Technical Deep Dive: Labral Reconstruction / Augmentation

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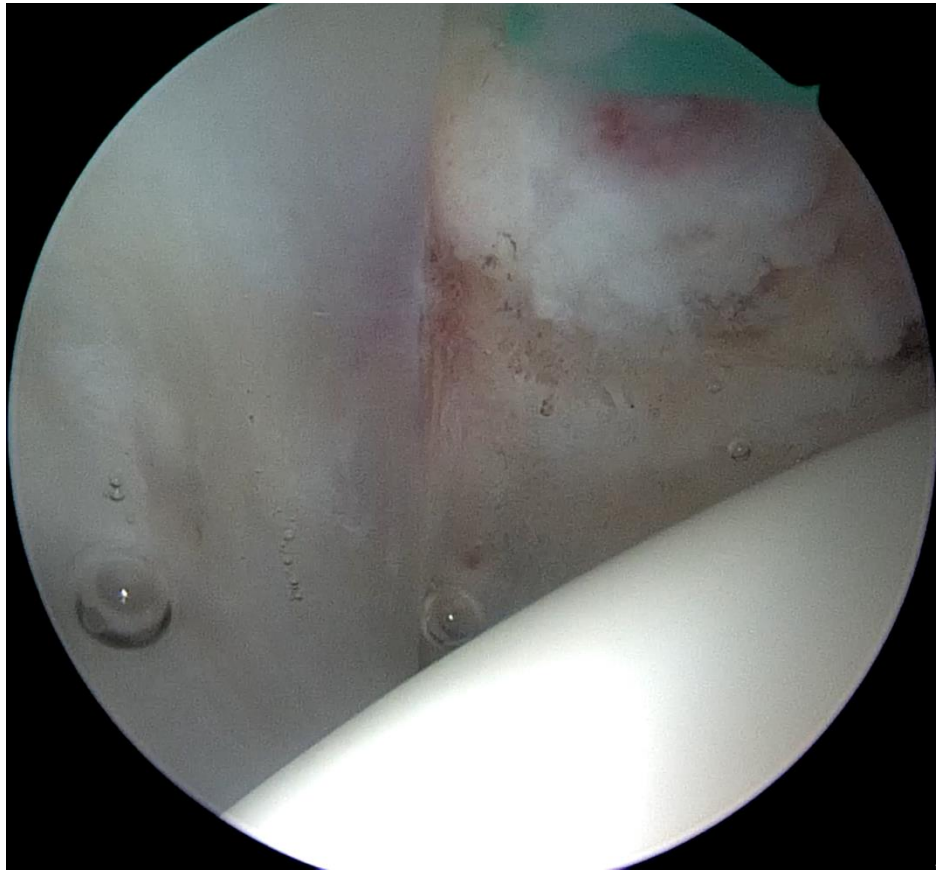
Goals of Labral Treatment

1. Eliminate damaged, pain generating tissue

2. Optimize stability through restoration of a circumferential suction seal around the femoral head.

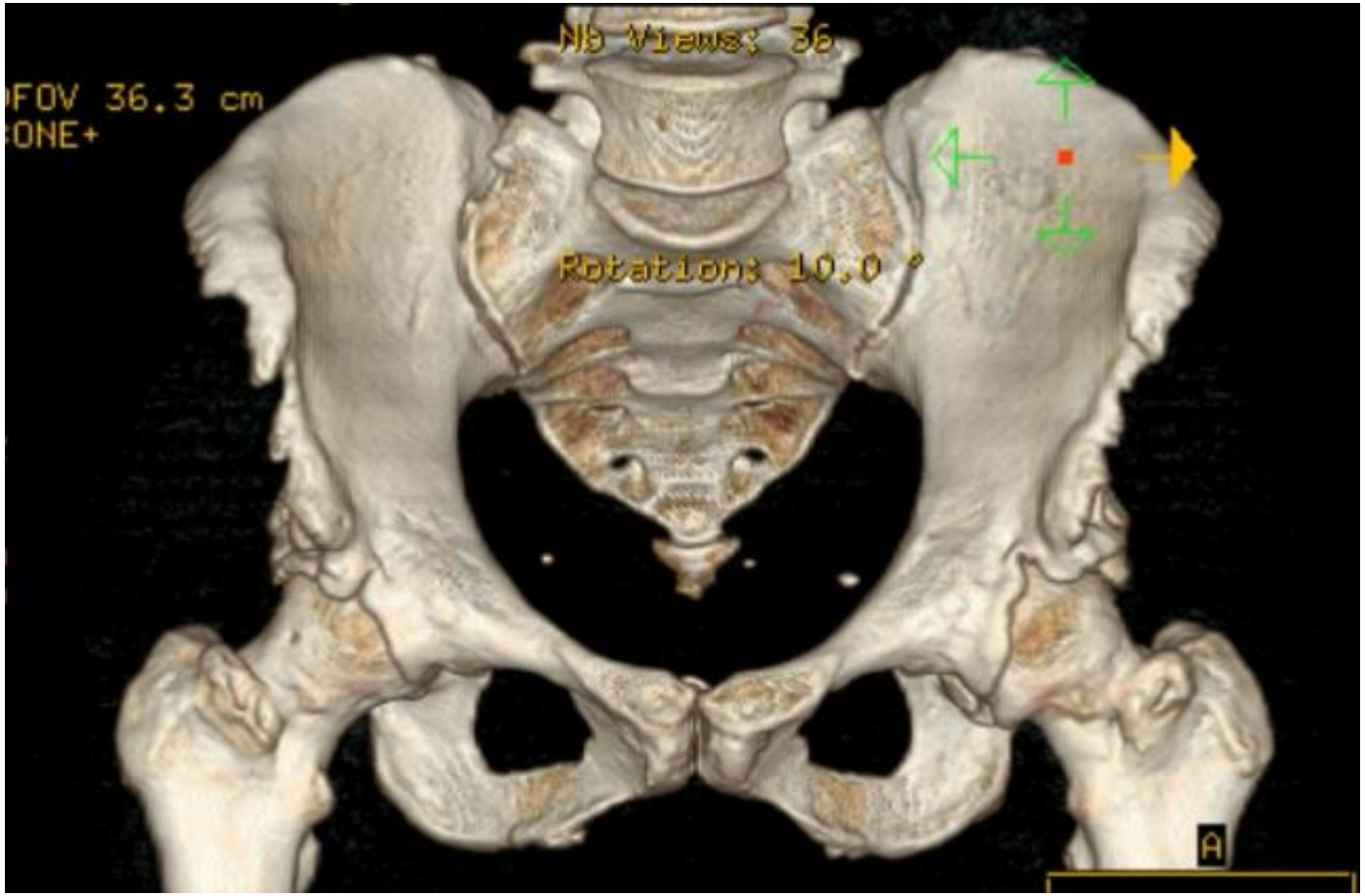
Appropriately balancing these competing aims is the key to optimizing results.

