How I handle the capsule during hip arthroscopy

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Struttura Complessa
Ortopedia e Traumatologia
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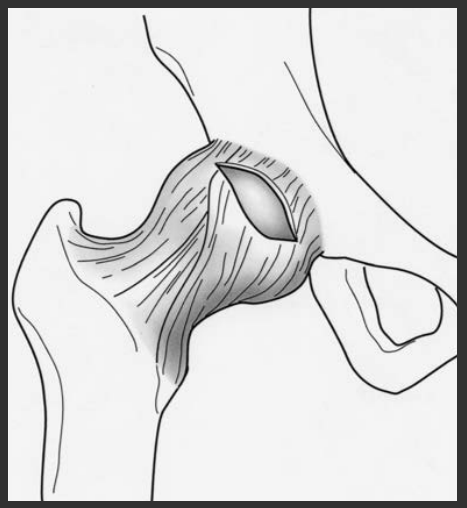
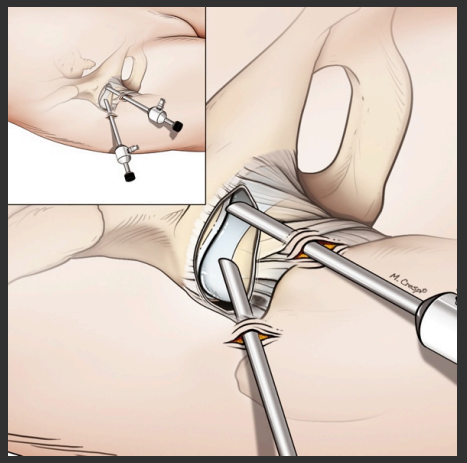
To arthroscopically treat patients with FAI successfully

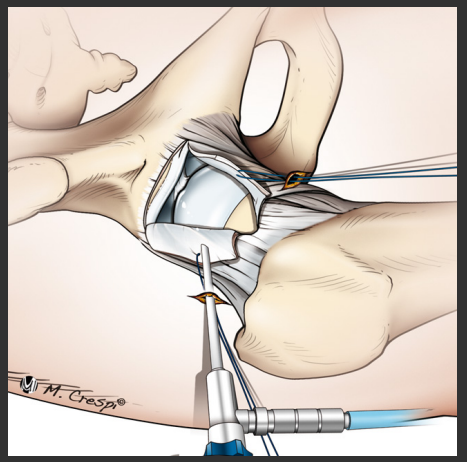
- Expose and address both soft-tissue and osseous pathology
- Incomplete correction of pathology is one of the most cited reasons for failure
- Inadequate capsulotomy and retraction, leading to decreased visualization, are some of the main reasons for incomplete correction
- Capsular opening can compromise hip stability and kinematics
- Capsular management during the arthroscopic treatment of FAI is critical to success

Capsular management techniques during hip arthroscopy

- Capsulectomy
- Limited capsulotomy
- Interportal capsulotomy
  (with or without repair)
- T-capsulotomy
  (with or without repair)







When the hip capsule is incised or resected to improve visualization or working space *(typically for arthroscopic procedures)*

- Microinstability (residual hip pain)
- Hip dislocation

Biomechanical Evaluation of Capsulotomy, Capsulectomy, and Capsular Repair on Hip Rotation

Geoffrey D. Abrams, M.D., Michael A. Hart, B.S., Kaosu Takami, B.S., Christopher O. Bayne, M.D., Bryan T. Kelly, M.D., Alejandro A. Espinoza Orías, Ph.D., and Shane J. Nho, M.D., M.S.

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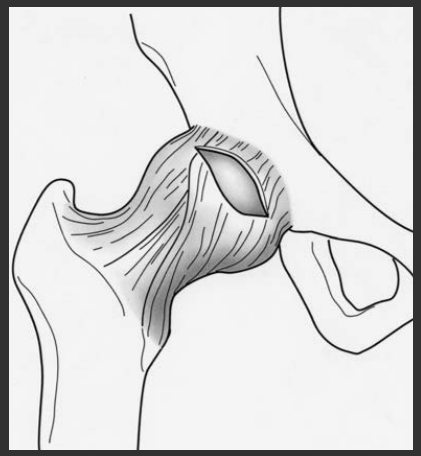
position of the markers in space. The specimens were tested in neutral flexion and 40° of flexion in the following capsular states: intact, interportal capsulotomy, T-capsulotomy, repaired capsulotomy, and capsulectomy. Paired *t* tests and analysis of variance were used with an α value of .05 set as significant. **Results:** With the hip in neutral flexion, there was increased external rotation with a T-capsulotomy (91.1° ± 20.3°, $P = .029$) and capsulectomy (91.9° ± 19.6°, $P = .015$) compared with the intact hip (83.2° ± 20.5°). After complete repair of the T-capsulotomy (87.4° ± 20.6°), there was no significant difference in external rotation compared with the intact hip. No significant differences were seen between groups at 40° of hip flexion. **Conclusions:** A T-capsulotomy showed significantly increased external rotation versus the intact and interportal capsulotomy states. The repaired T-capsulotomy restored the rotational profile back to the native state. **Clinical Relevance:** Many methods of capsular treatment during hip arthroscopy exist. Capsulotomy and capsulectomy do not restore the external rotation restraint of the hip back to its native state.

