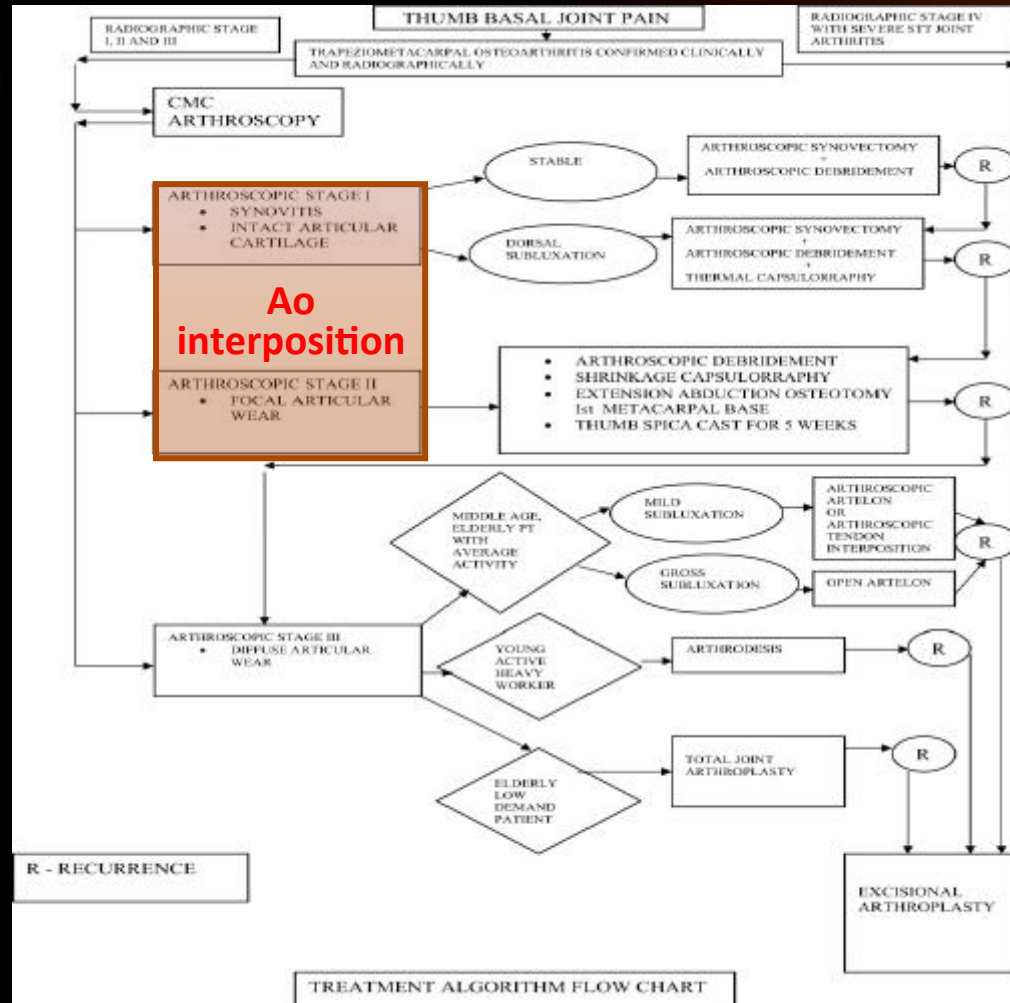
Table 1. Badia Arthroscopic Classification of Basal Joint Arthritis

Stage	Arthroscopic Changes
1	<ul style="list-style-type: none"> • Intact articular cartilage • Disruption of the dorsoradial ligament and diffuse synovial hypertrophy
2	<ul style="list-style-type: none"> • Inconsistent attenuation of the AOL • Frank eburnation of the articular cartilage on the ulnar third of the base of 1st metacarpal and central third of the distal surface of the trapezium • Disruption of the dorsoradial ligament plus more intense synovial hypertrophy
3	<ul style="list-style-type: none"> • Constant attenuation of the AOL • Widespread, full-thickness cartilage loss with or without a peripheral rim on both articular surfaces • Less severe synovitis • Frayed volar ligaments with laxity