Patient Specific Labral Treatment



- Labral debridement/resection is likely suboptimal in many patients
- Limitations:
  - Repair / Augmentation: can’t do it if there’s nothing to repair or augment

42 yo woman with DISH



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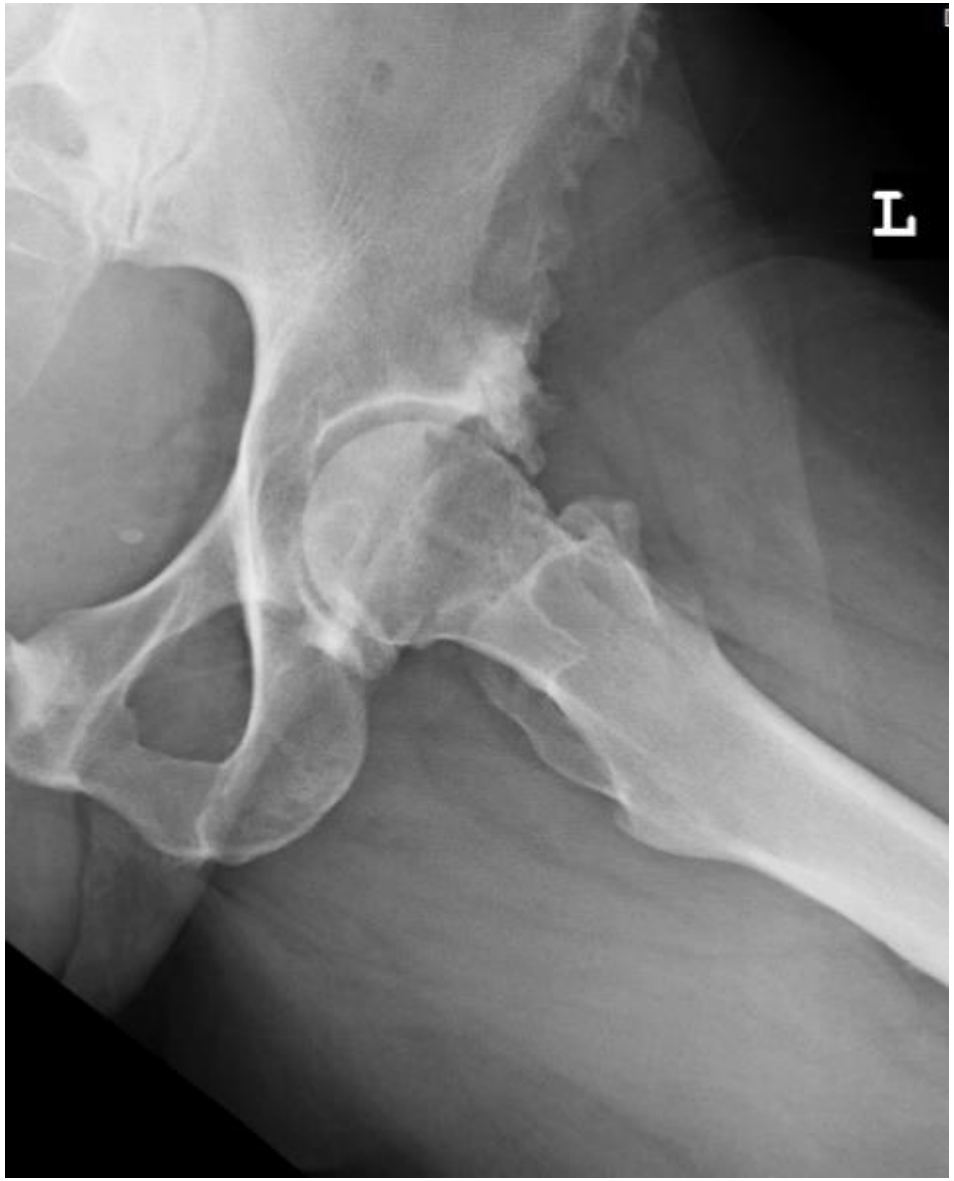
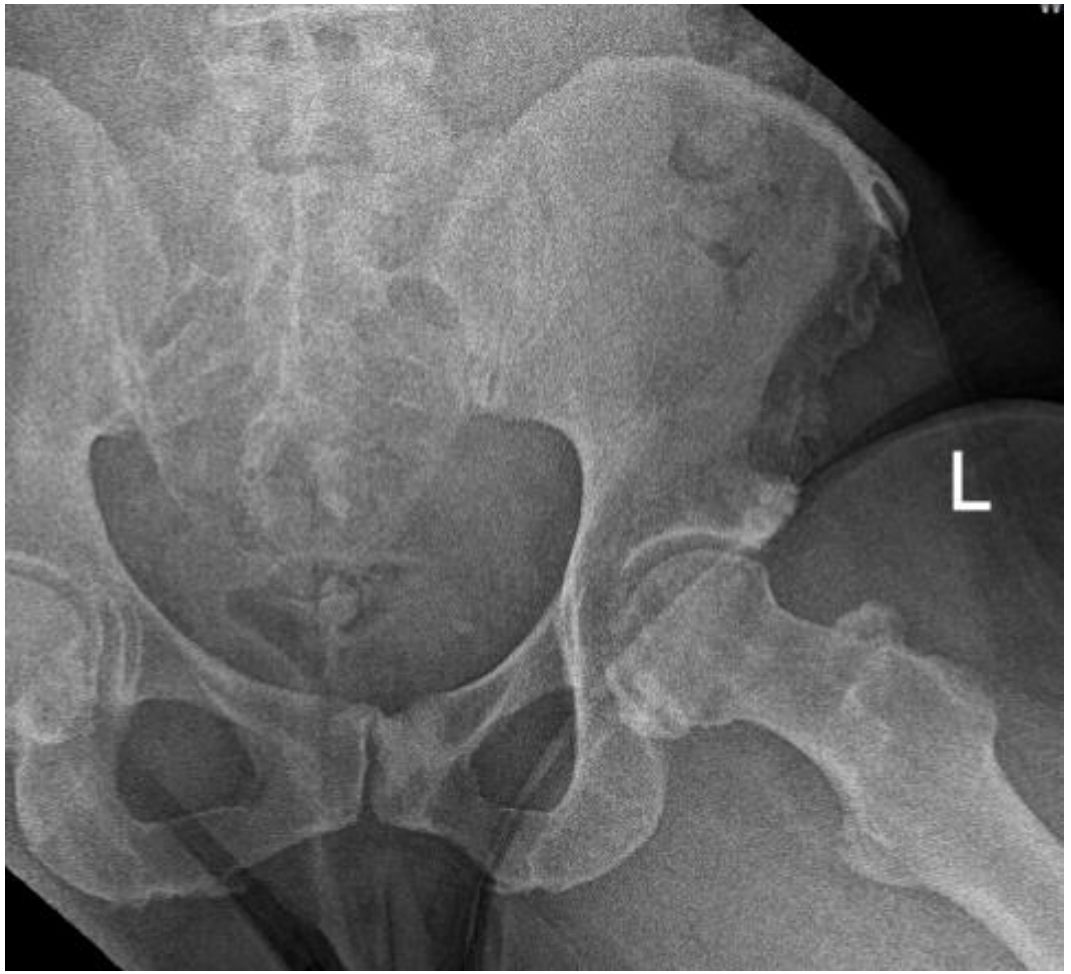