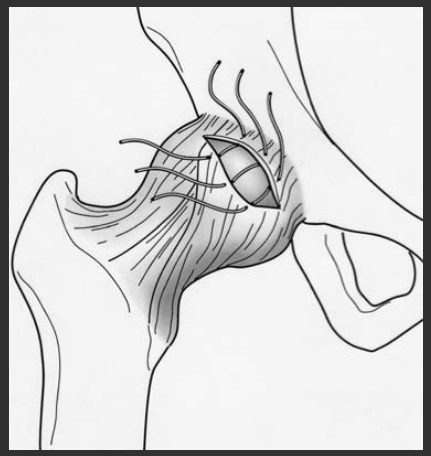
Does the hip capsule heal after arthroscopic capsulectomy or capsulotomy?

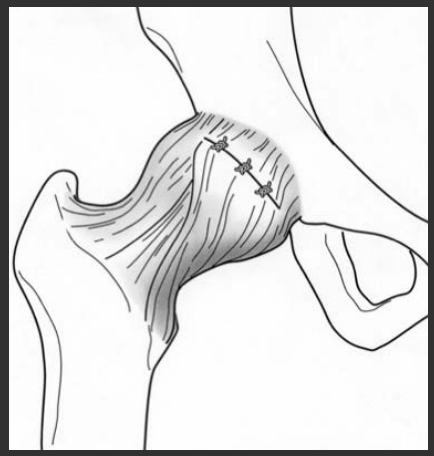
(the iliofemoral ligament is altered. Martin et al. 2008)

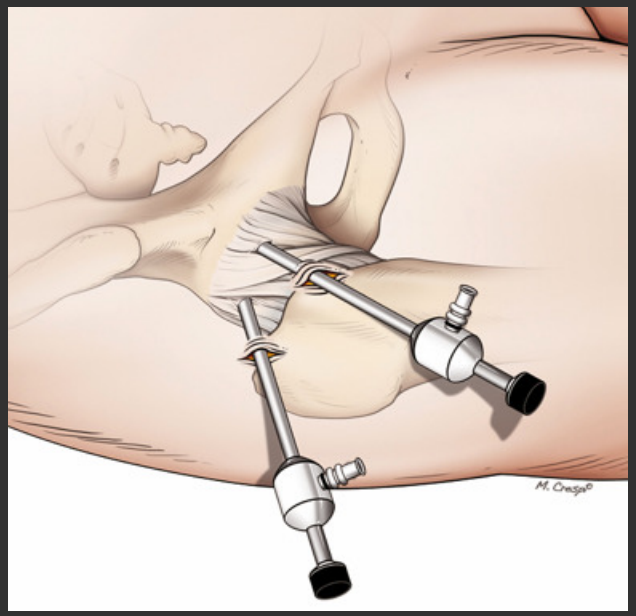
- No published studies
- McCormick et al. (2013) described the presence of focal capsular defects in 7 of 9 patients undergoing revision hip arthroscopy

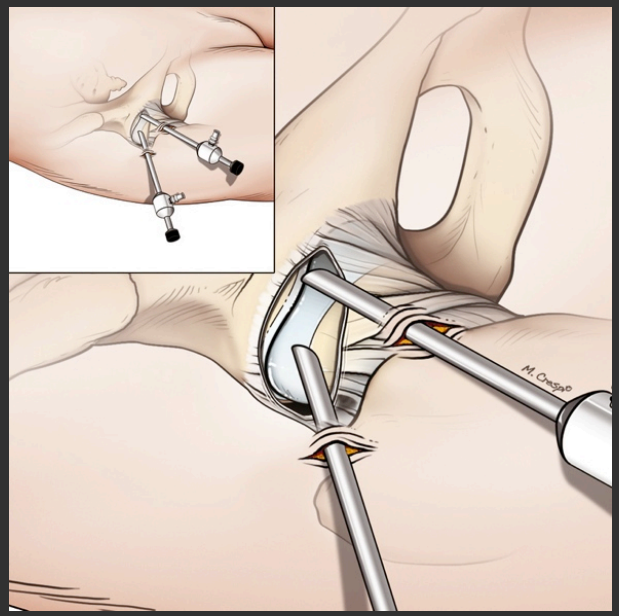
Capsular suture is suitable after capsulotomy not after capsulectomy

