

Hip Preserving Strategies

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Adult Hip Osteoarthritis

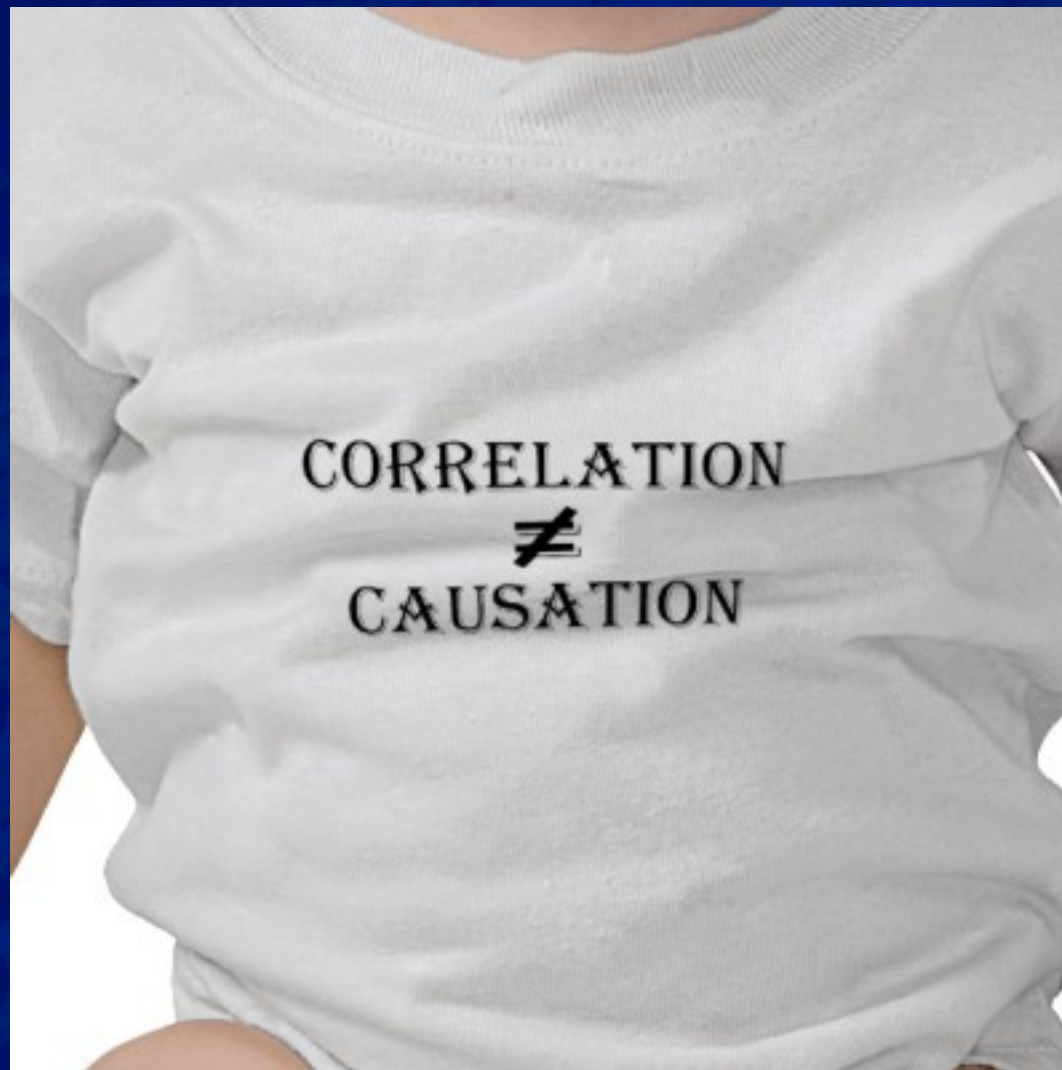
- Up to 90% of Young patients that develop DJD of the Hip have an underlying structural problem
- Primary hip arthritis is extremely rare



Adult Hip Osteoarthritis



Ganz et al, CORR 2008

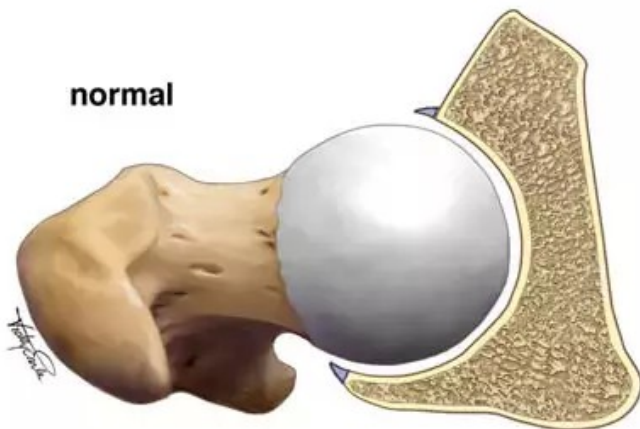


Hip Impingement

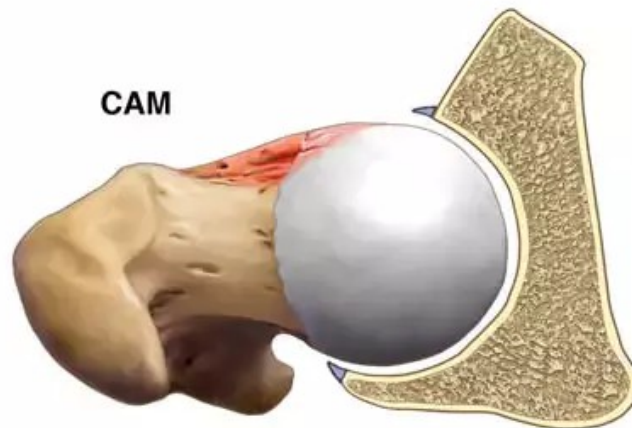
- the abutment between the proximal femur and the rim of the acetabulum
- at the end range of hip motion, particularly flexion