47 yo woman with DISH

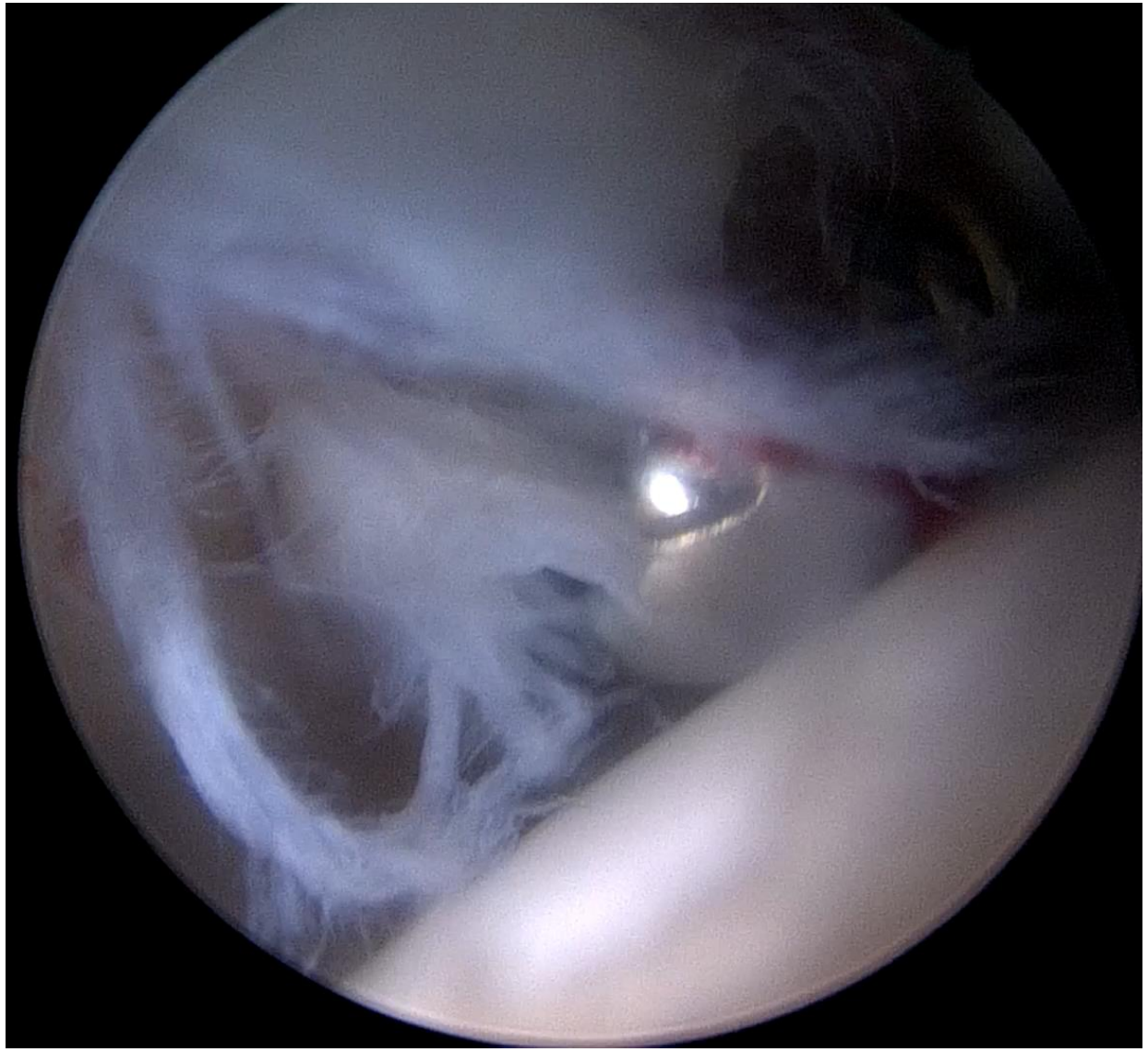


- 47 yo woman with DISH 5 years s/p complete labral reconstruction

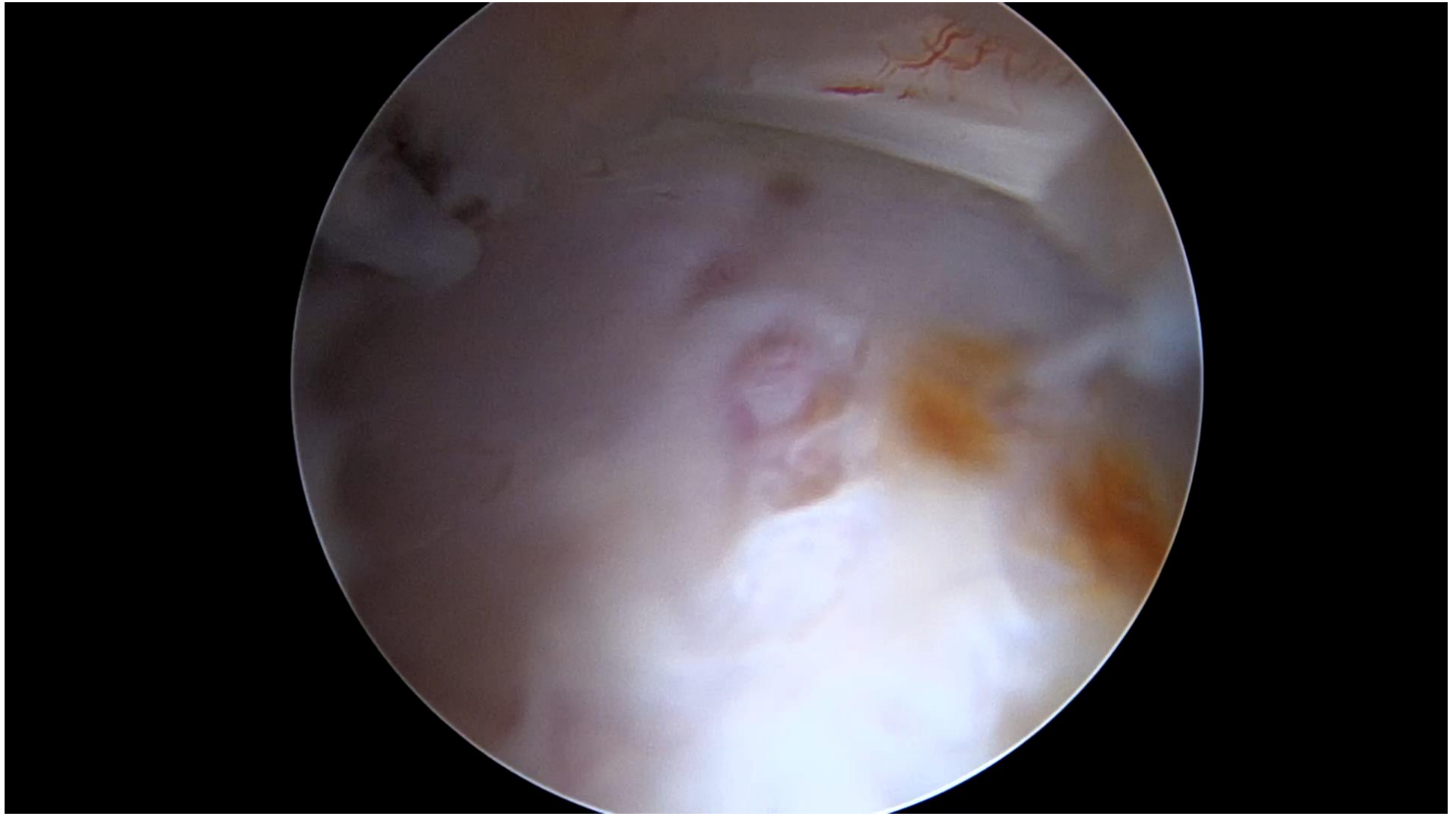