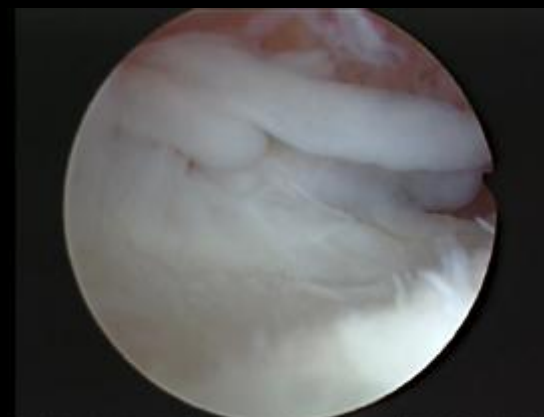
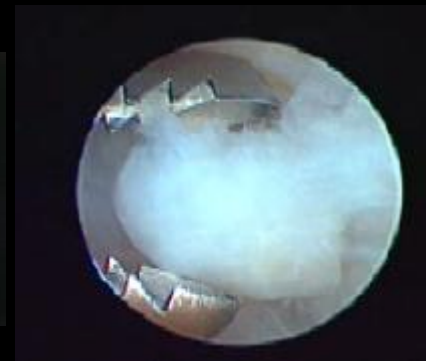
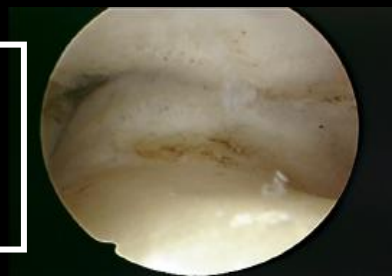
Eaton

Badia's treatment Algorithm



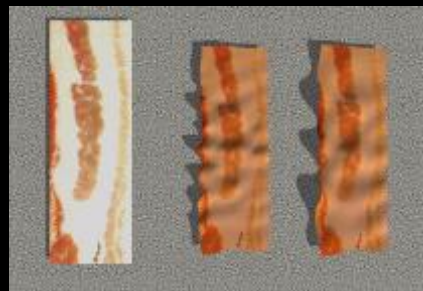
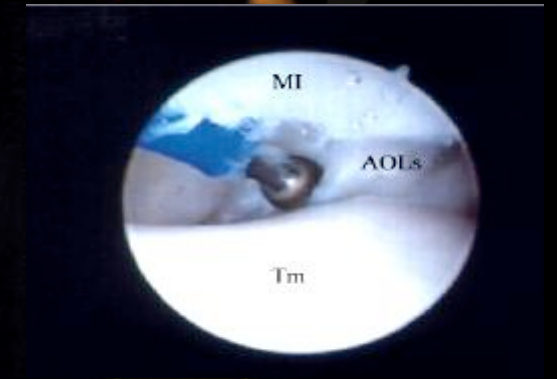
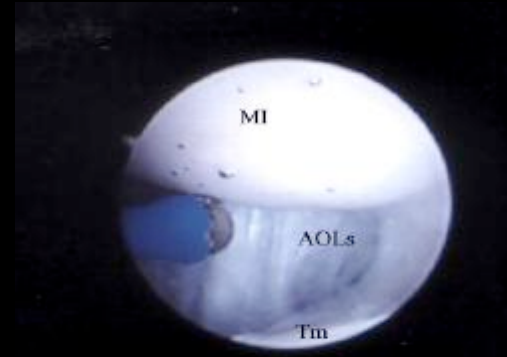
The surgical procedure

- Exploration, Evaluation, Washing
- Debridement (removal foreign bodies)
- Shrinkage
- (+/- Partial trapezectomy)
- Interposition arthroplasty (PLA device or palmaris longus)