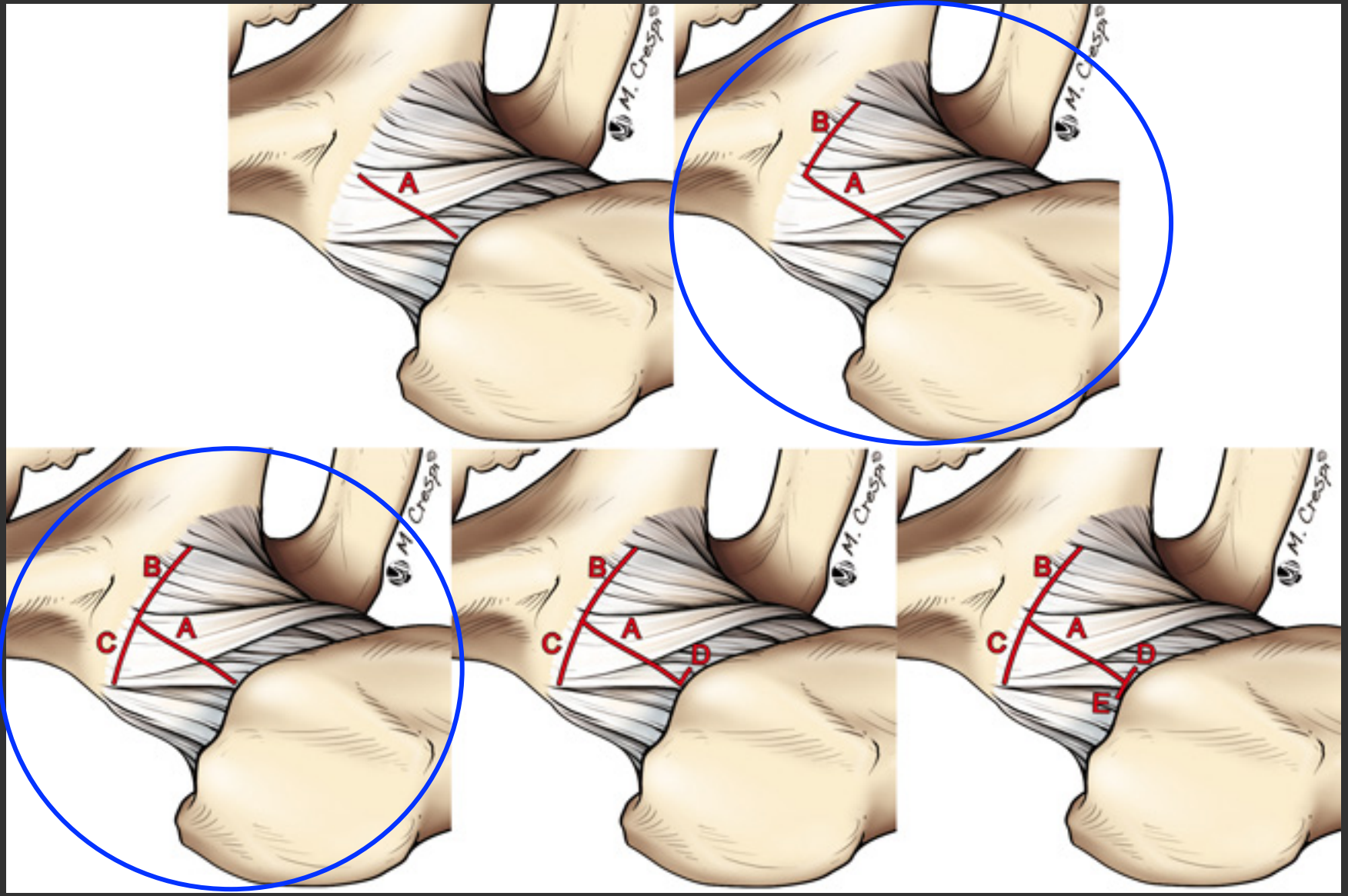








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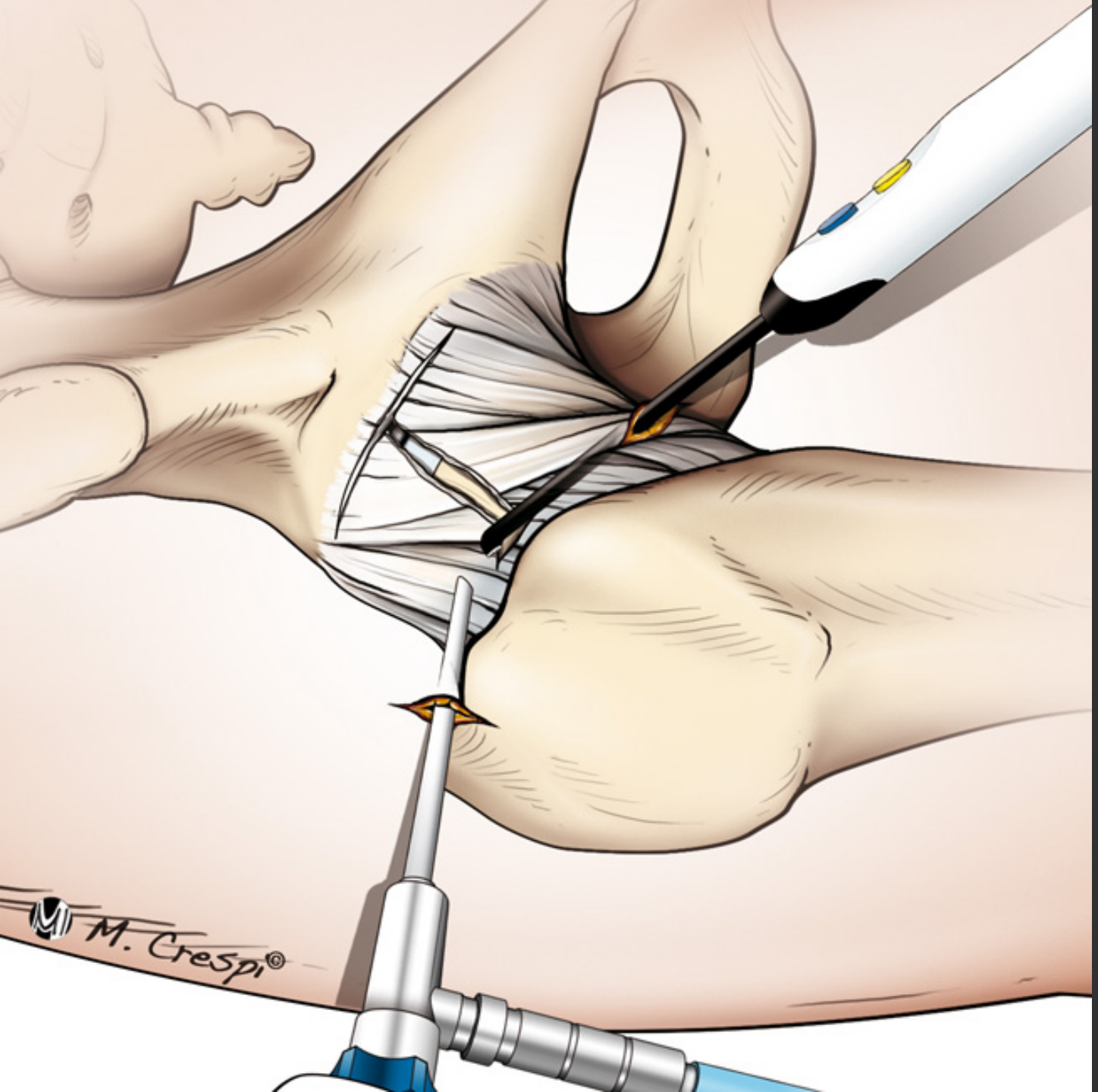
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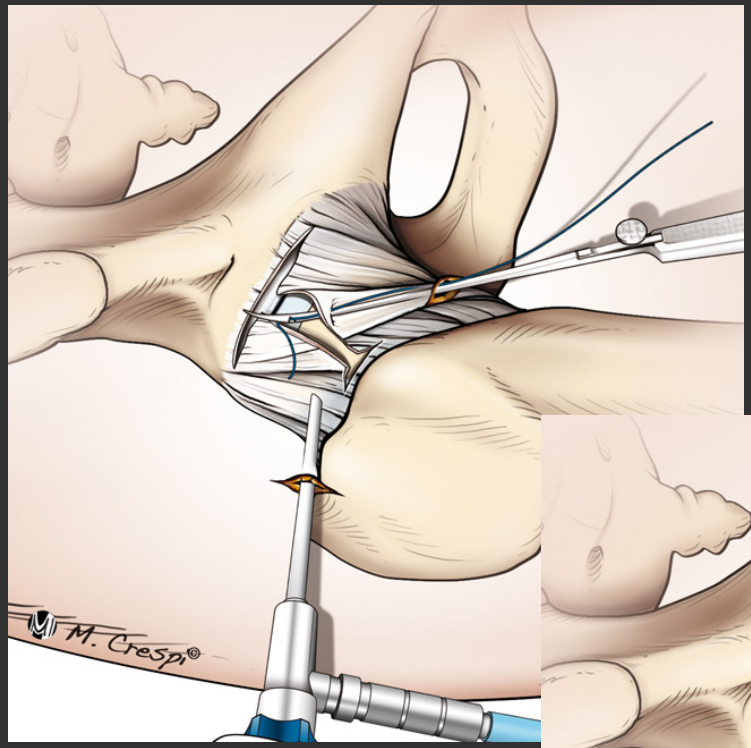