5-year post-op Radiograph

Intrasubstance Cysts/Synovitis

Intrasubstance Cysts/Synovitis

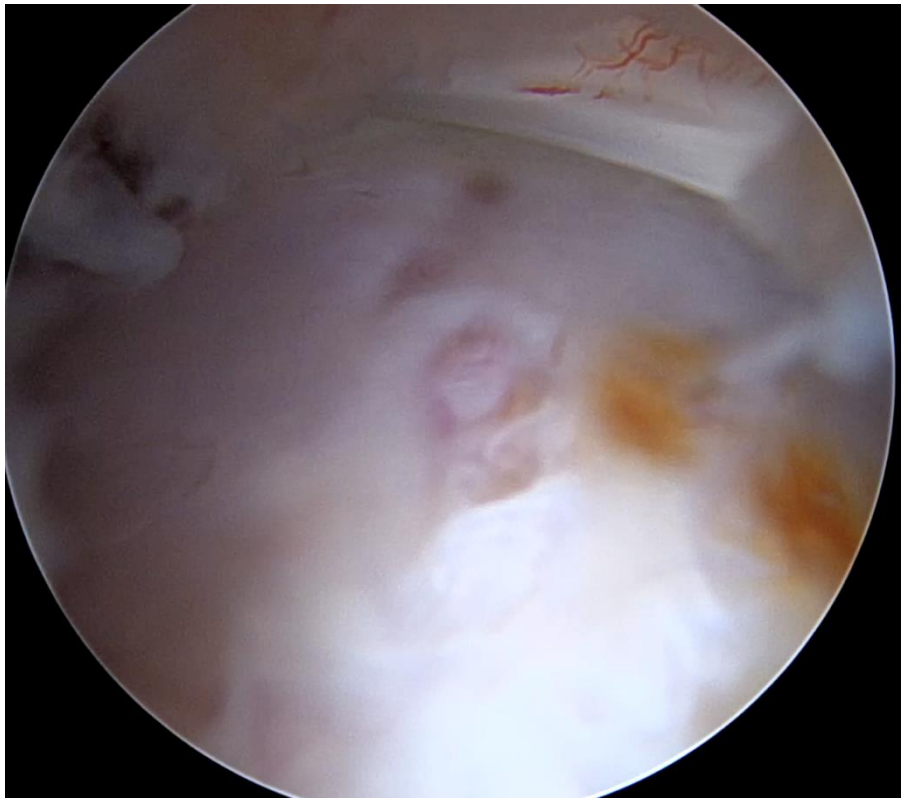