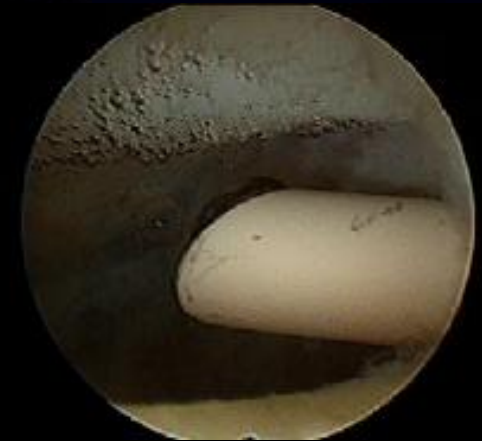


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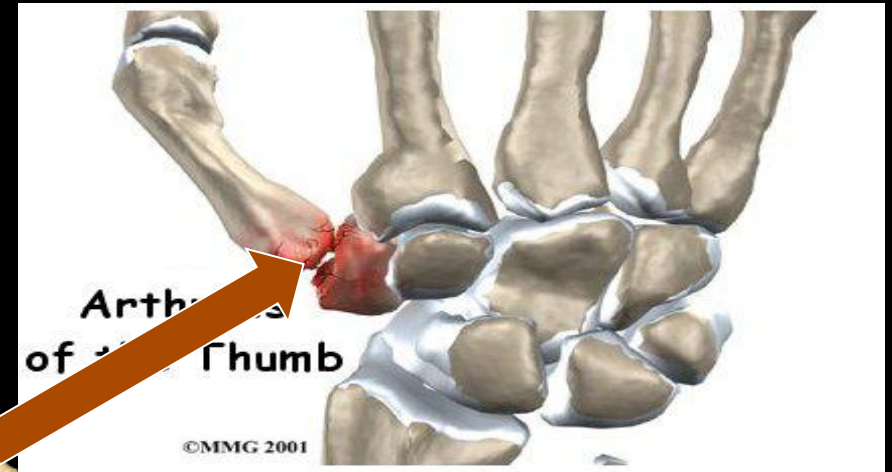


Shrinkage is not cooking !



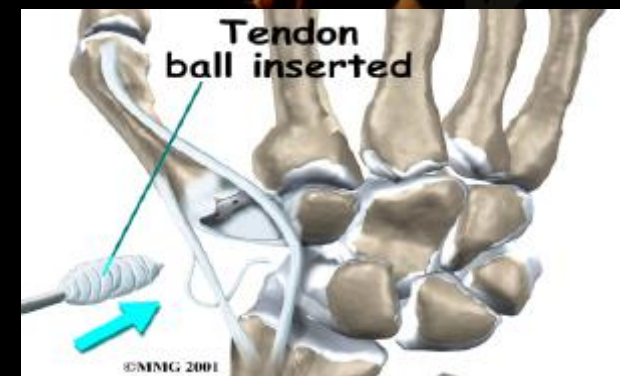
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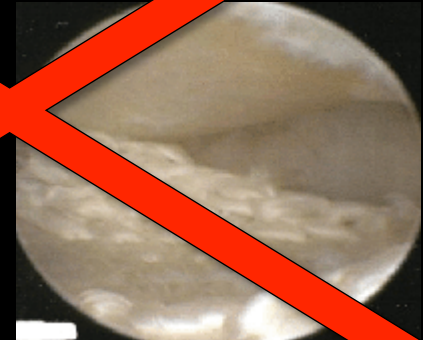
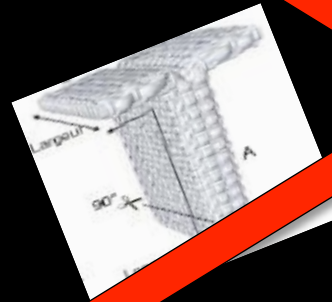


The surgical procedure

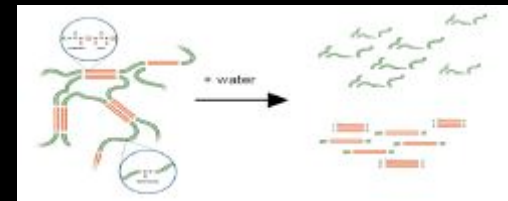
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ARTELON®



No more used: foreign bodies rxns



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Polylactic Acid Implant

- Bio absorbable polymer derivative of natural components (sugar + corn)
- PLA is used in aesthetic medicine and surgery (anchors, sutures, stents...)
- In Vitro and in Vivo studies concluded to:
 - Good tolerance
 - Few reverse effects (loose bodies reactions)
 - Progressive fibro-collagenous colonization