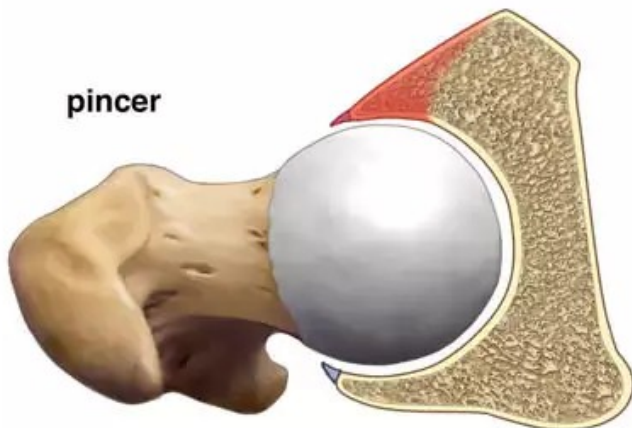
normal



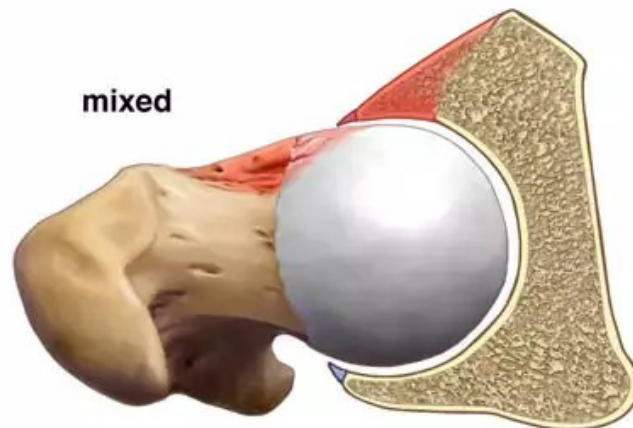
CAM



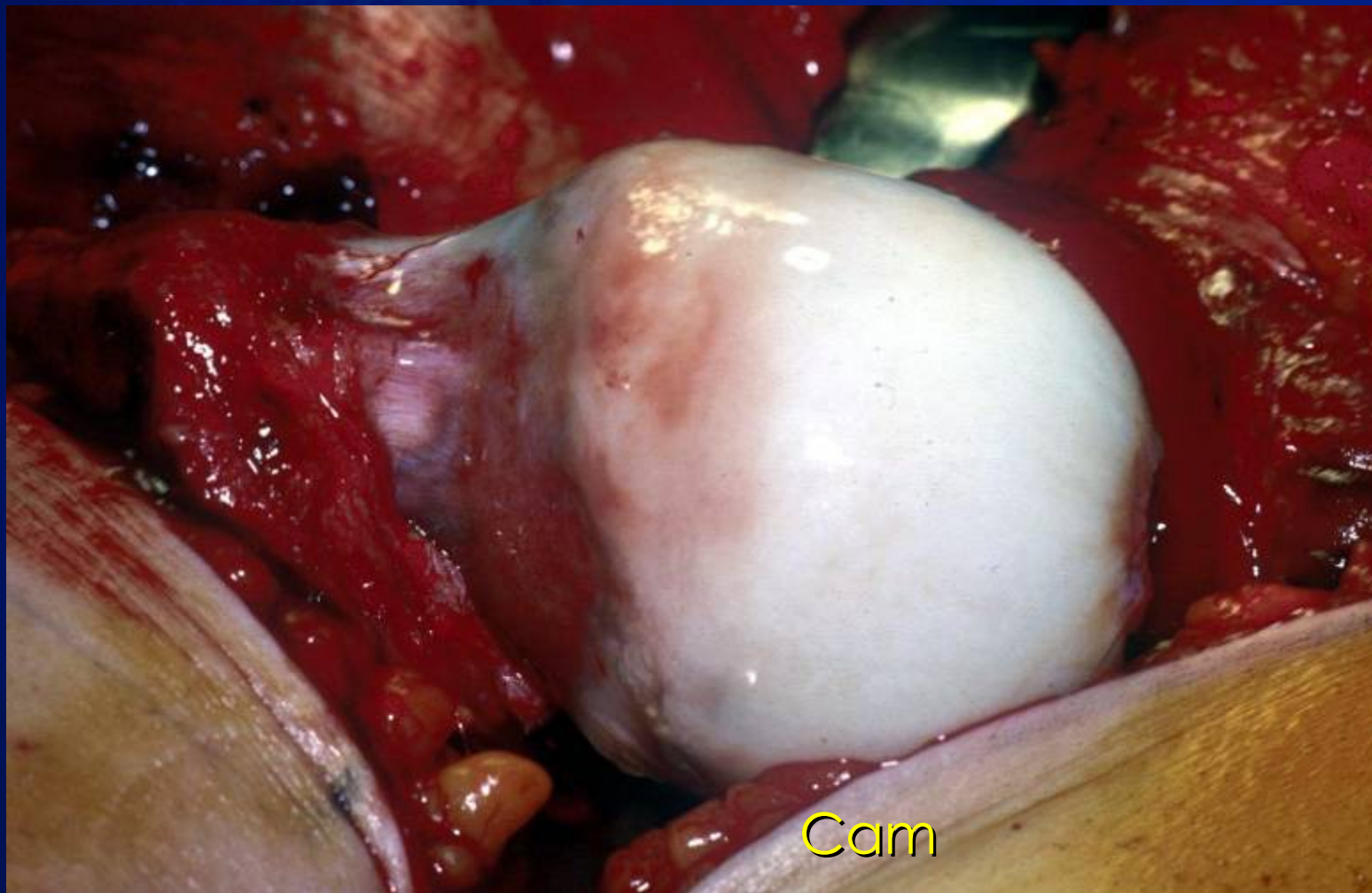
pincer



mixed

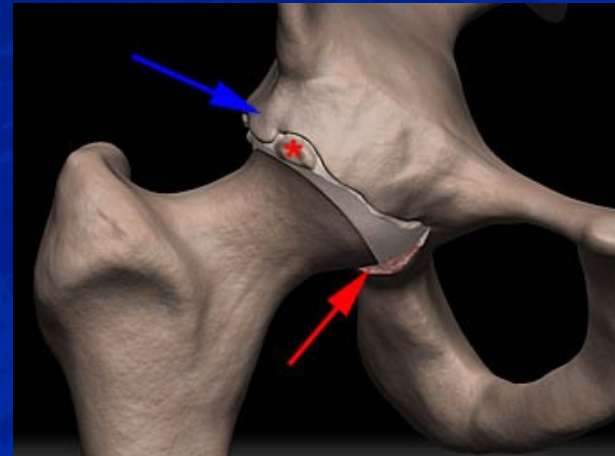


Silent SCFE 21 Year Old



Cam FAI is most common

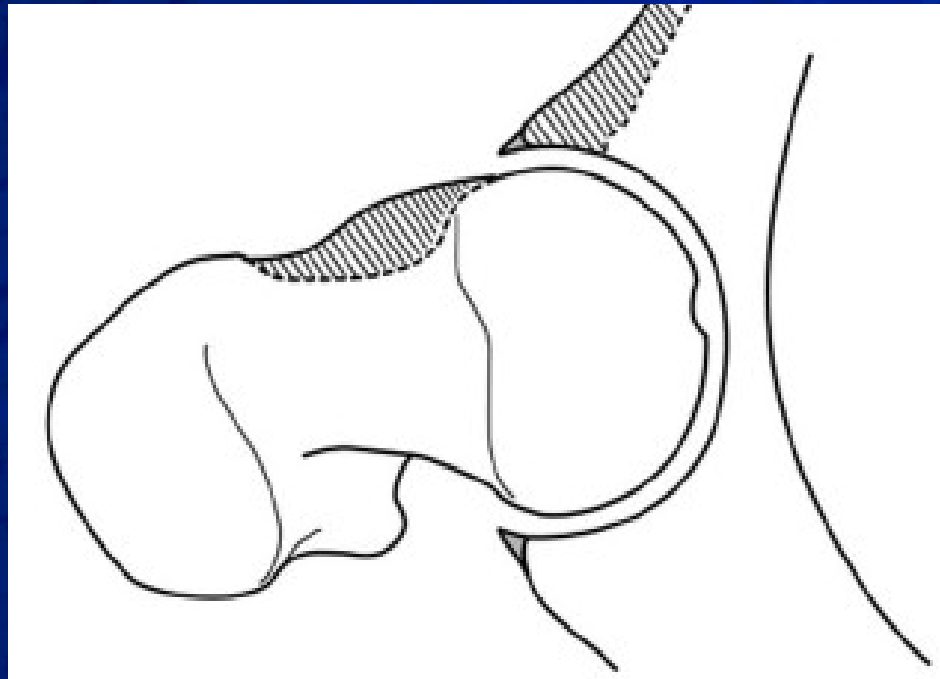
- 47.6% hips cam FAI
- 44.5% combined cam/pincer FAI
- 7.9% pincer FAI



Clohisey JC et al. Am J Sports Med. 2013 Jun;41(6):1348-56.
Descriptive epidemiology of femoroacetabular impingement: a North American cohort of patients undergoing surgery.

Types of FAI

Mixed type



Why does Impingement hurt?

- Chondral Wear
- Chondral Delamination
- Labral tear



FAI Pathoanatomy

- Labral tear 90%
- Acetabular cartilage lesion 80%
- Femoral cartilage lesion 15%