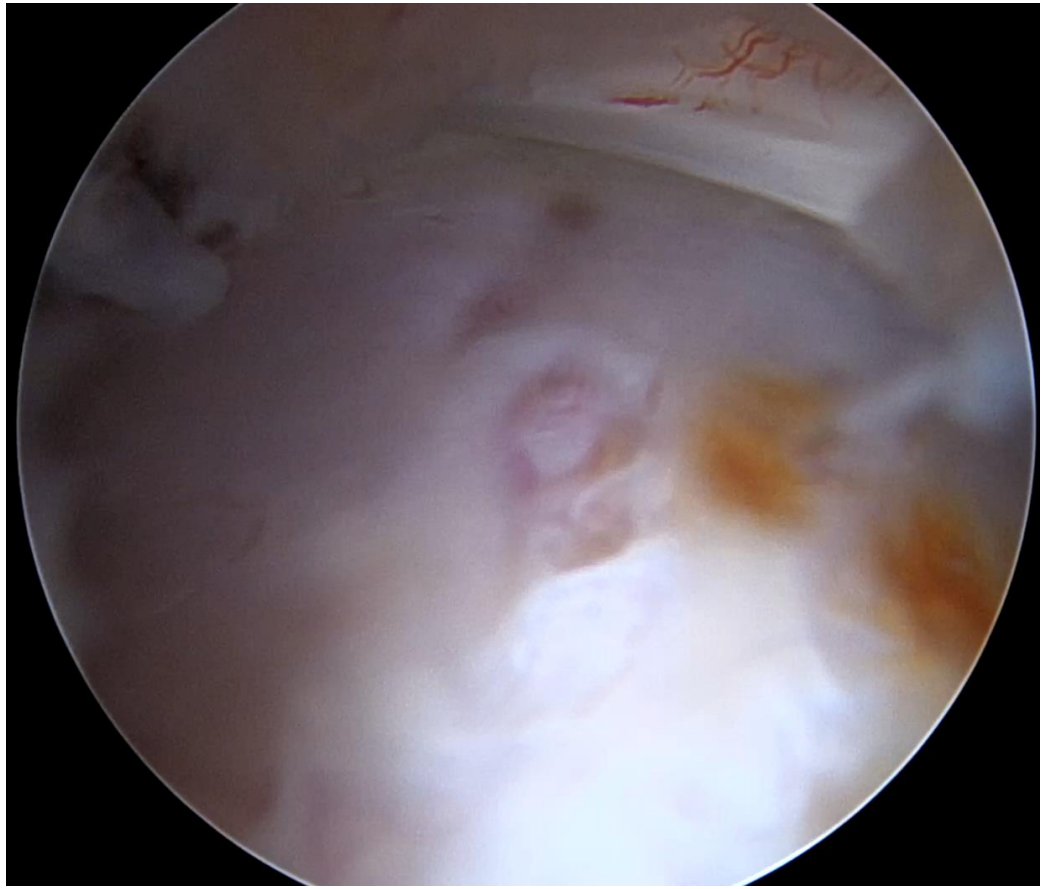
Lack of Seal



Restoration of Circumferential Seal

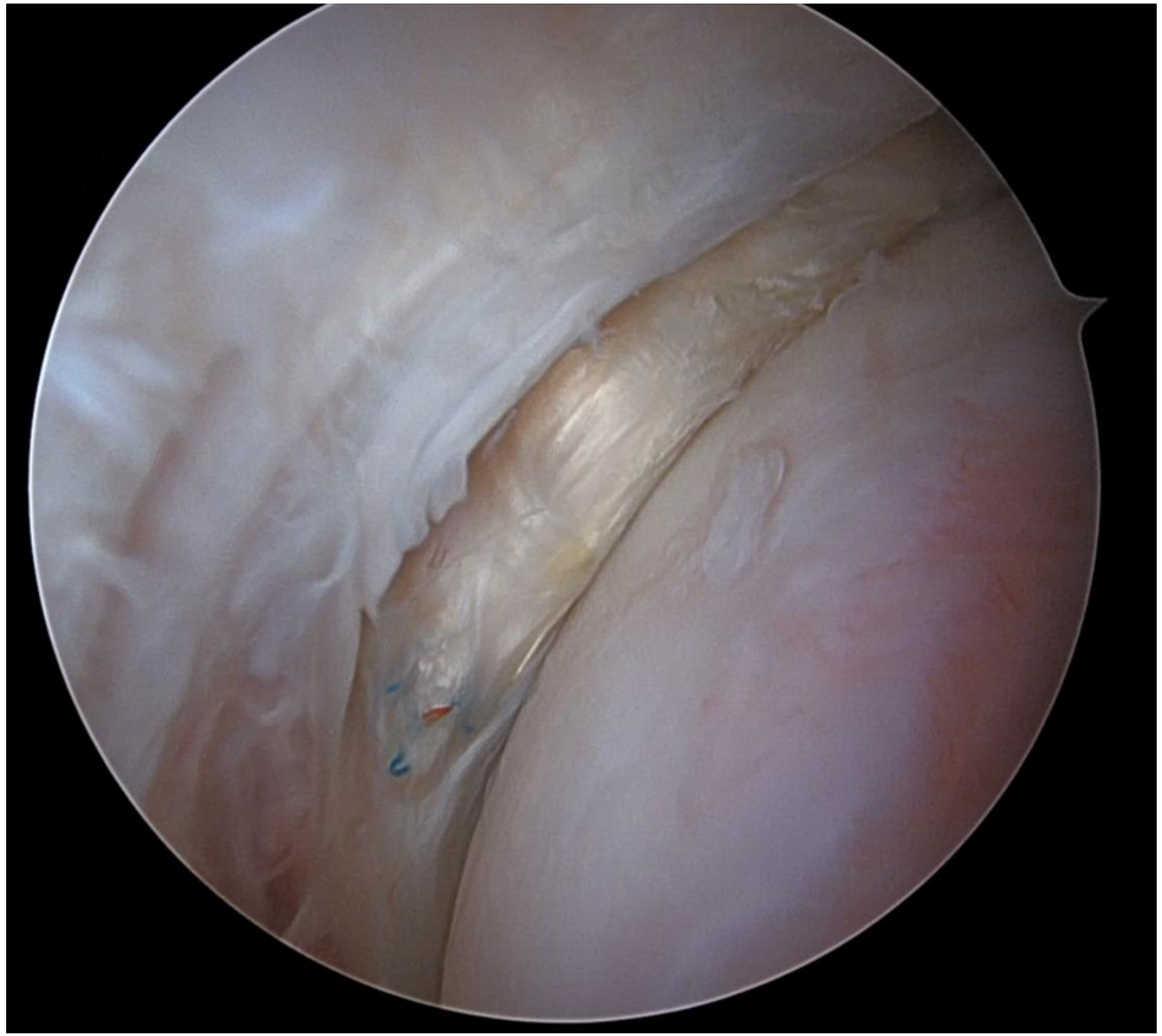
Posteroinferior



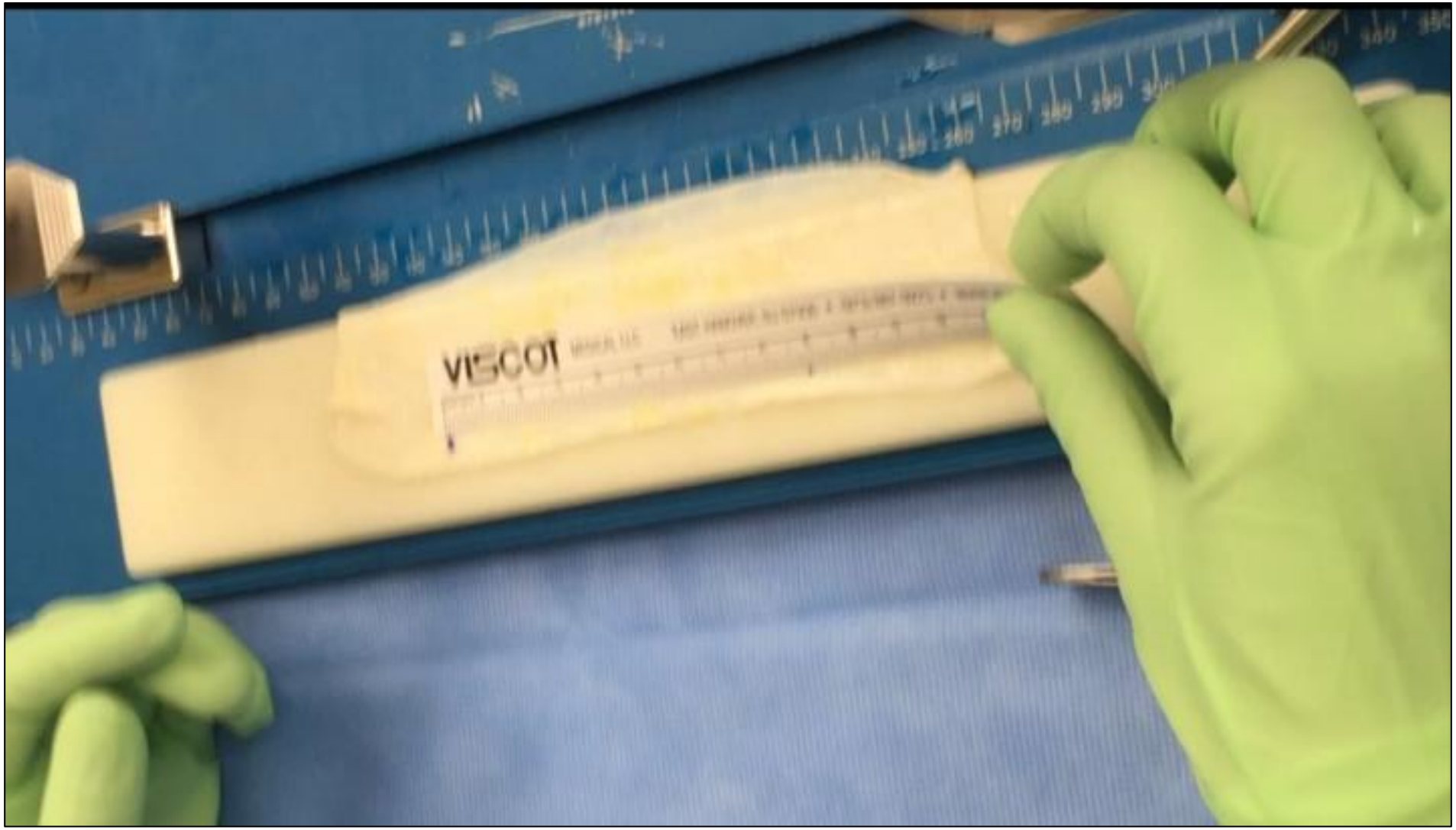