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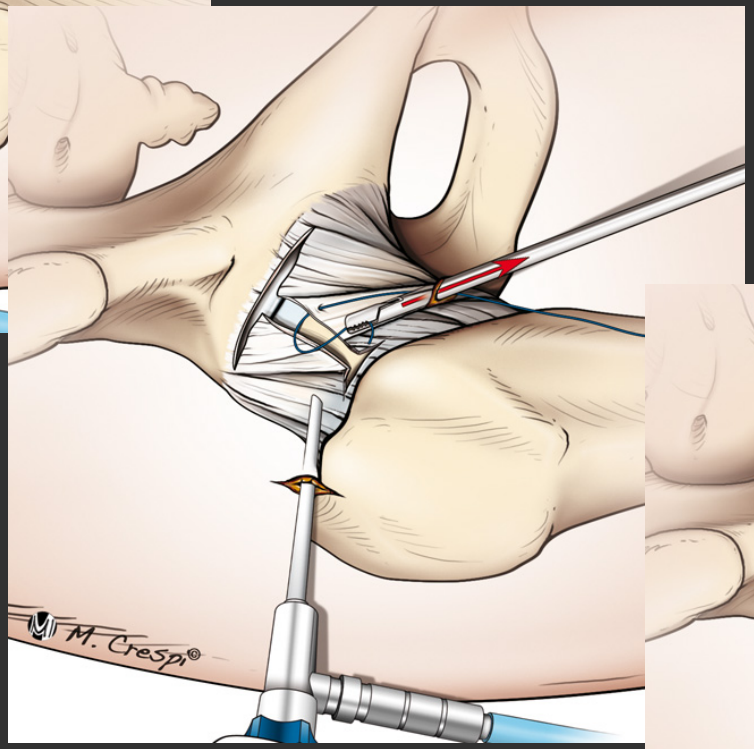
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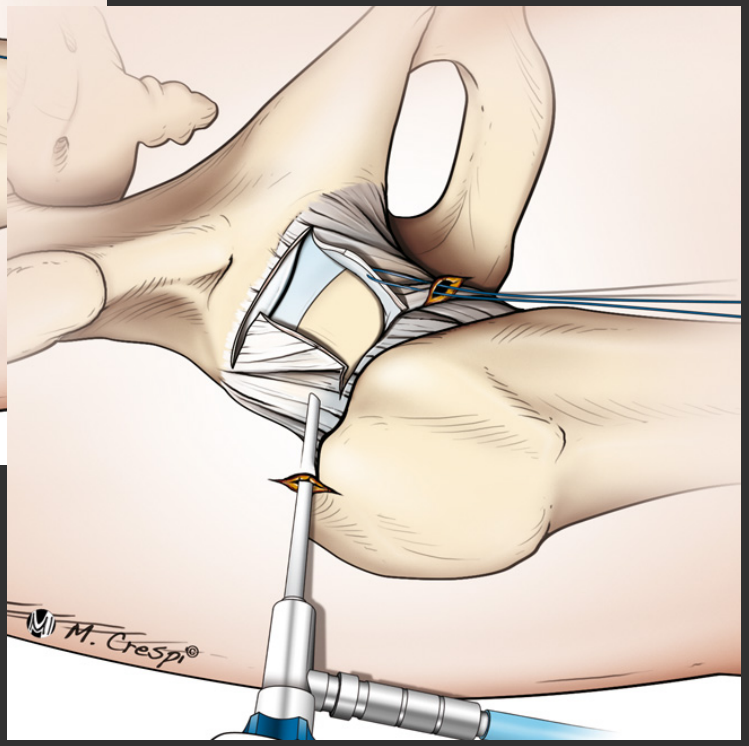
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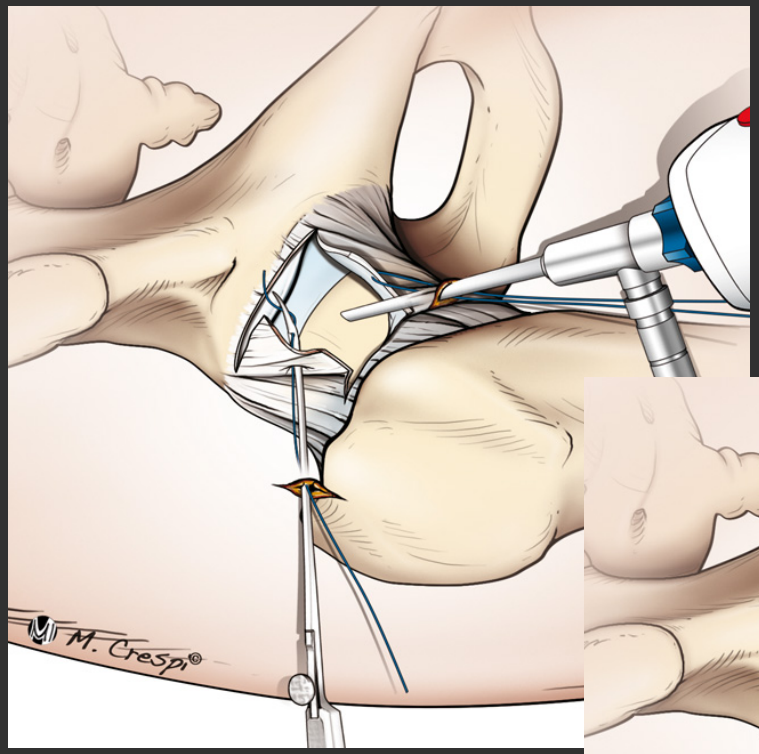