Clinical Symptomatology



The Patient



C-sign

Clinical Examination

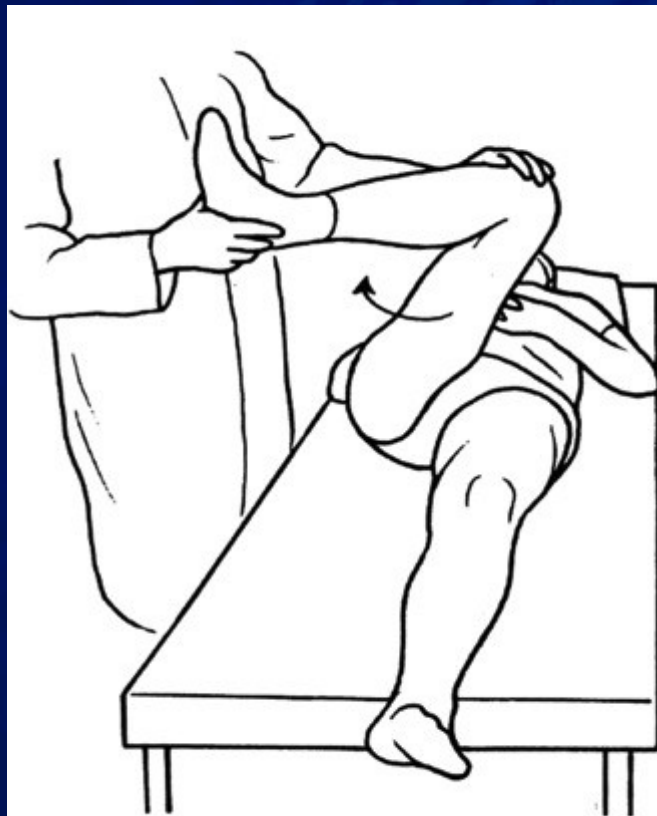


Clinical Examination

- Inspection
- Palpation
- ROM
- Tests



Anteroposterior impingement test



A

Posteroinferior impingement test



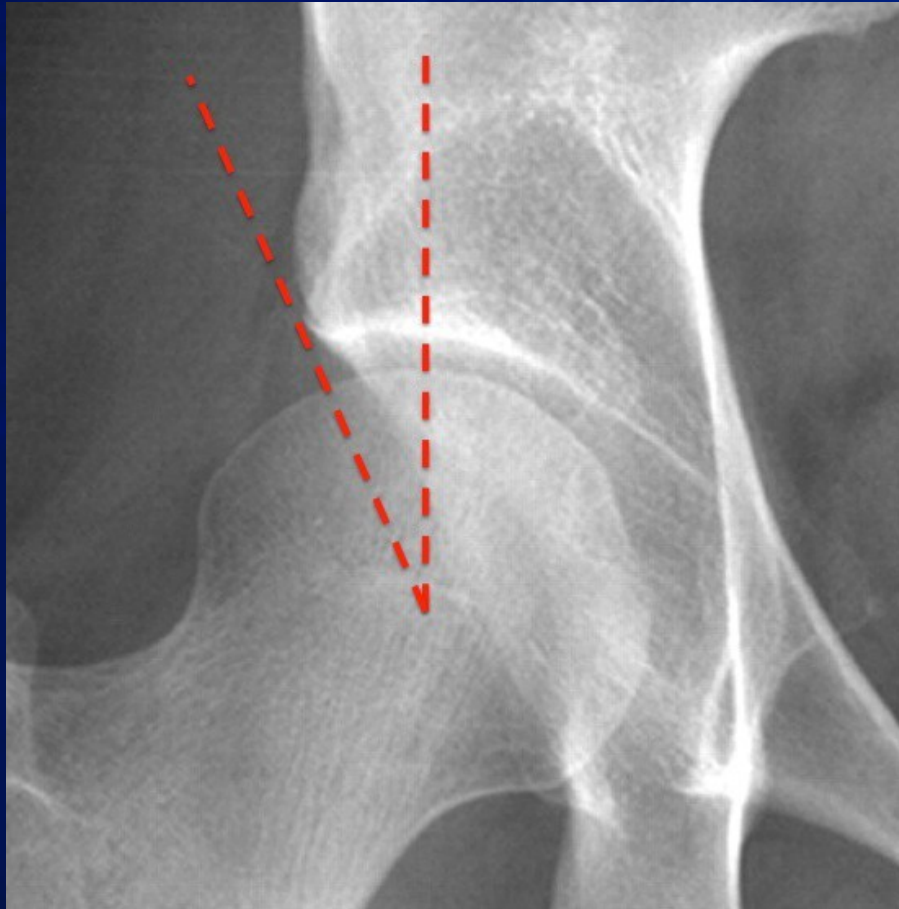
B

Imaging



in patients in whom the history and physical examination are consistent with FAI

Lateral Centre Edge Angle

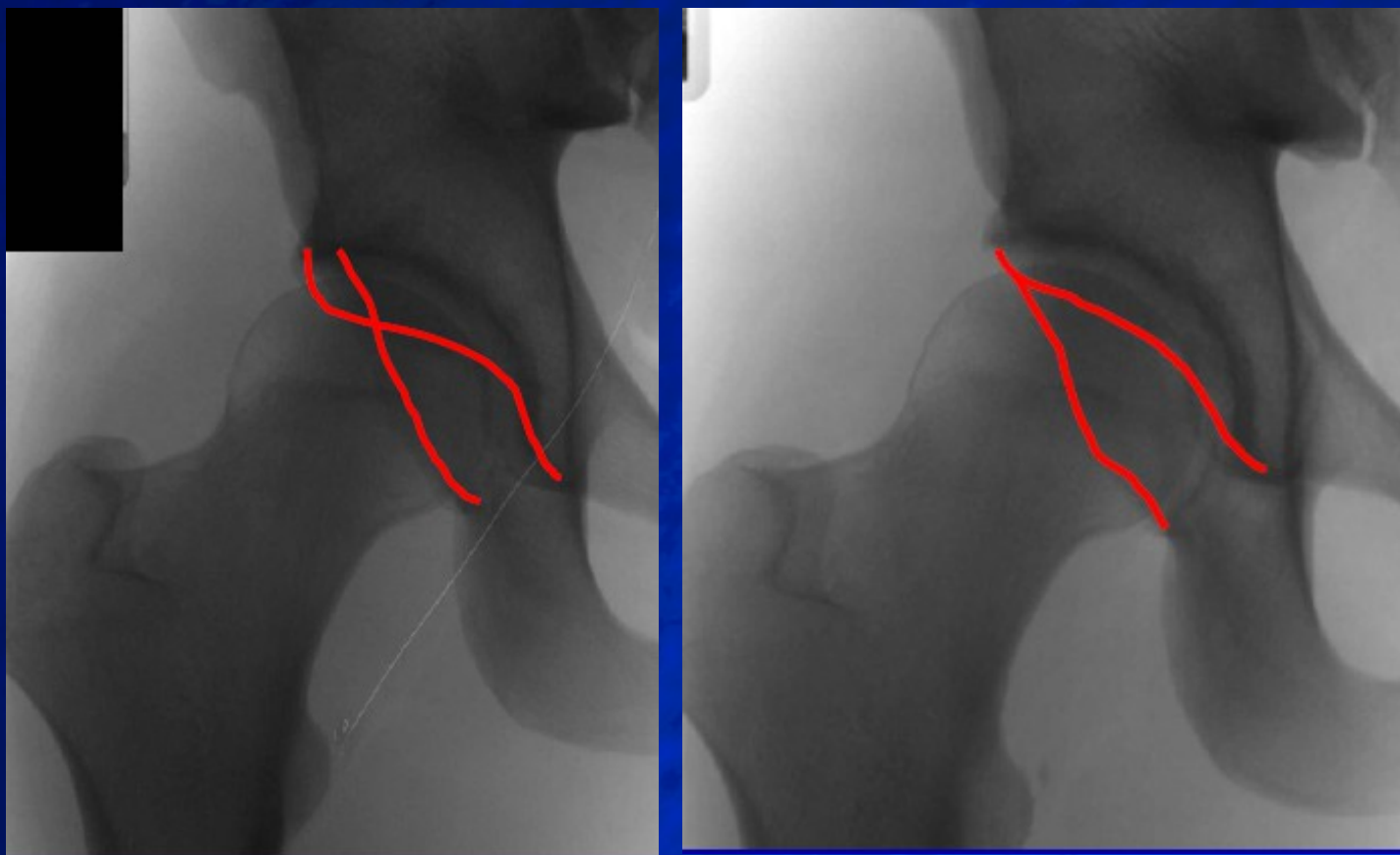


Measures the acetabular depth

Normal angle 25-40 degrees

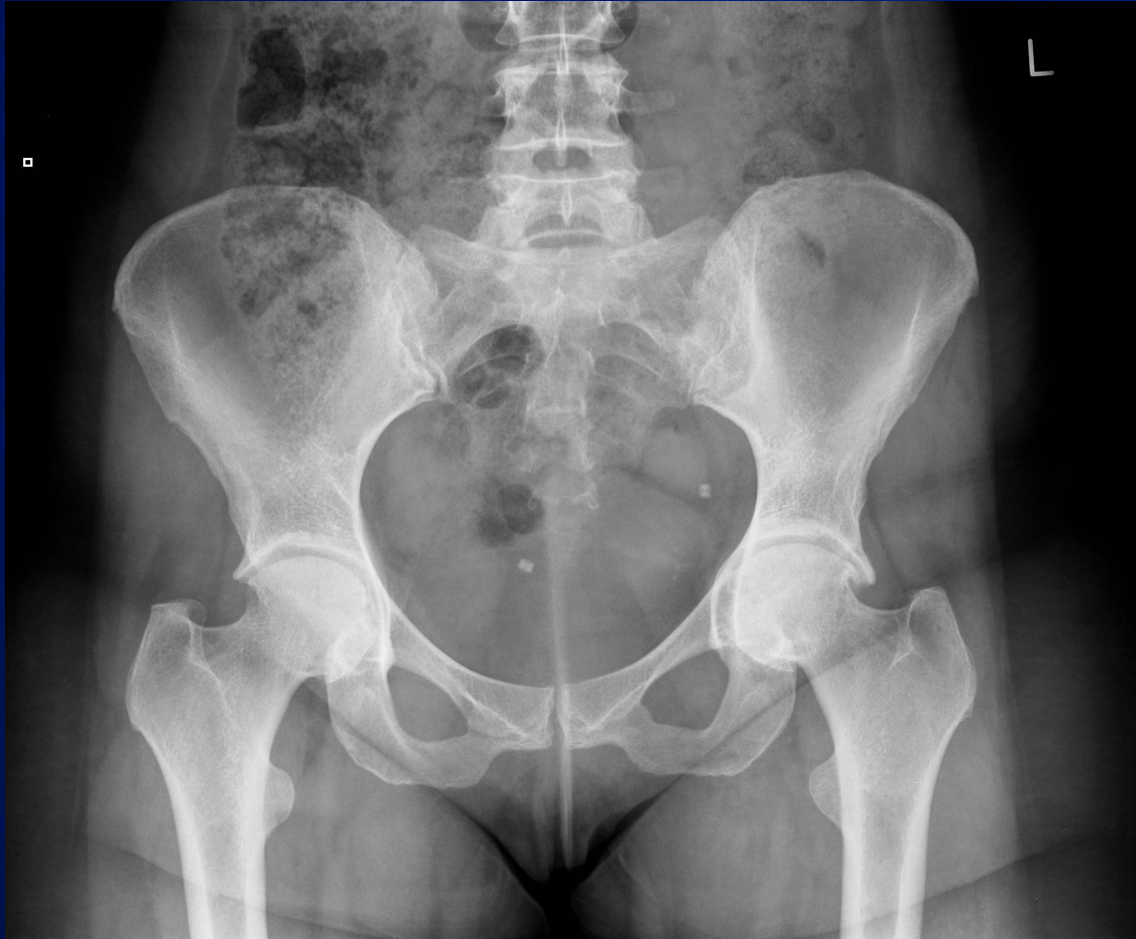
< 25 = dysplasia

Acetabular Retroversion



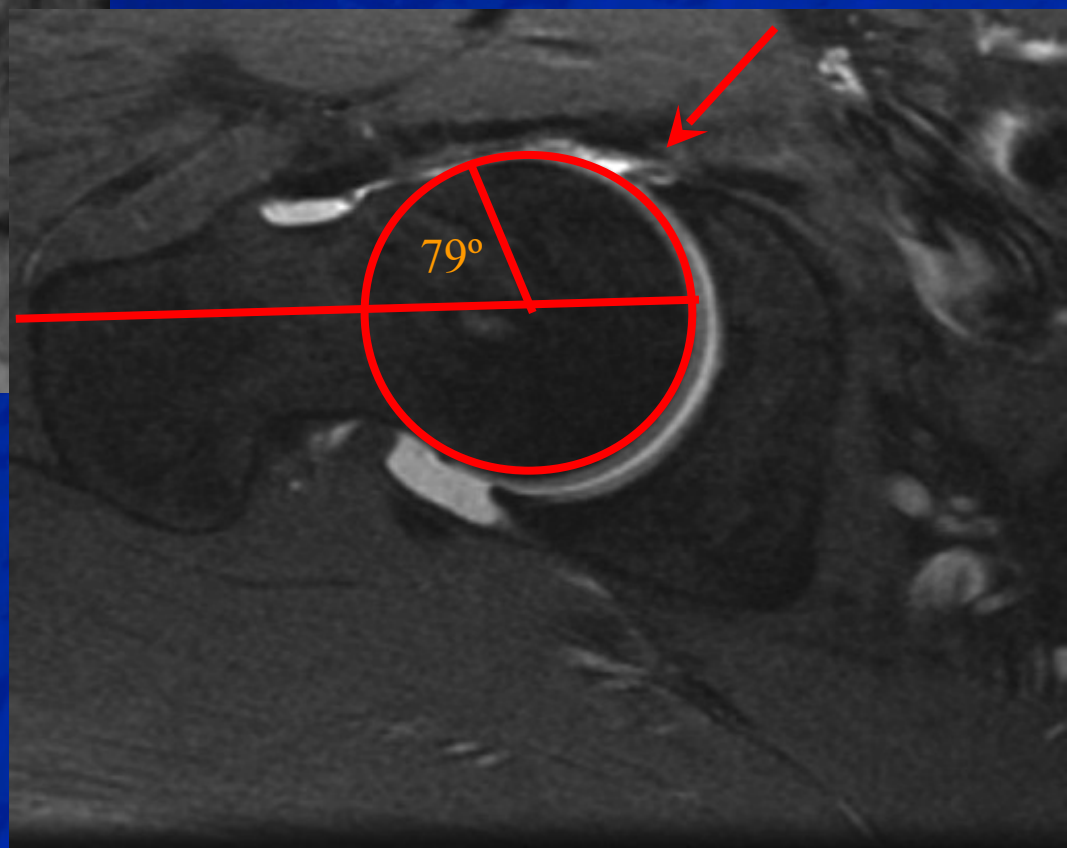
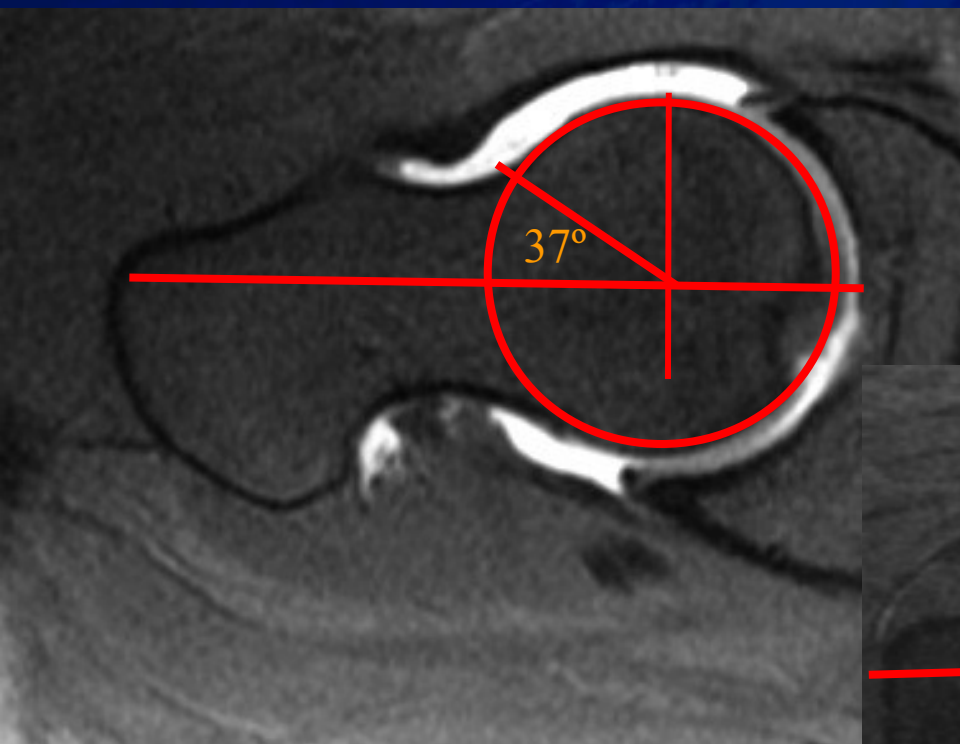
Cross-over sign:
Focal acetabular
overcoverage.

Coxa Profunda



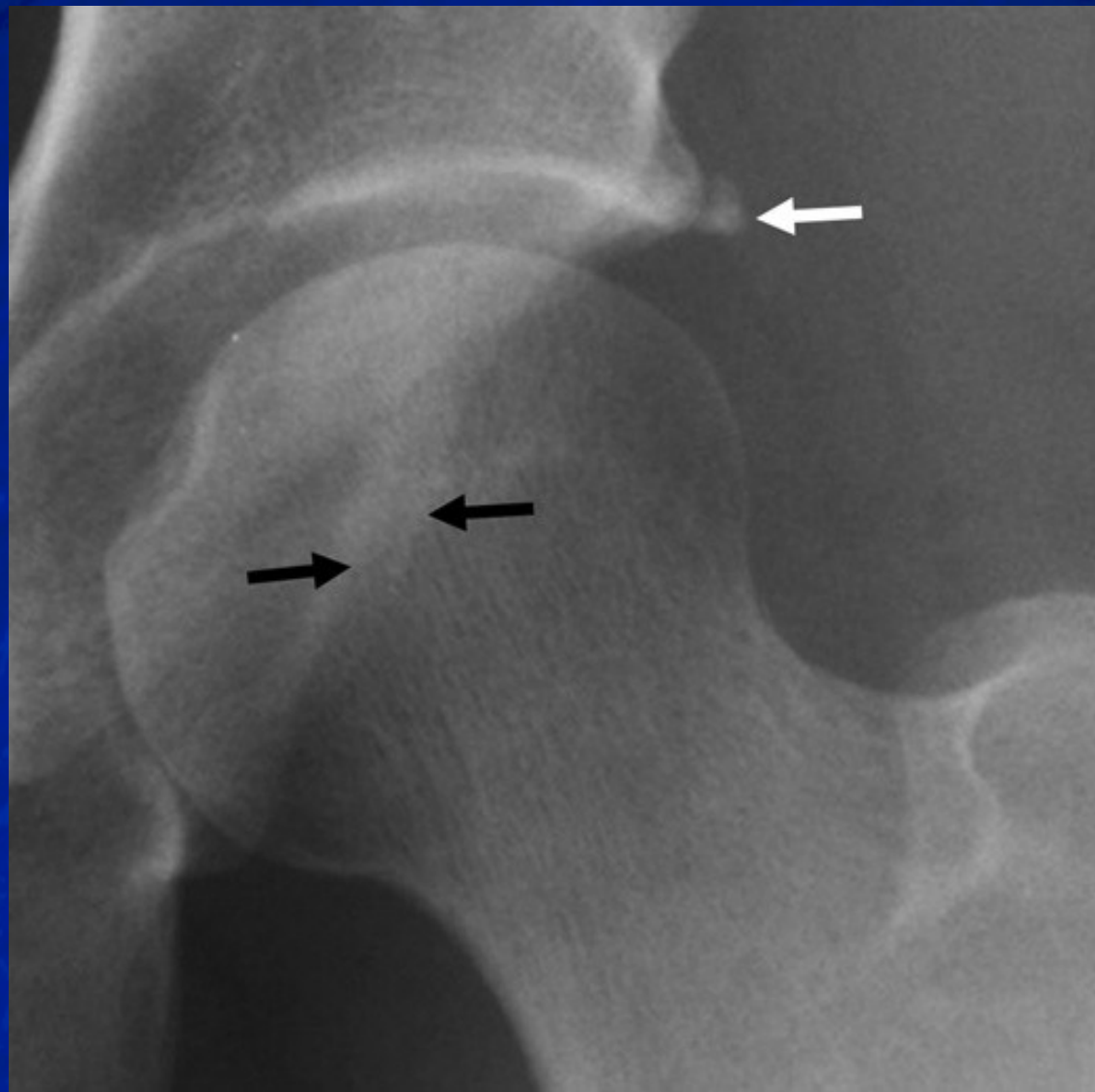
Centre of femoral head lies medially to the posterior wall Acetabulum