Anteroinferior

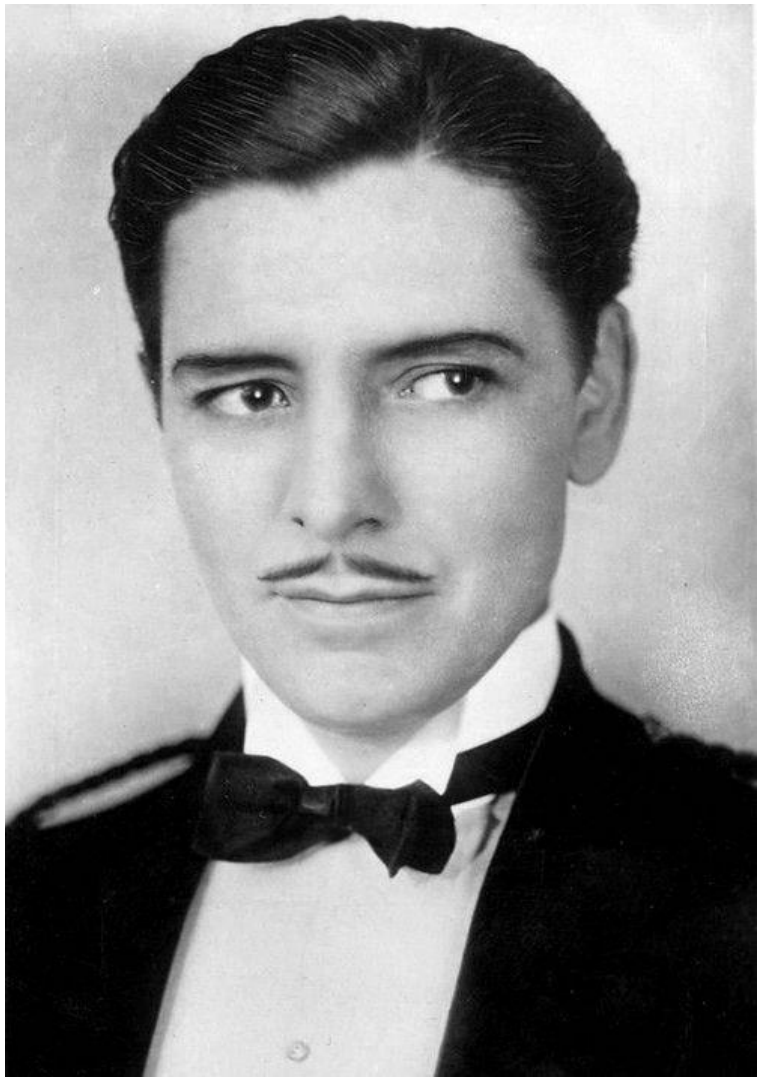
2 years post-op



What do we put in?



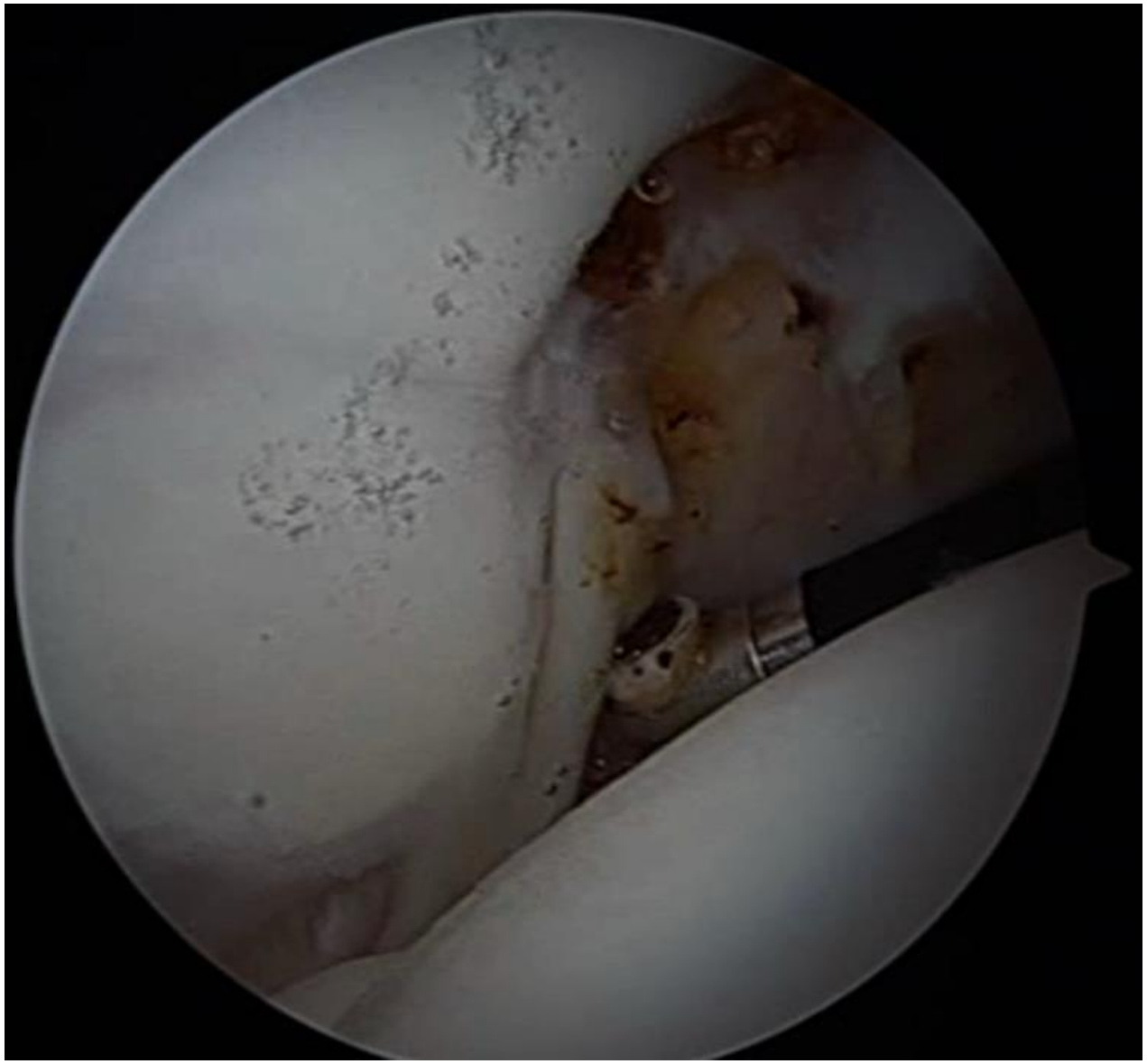
AVOID!