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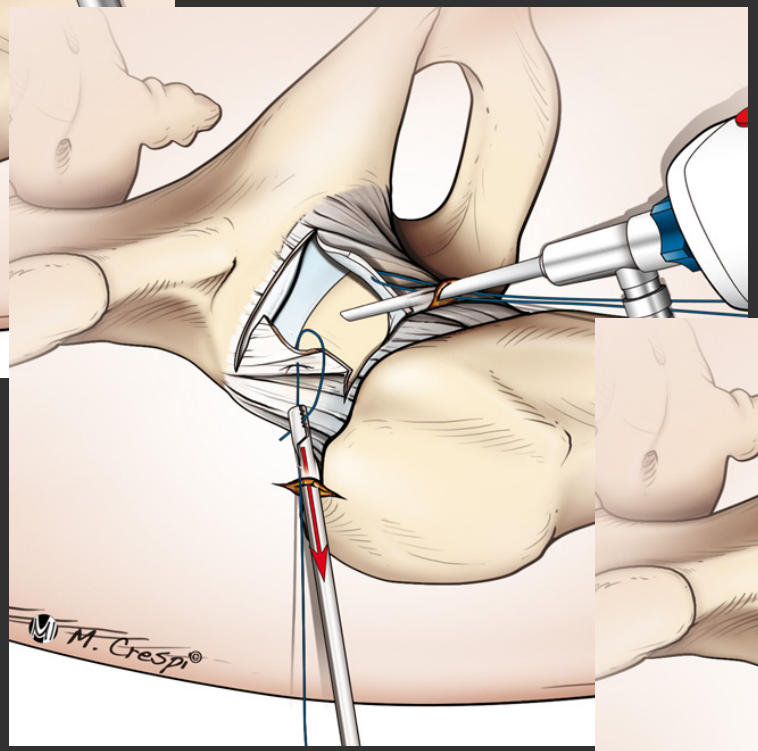
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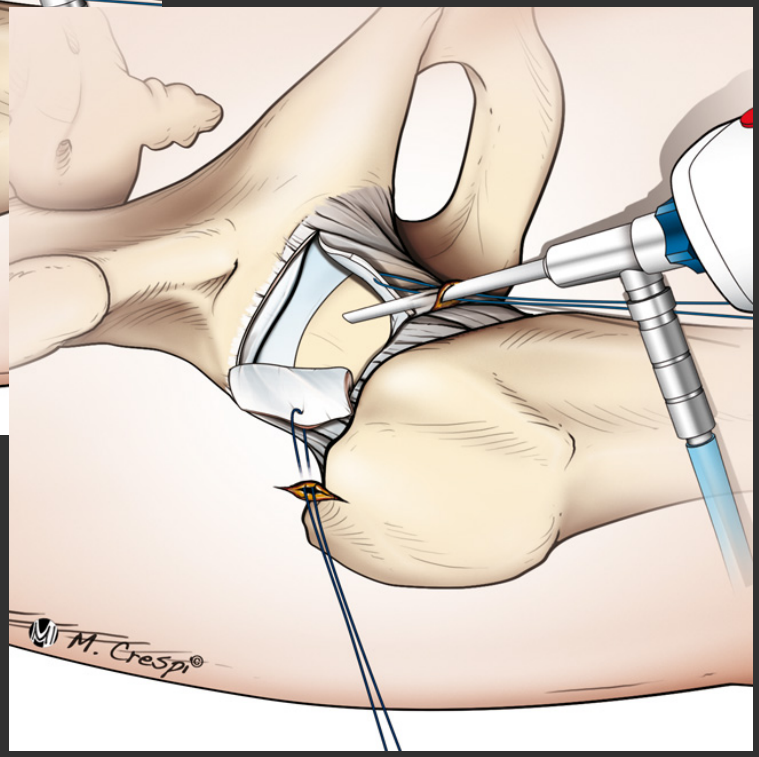