- Tear drop looks a straight line
- Visible ischial spines

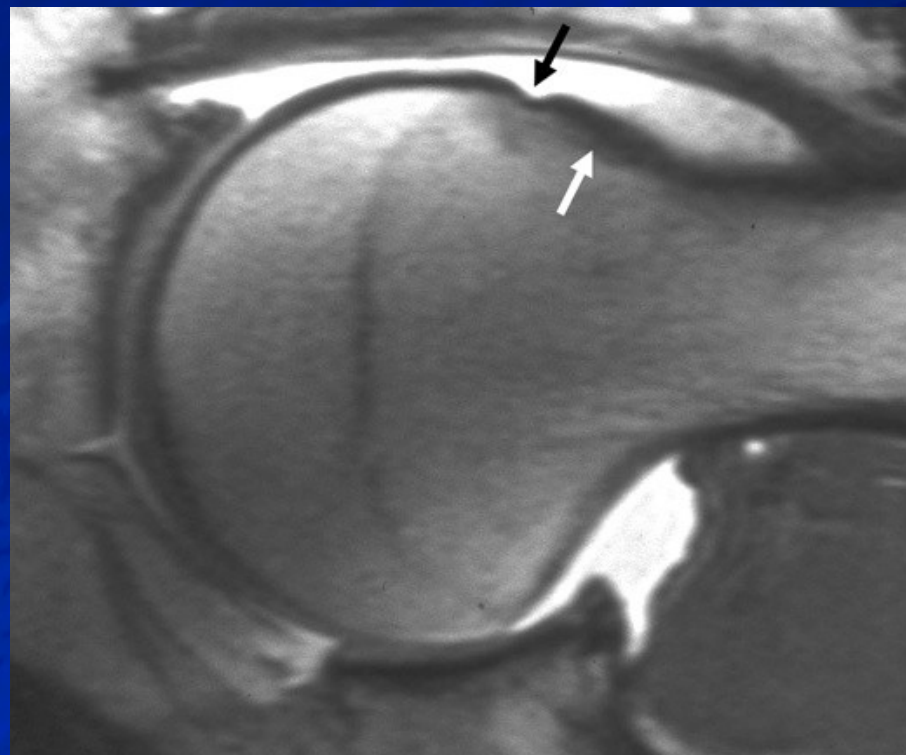
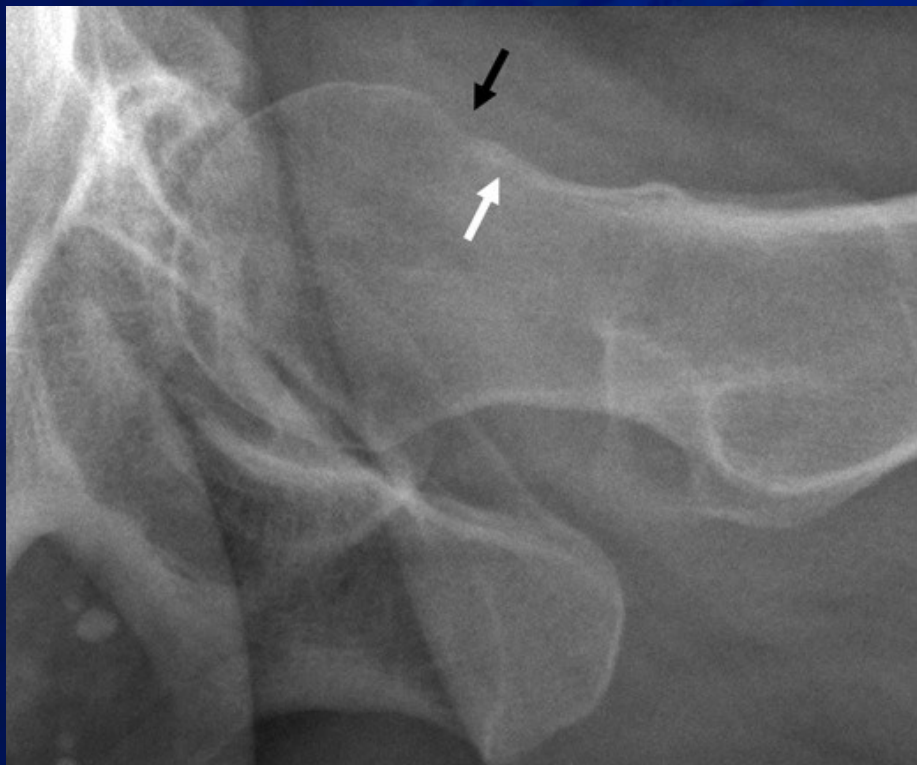


Secondary radiologic signs of FAI

Ossification of labrum
1st structure to be involved



Secondary radiologic signs of FAI



Linear indentation at the femoral head-neck junction

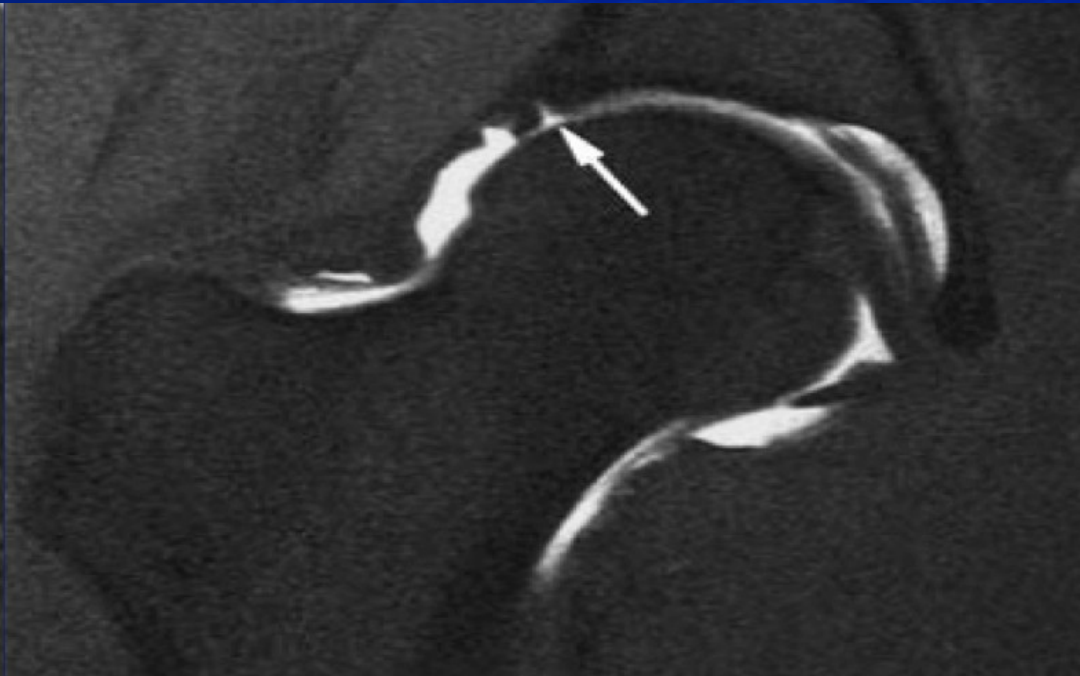
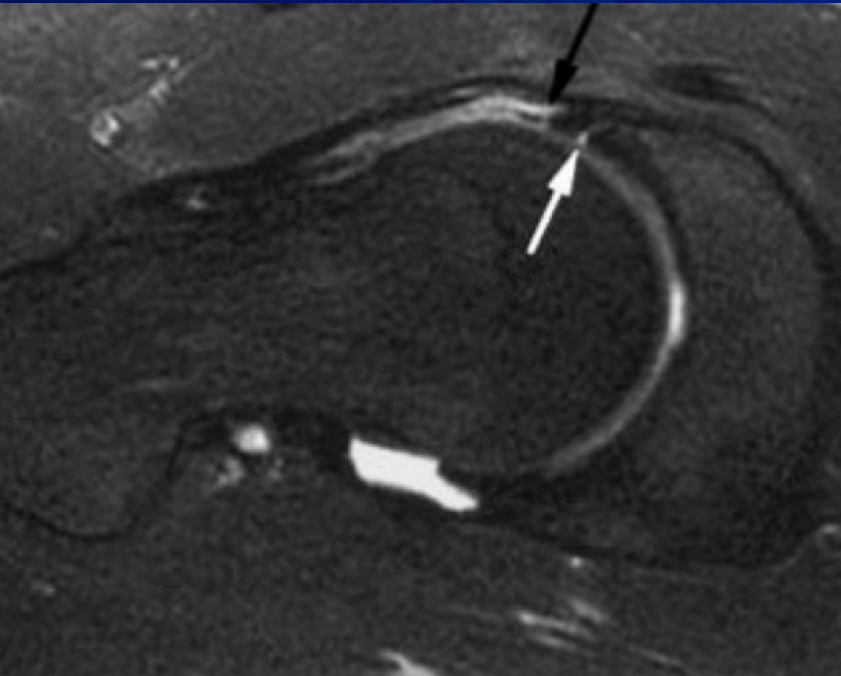
Secondary radiologic signs of FAI



Herniation pits: radiolucency surrounded by sclerotic margin

MRArthrography

Labral tears



Treatment



Young Adult with Painful Hip

Symptomatic FAI

Simple Morphology

Complex Morphology

Arthroscopy

Open treatment

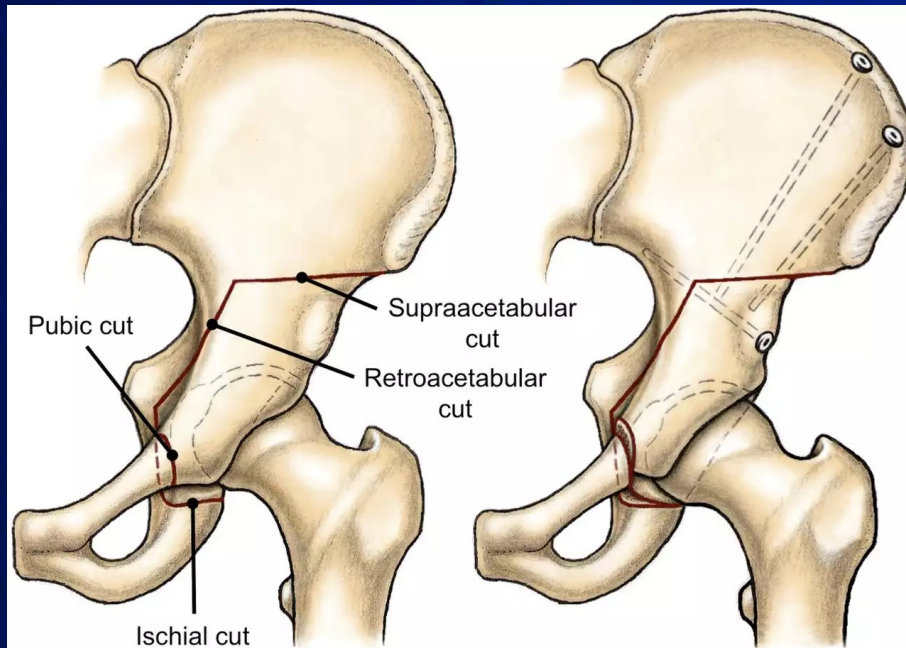


Young Adult with Painful Hip

- No role for hip arthroscopy in isolation:
 - CE angle < 20 degrees
 - Extreme protrusio
 - Dysmorphic femoral head