No Labral Mustaches!!

AVOID!

“Traditional” CLR



- Down to Transverse Acetabular Ligament anteriorly and posteriorly
- Emphasis on elimination of pain generators
- Not always necessary or desirable

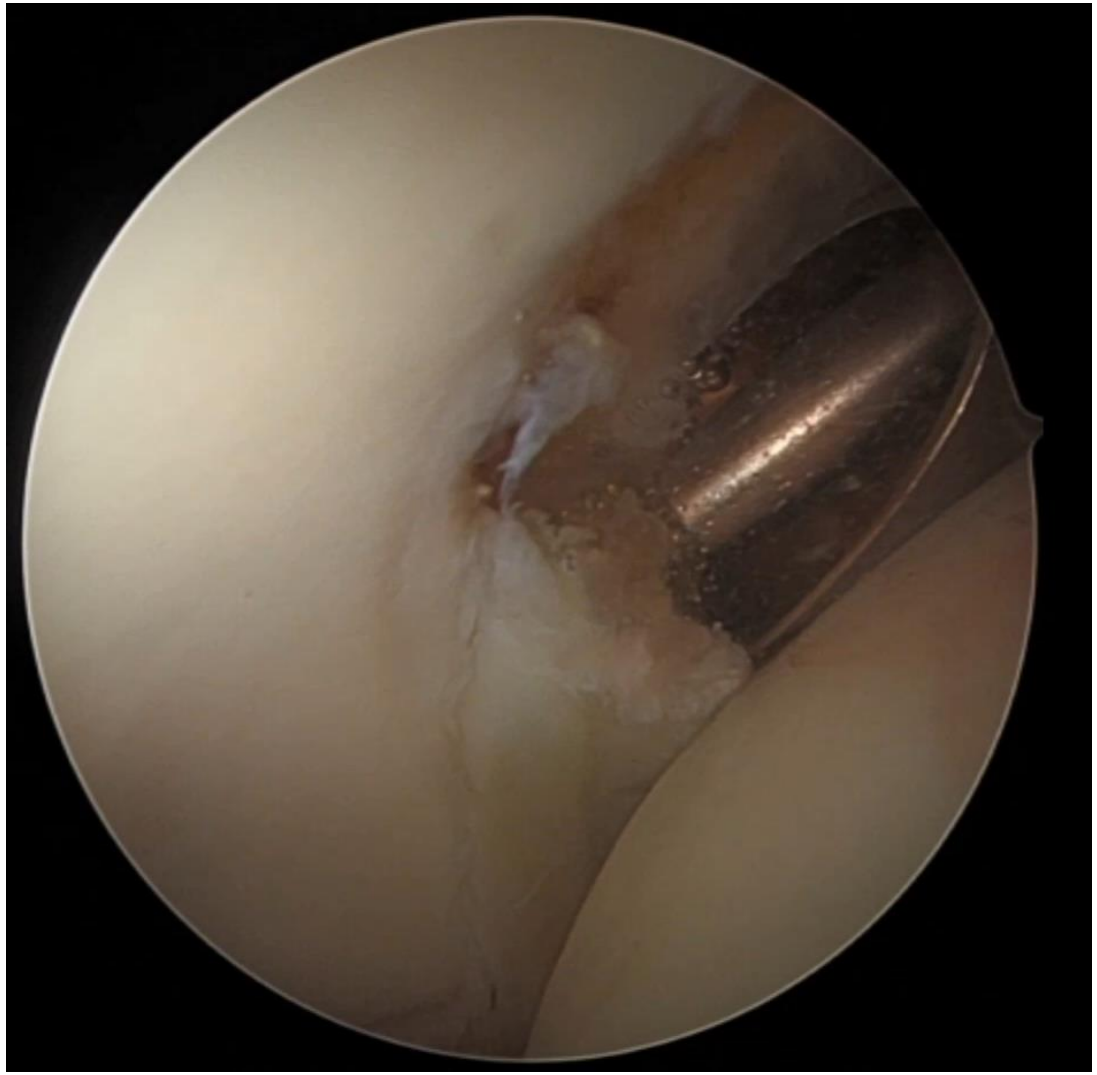
Tailor to Anatomy and Pathology

- More commonly, can effectively perform a labral augmentation antero-inferiorly and postero-inferiorly with a complete reconstruction in between.
- Good overlap by graft and anchors on both ends behind labrum