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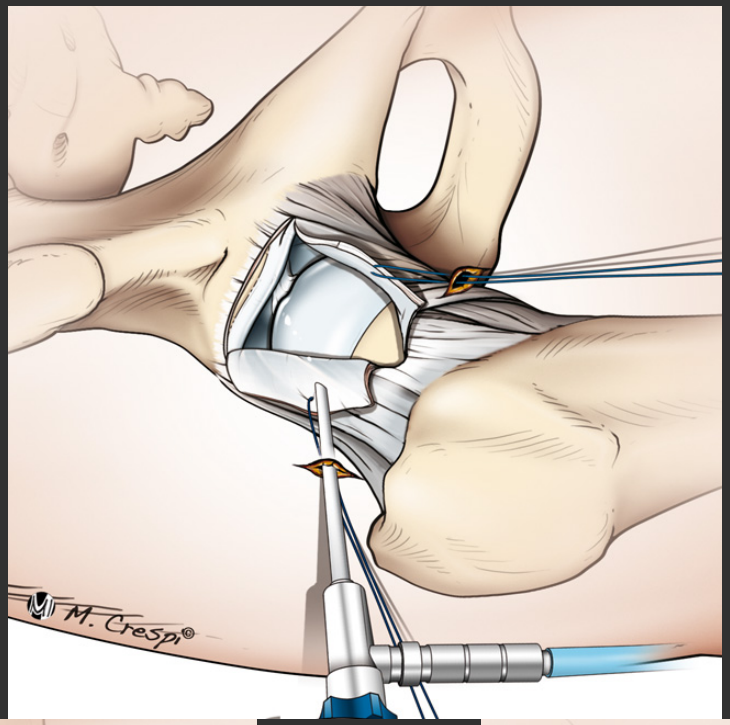
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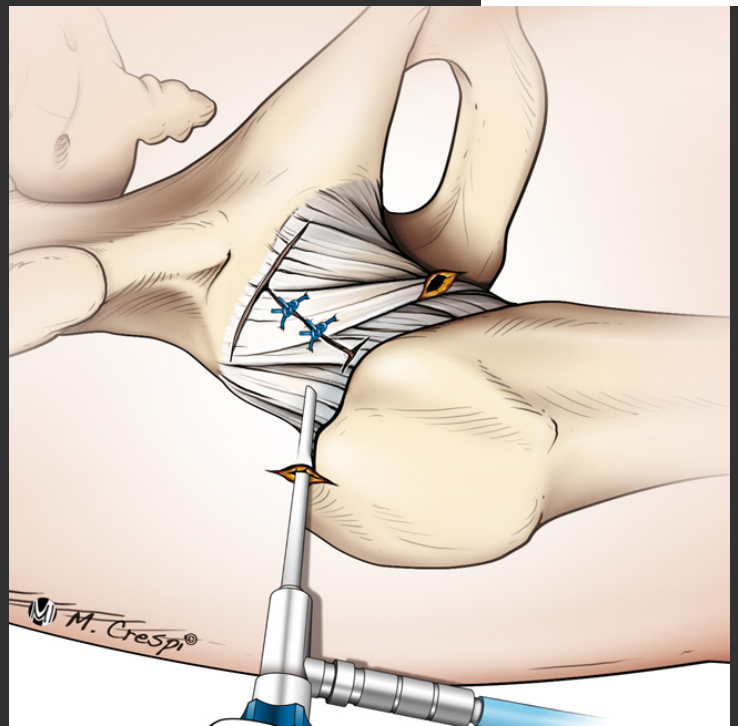
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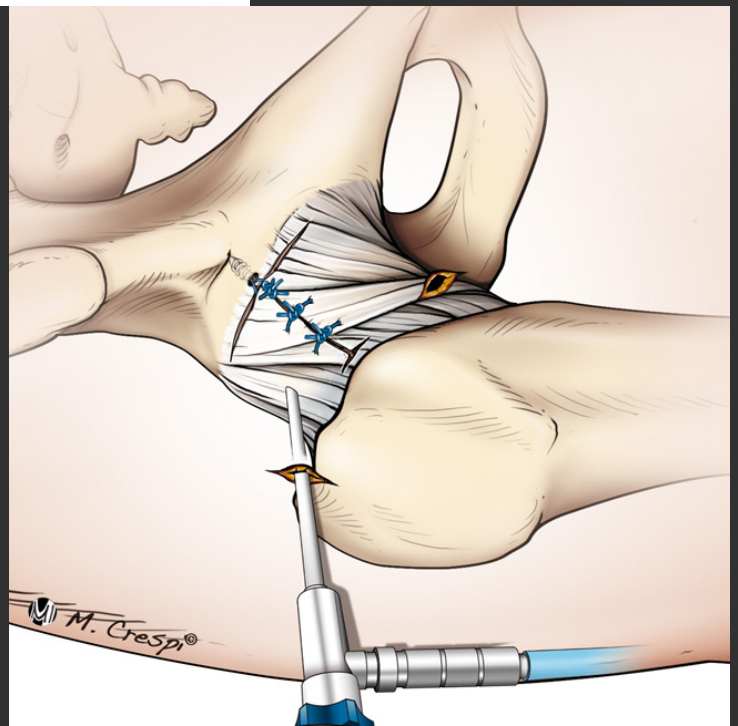