Periacetabular Osteotomy



Hip Arthroscopy

Impingement Surgery

Good Candidate

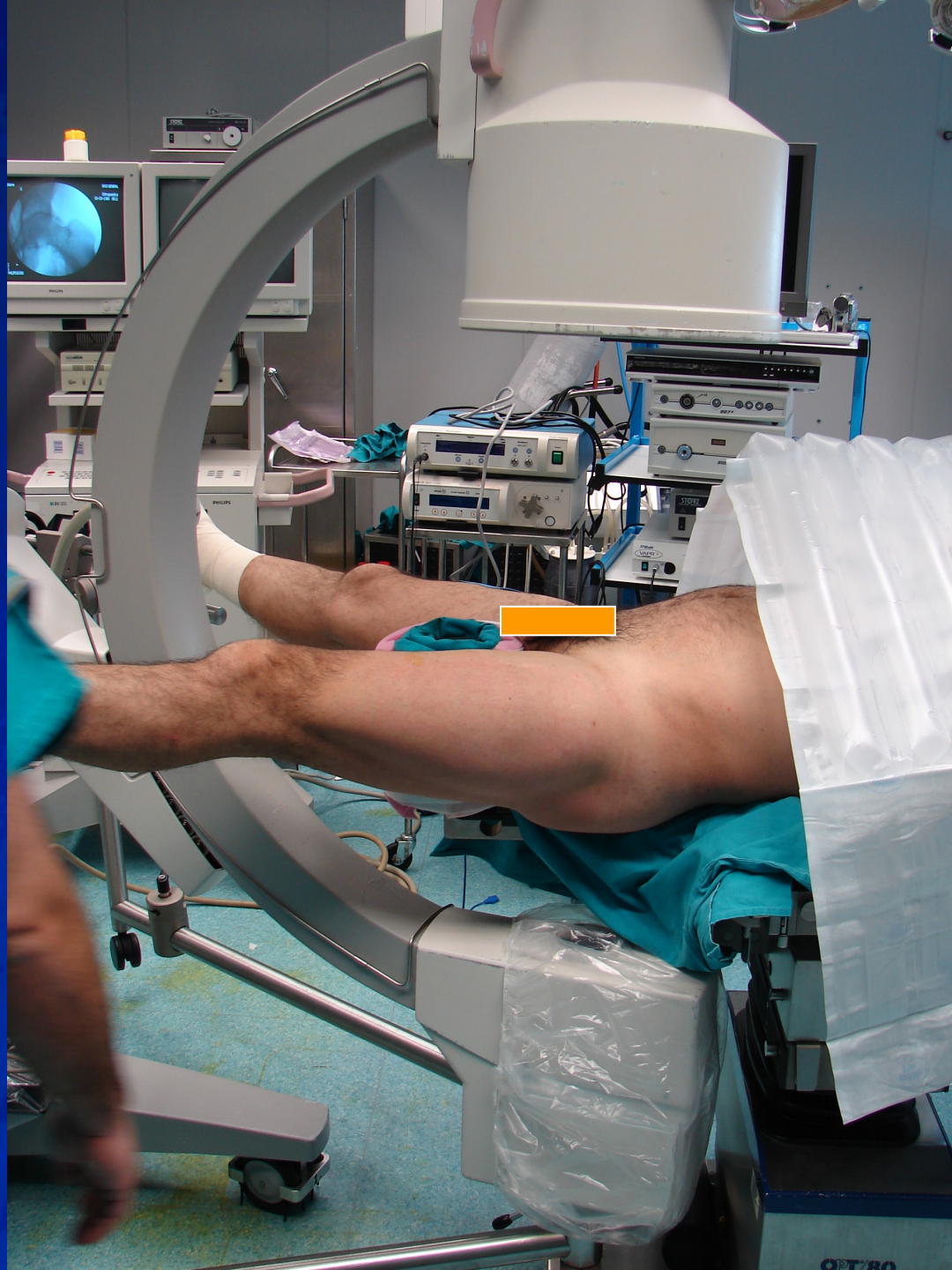
- Young Patient
- Relatively Preserved Articular Cartilage
- Correctable Anatomic Problem



Surgical Technique

Positioning

Supine

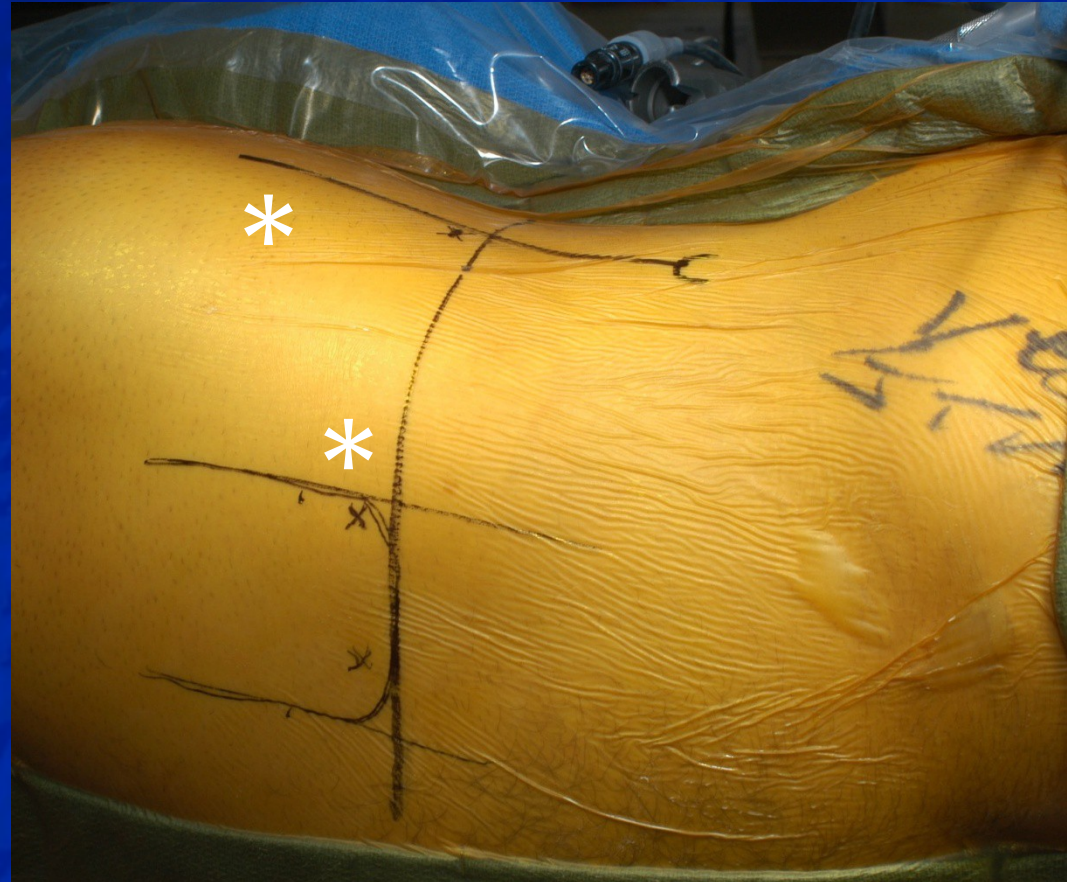


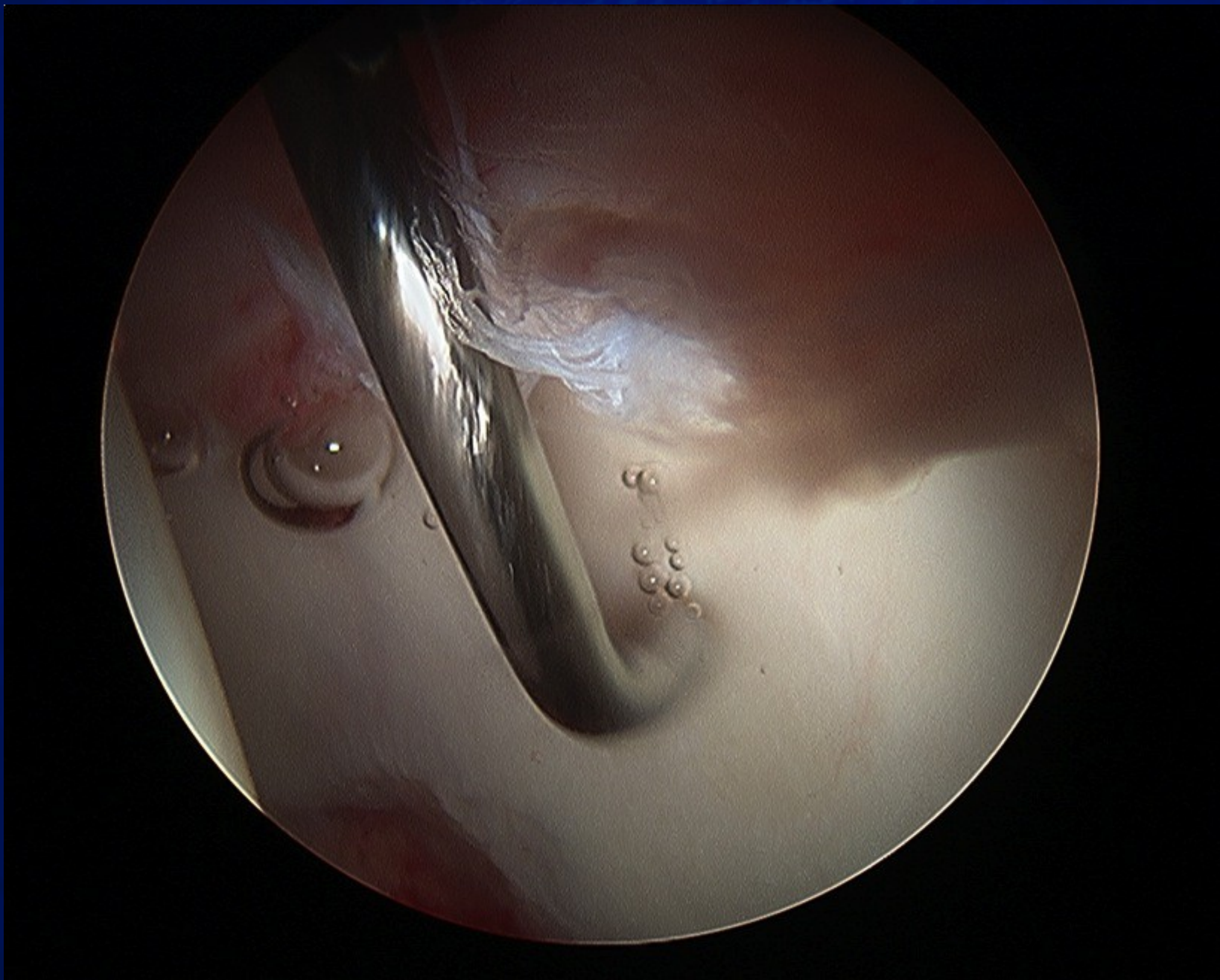
Surgical technique

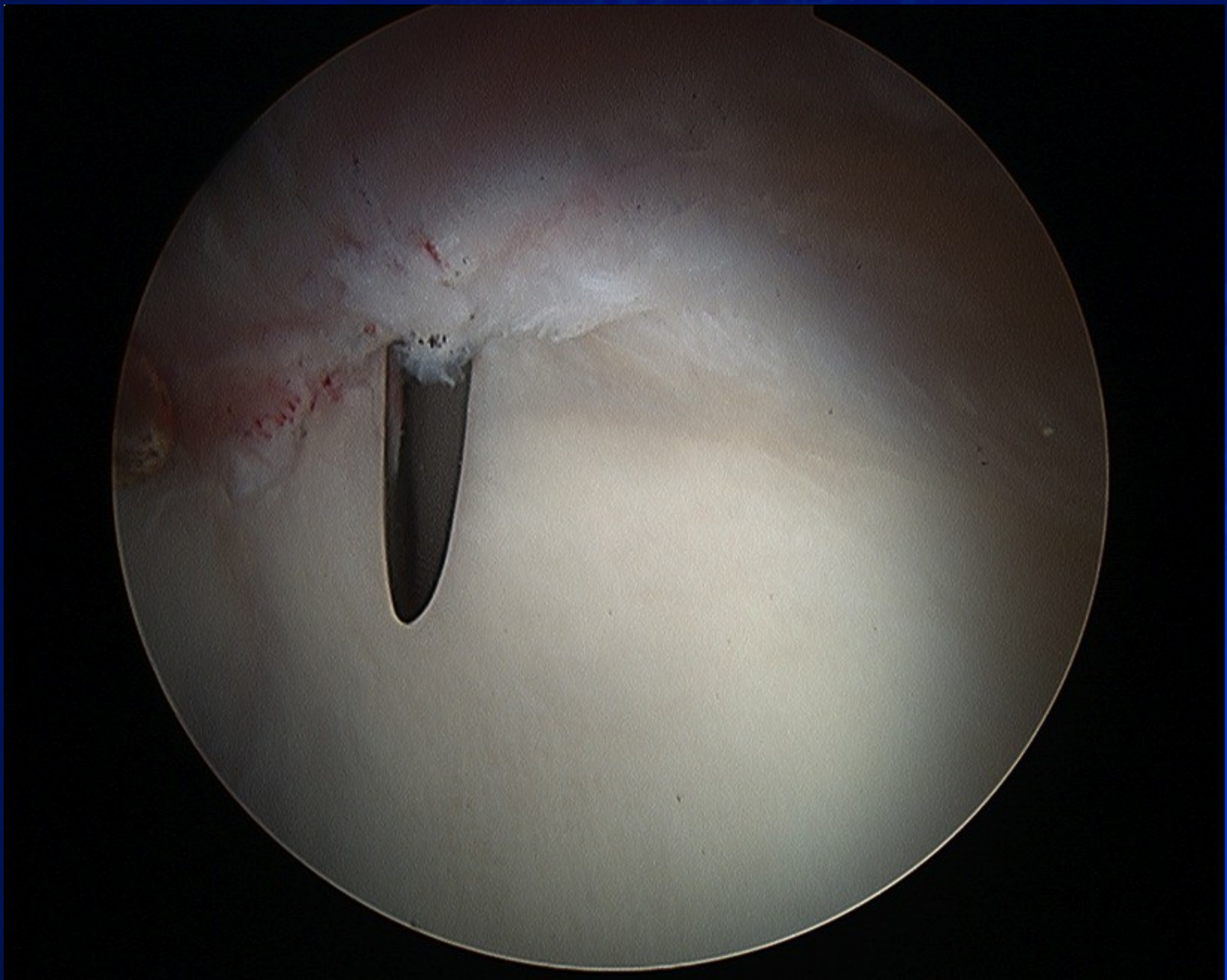
- Adequate distraction (central compartment)
- Portal placement (anterior and anterolateral)