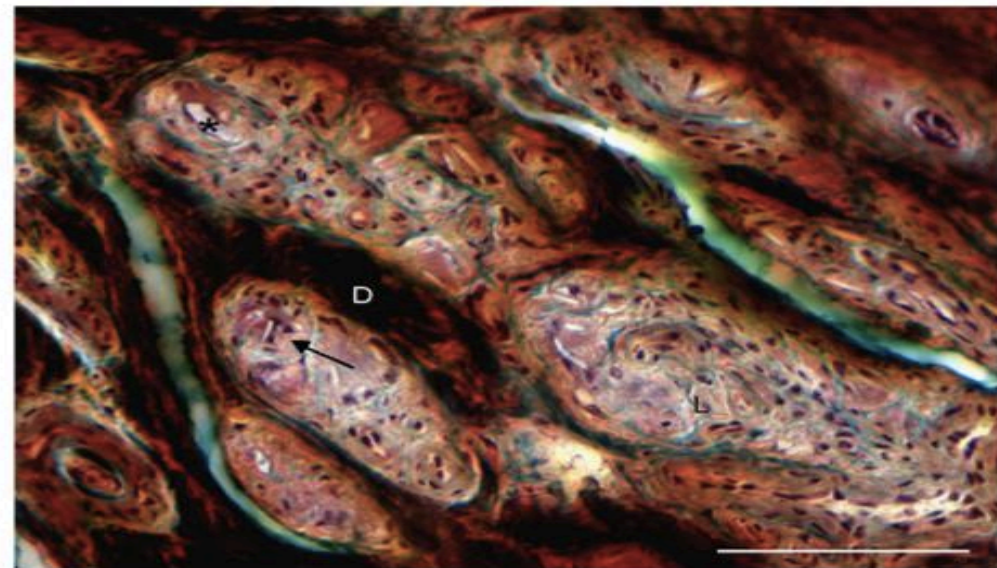


Fig. 7. At 3 years the P(L/D)LA 96/4 joint scaffold had almost totally degraded and been replaced by dense connective tissue (D) with abundant collagen fibres. In some areas, there were patches of cell-rich loose connective tissue with tiny P(L/D)LA 96/4 debris particles (star) being phagocytosed by macrophages and foreign-body giant cells (arrow). Masson-Goldner trichrome; scale bar 100 μ m.

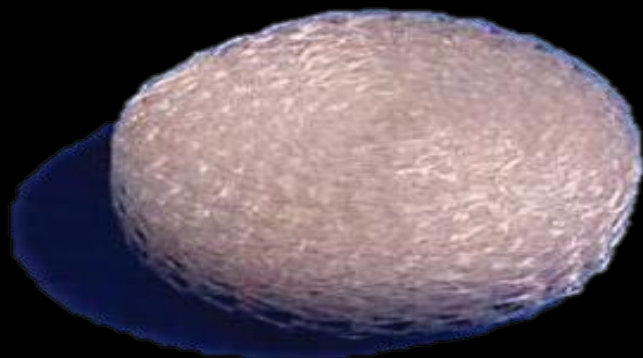


Experience in Basal Joint or Foot Arthritis

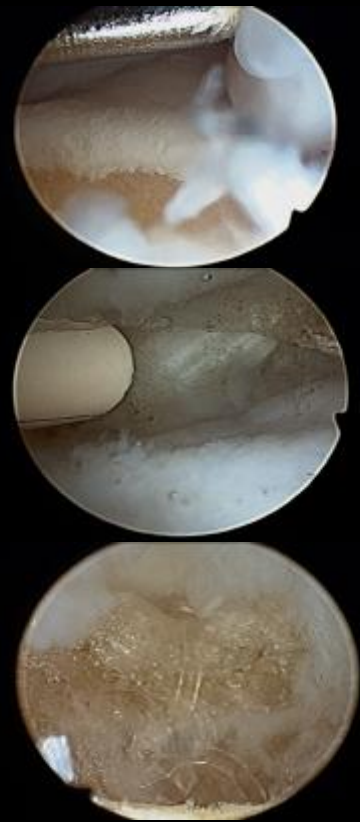
Open surgery (RegJoint®)



- Over 5 years of clinical experience
- More than 300 patients operated
- Very good outcomes
- No loose bodies adverse reactions



The introduction of the device



POST-OP Care

- No K wires, no suture, comfort splint, self rehabilitation





Results of Arthroscopic Interposition Arthroplasty

Simple technique with numerous advantages

- No bone perforation
- No trapeziectomy
- No K-wires
- Realignment of M1/ ligaments tensioning
- Not expensive
- Fast recovering



Conclusion

- Mini invasive reliable non irreversible procedure
- Place to find beside total trapezectomy and prosthesis
- Obvious interest of arthroscopic exploration, grading and debridement
- Larger follow-up will be necessary to confirm these encouraging results