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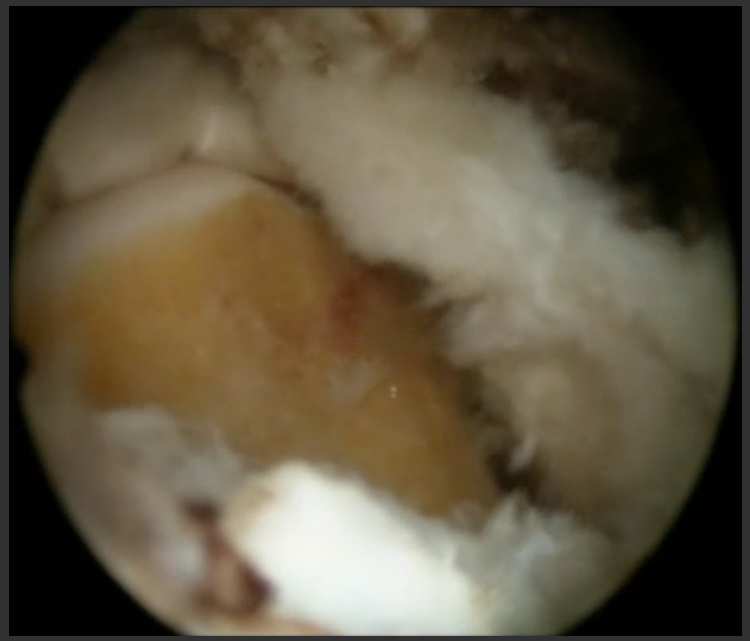
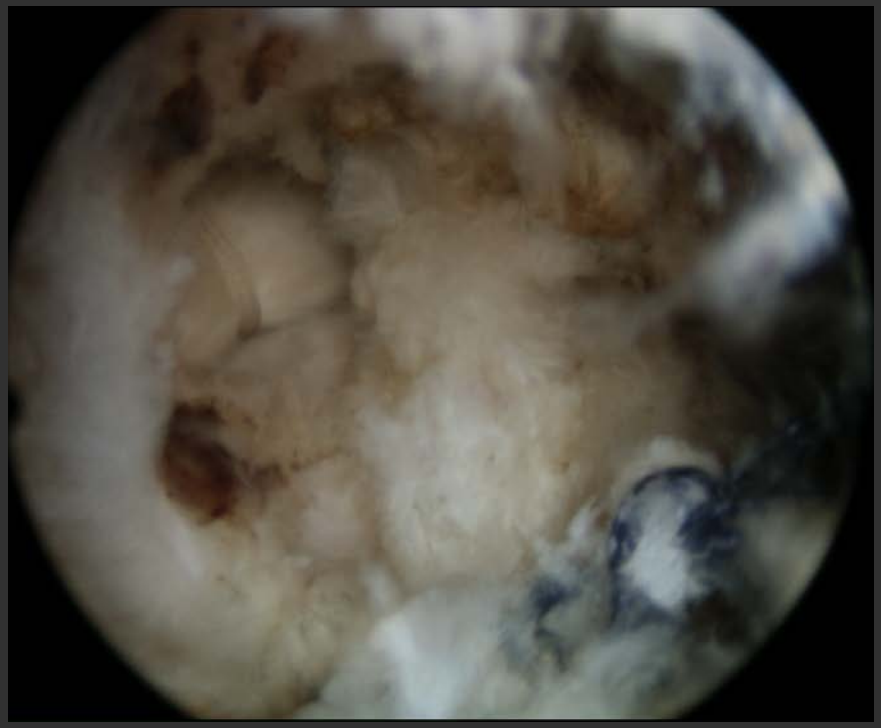
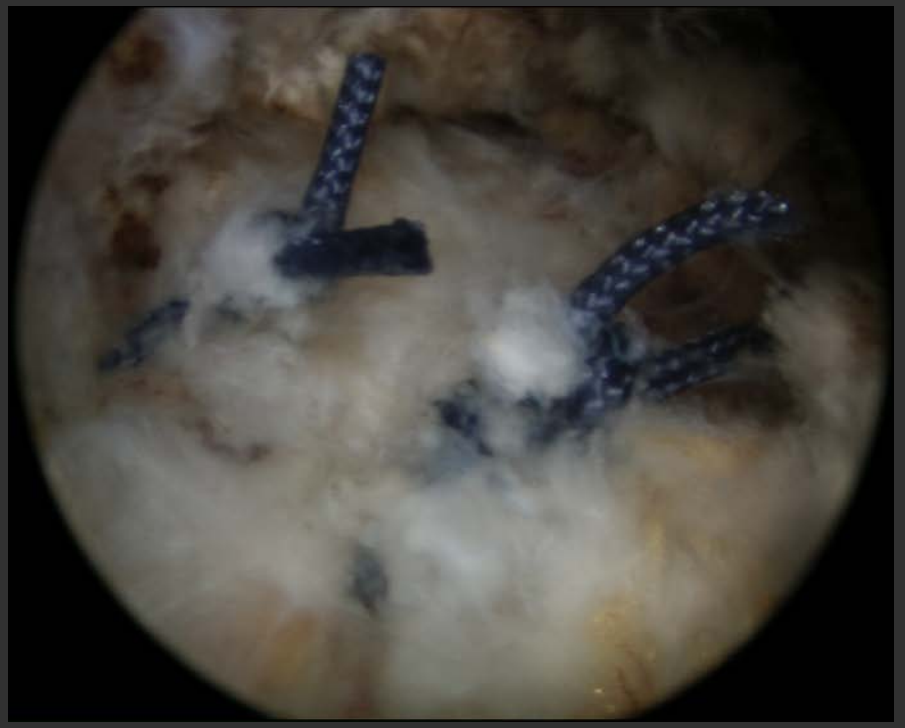
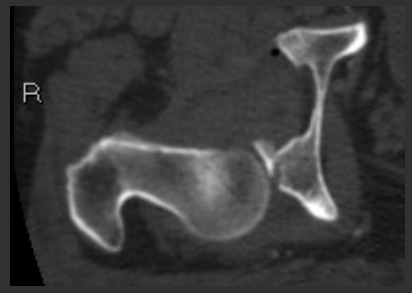