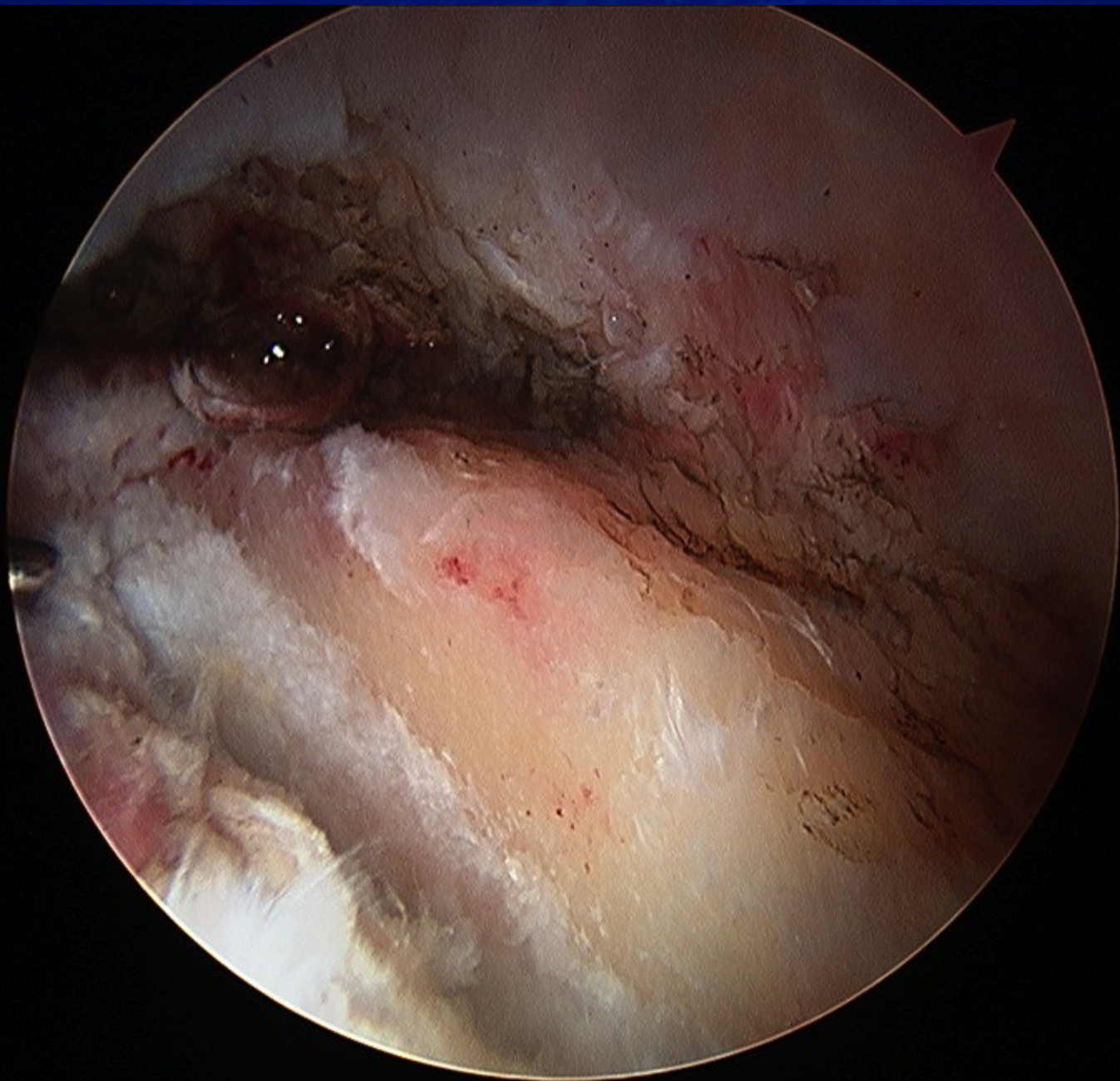


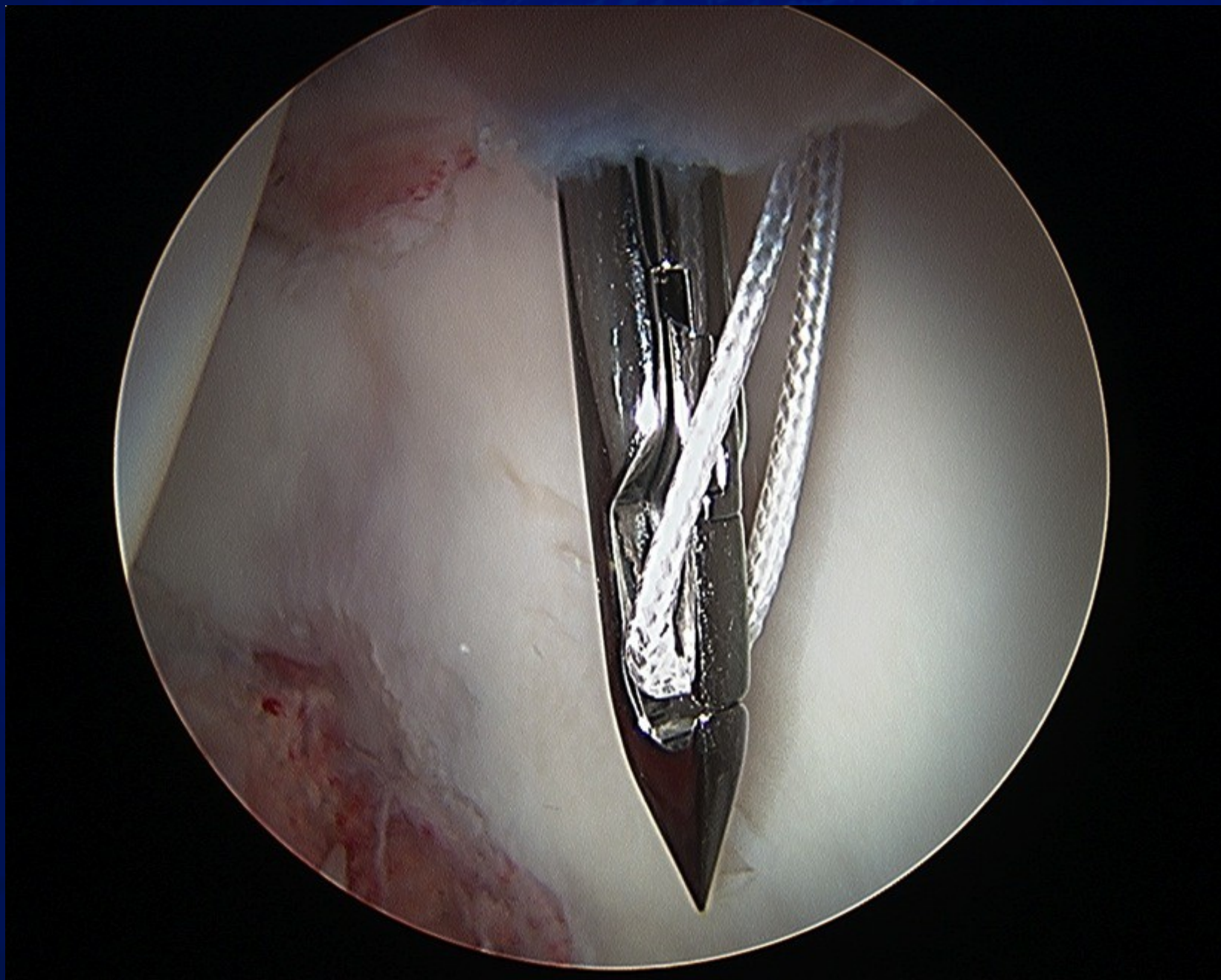
8-10 mm distraction

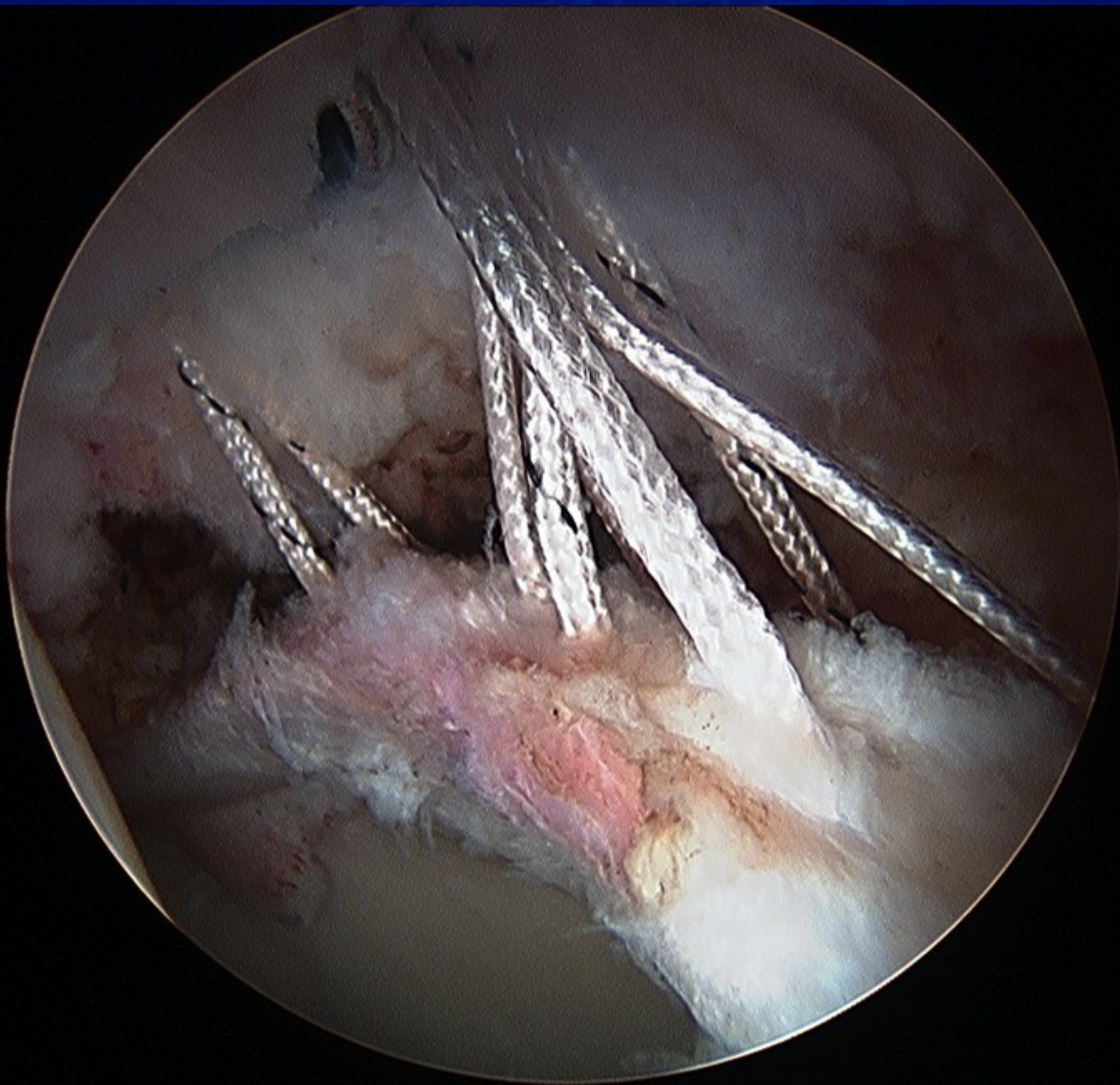


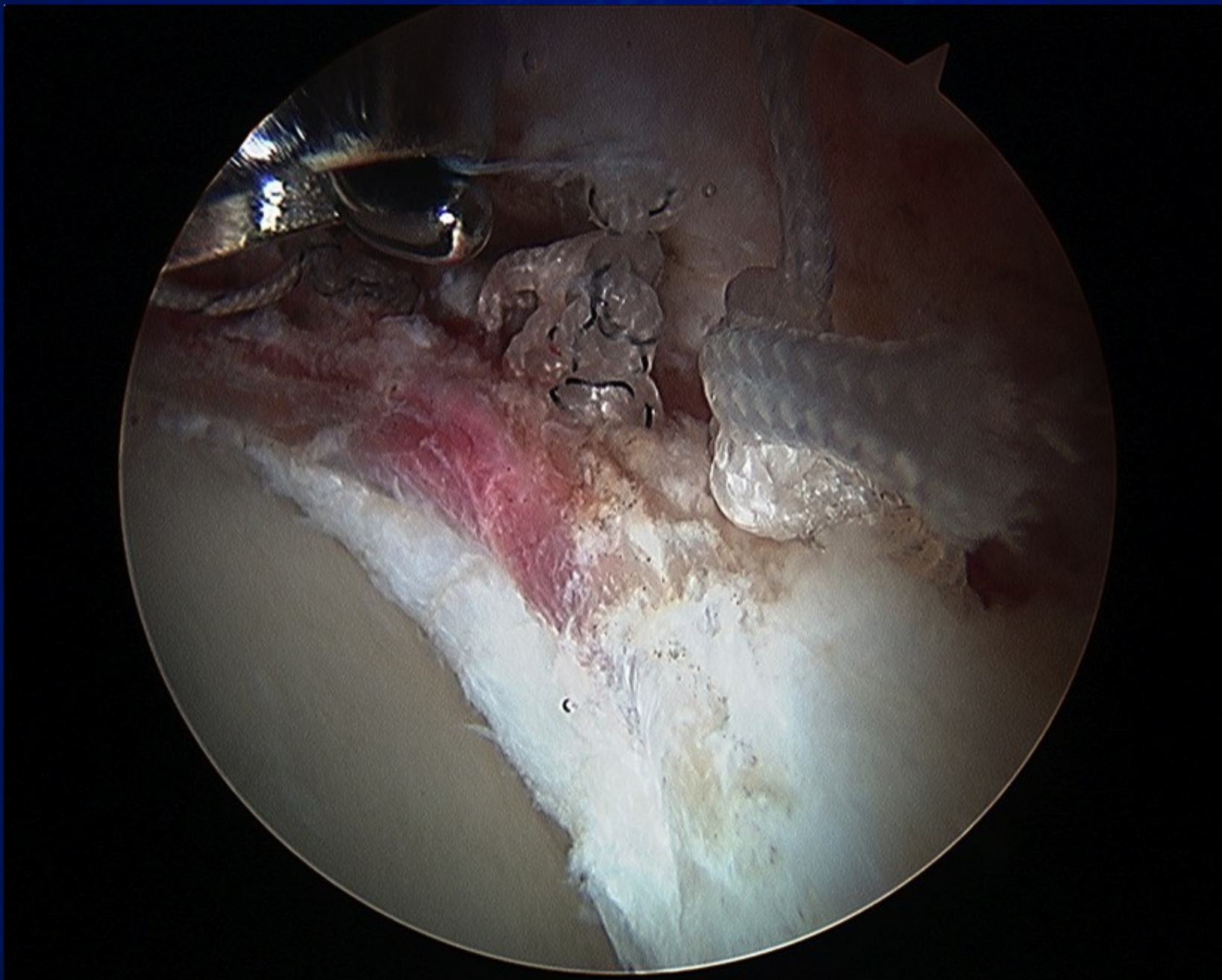


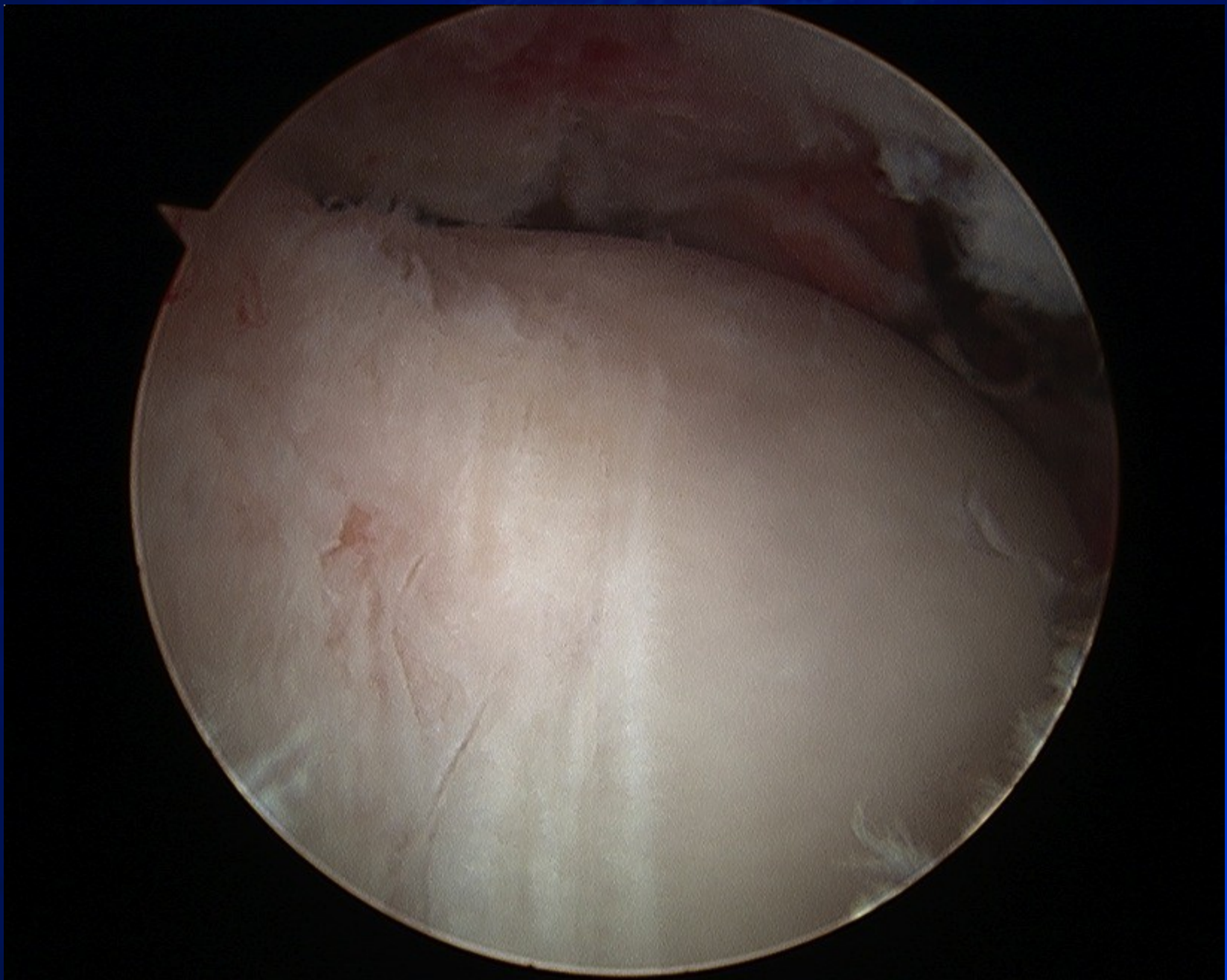


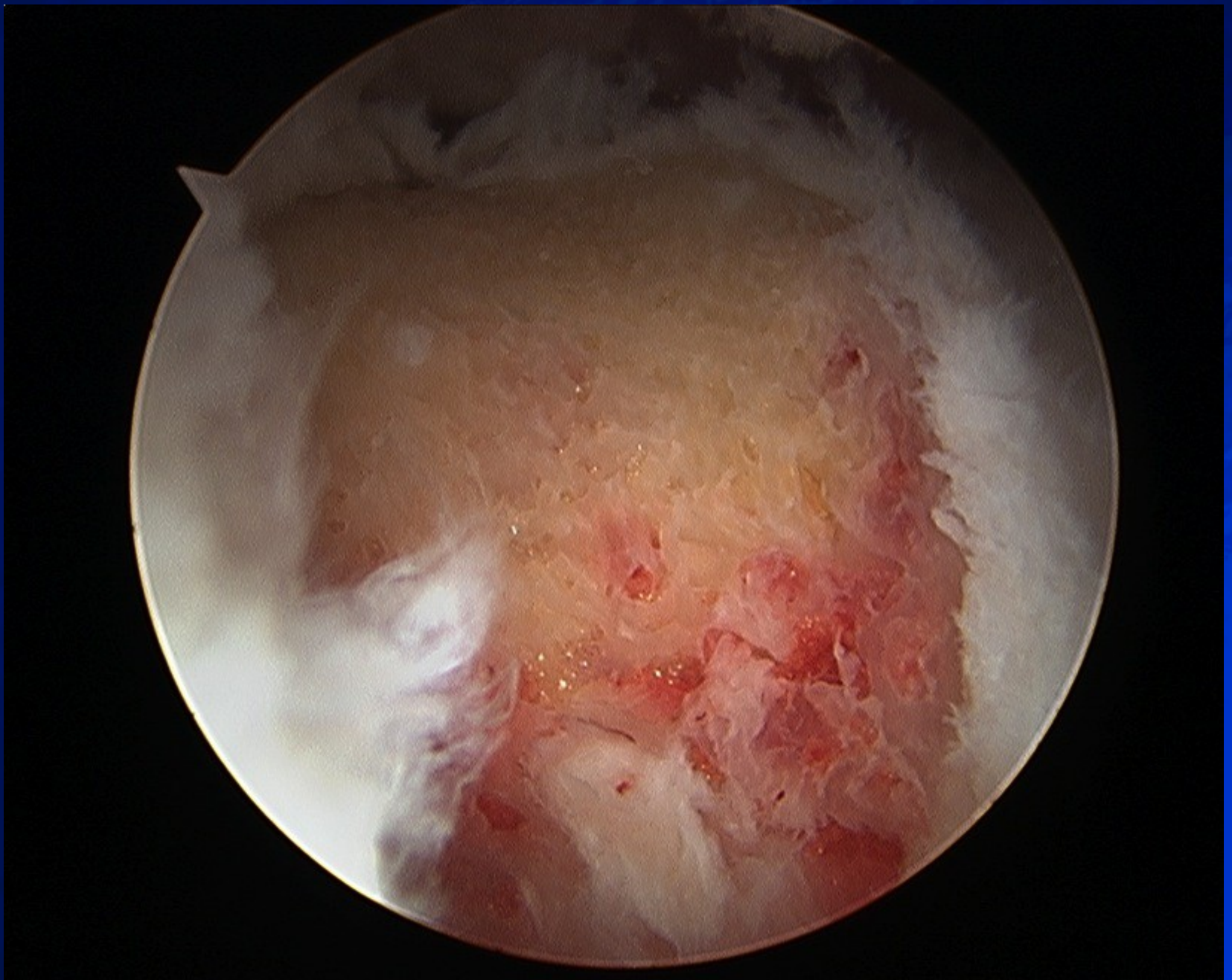




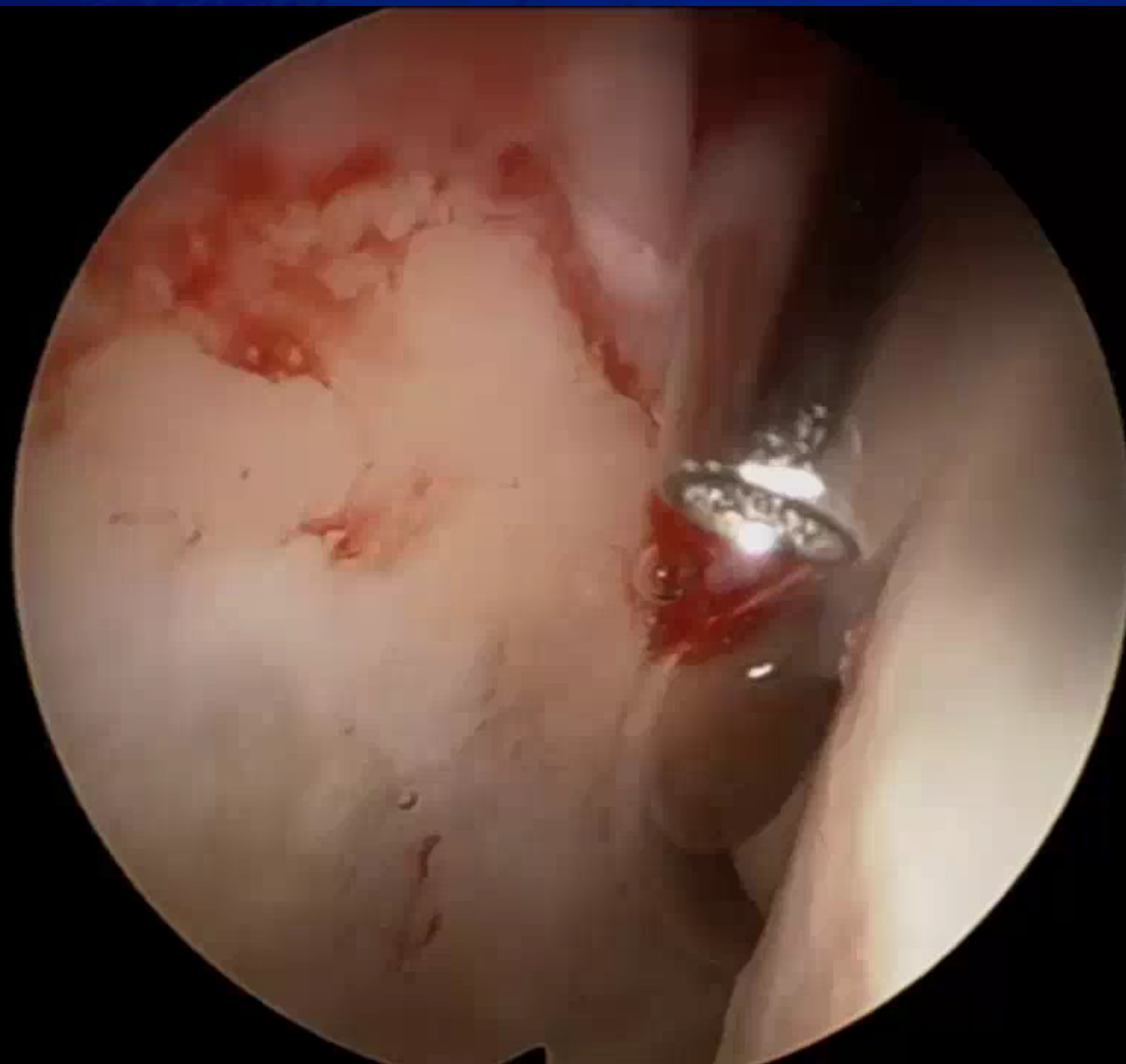


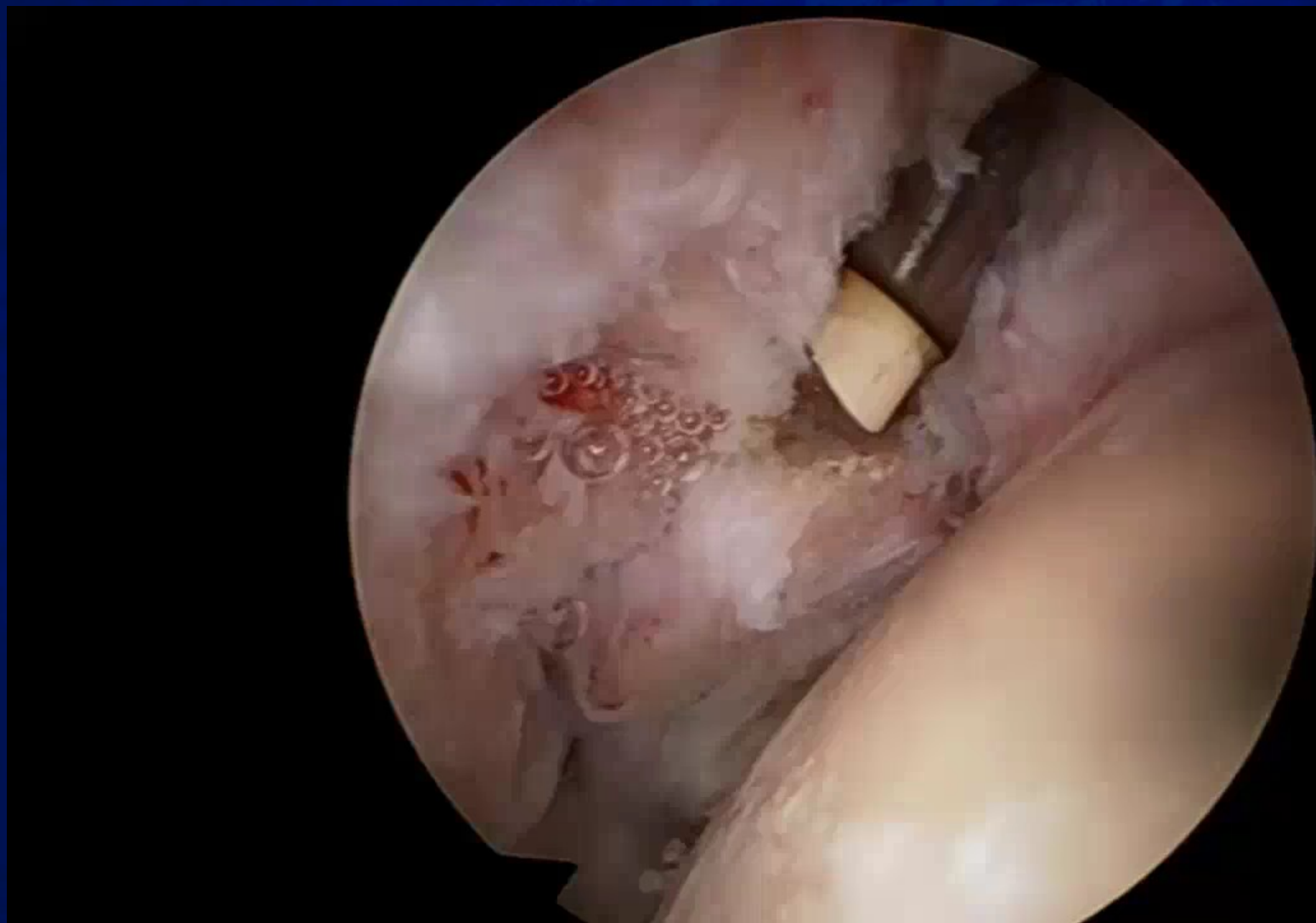






Hip Arthroscopy and Osteoarthritis





Hip Arthroscopy and Osteoarthritis

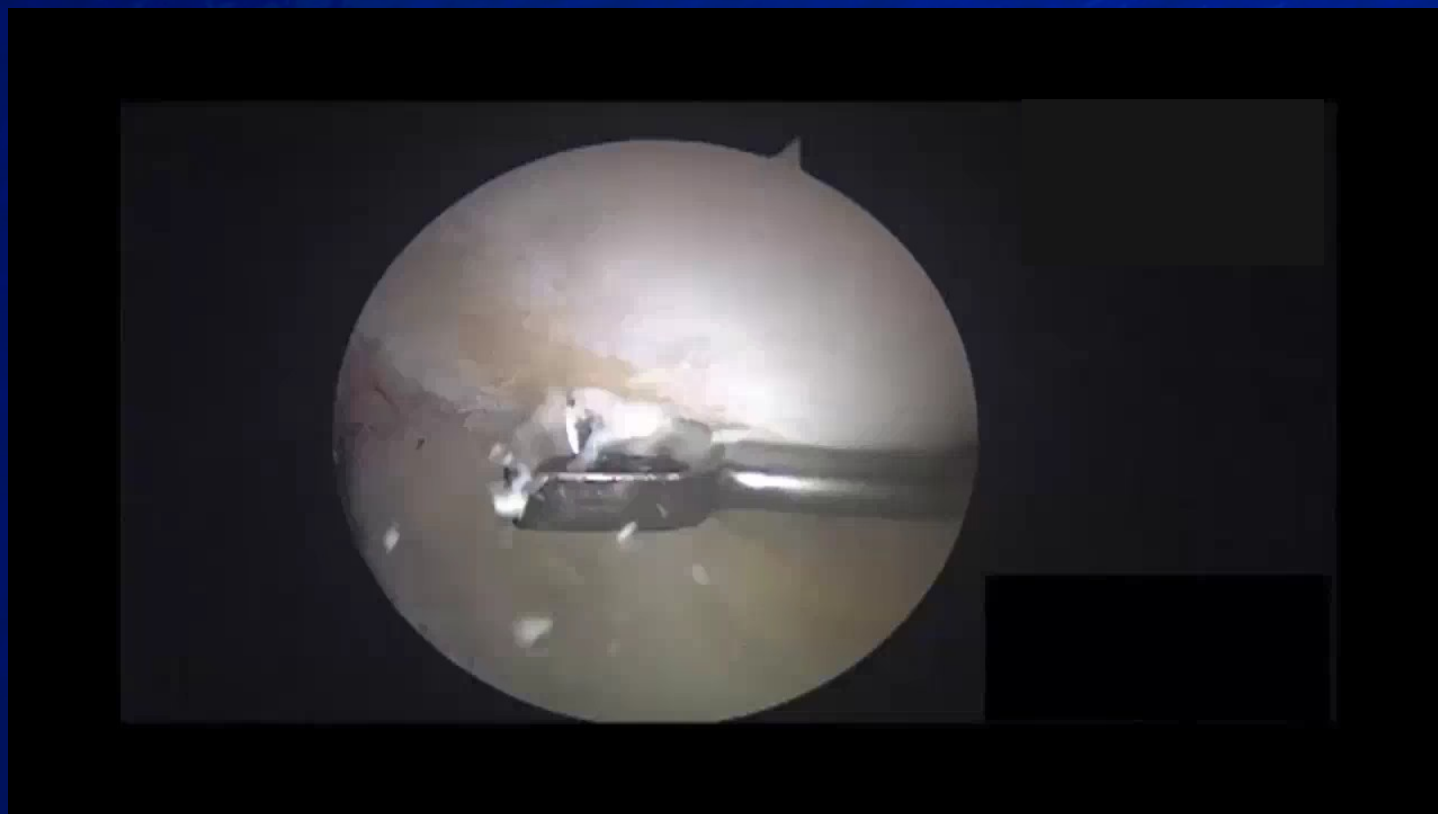
- The labrum degenerated or calcified
 - arthroscopic repair is not an effective treatment
 - debridement
- Labral reconstruction with a graft is not an effective option

Hip Arthroscopy and Osteoarthritis

- Unstable chondral lesions
 - abrasive chondroplasty resecting unstable fragments.
 - micro fractures in focal lesions and not in cases of diffuse chondral damage or of the acetabulum or the femoral head
 -
- Osteophytes in the rim of the acetabular fossa can be resected, ideally using a smaller and curved burr. However, the clinical effectiveness of this resection is uncertain. I







Hip Arthroscopy and Osteoarthritis

- In advanced stages of hip OA only a few arthroscopic therapeutic options with an uncertain clinical effectiveness are available.
- The arthroscopic treatment may provide temporary relief to reduce patient discomfort without changing the natural course of the disease.

Hip Arthroscopy and Osteoarthritis

Tonnis Grading System