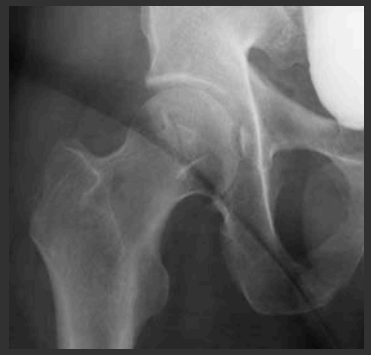
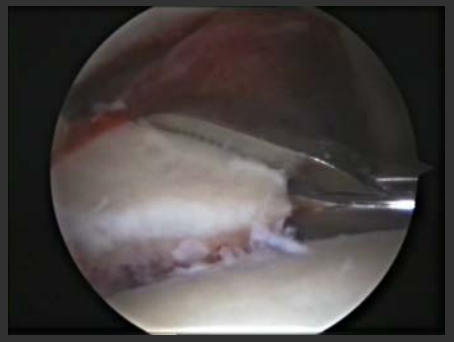




Capsular suture: *indications*

- Osteochondral fragments removal in traumatic hip dislocations
- Previous hip dislocations/subluxation
- Acute or chronic rupture of round ligament
- Hip dysplasia
- Hyperlaxity
- Sport at risk of dislocation/subluxation (gymnastic, dance)




SUMMARY

- At the beginning of the arthroscopic procedure we don't know exactly how big must be the capsular opening to do a good job
- Capsular suture is possible if the capsule was cut, no if resected
- Enlarge the capsular opening by cutting it as necessary to see and to work, then suture the capsule

THANK YOU

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