Tailor to Anatomy and Pathology

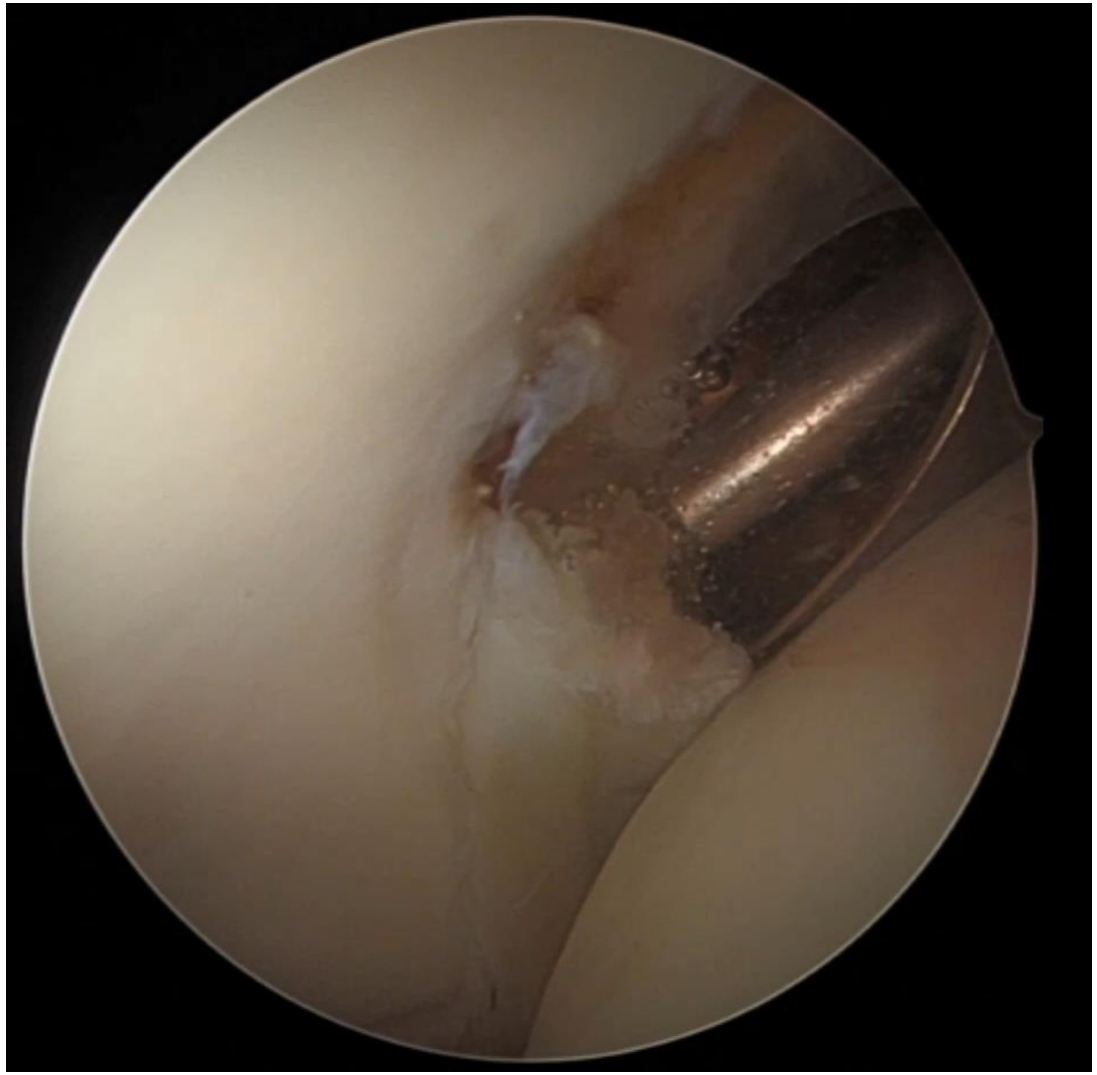
- Still do not want to be short (Mind The Gap!)
- Do not want to leave pathology unaddressed
- Choose a length that is safely too long and resect more labrum as needed to get a solid circumferential seal.
- Typical length 90 mm

Antero-inferior Dissection



- Anatomy antero-inferior is variable.
  - Hypoplastic
  - Tearing extending into TAL
  - Often adherent to iliofemoral ligament

Antero-inferior Dissection

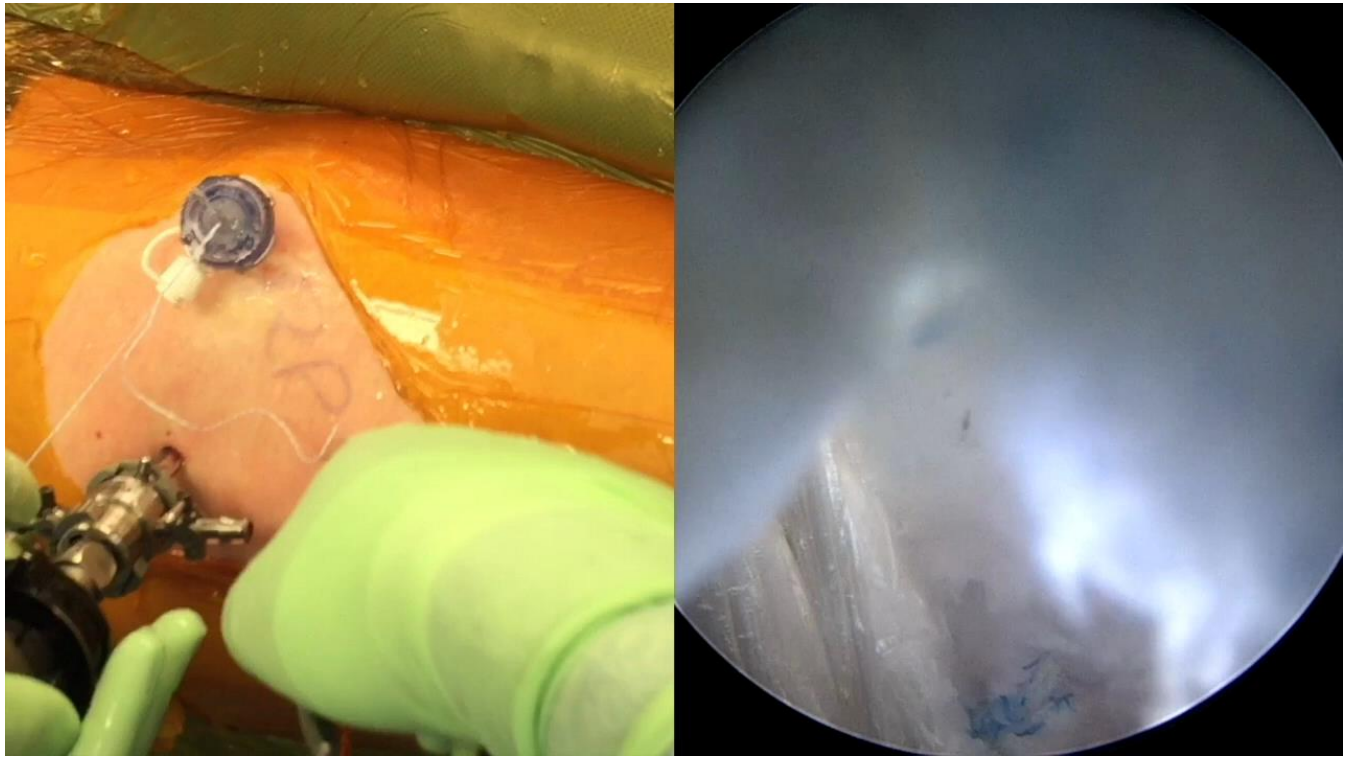


- Create a space for the graft to lie behind and augment the native labrum/TAL
- DO NOT violate iliofemoral ligament
- Take your time

Anchor Placement

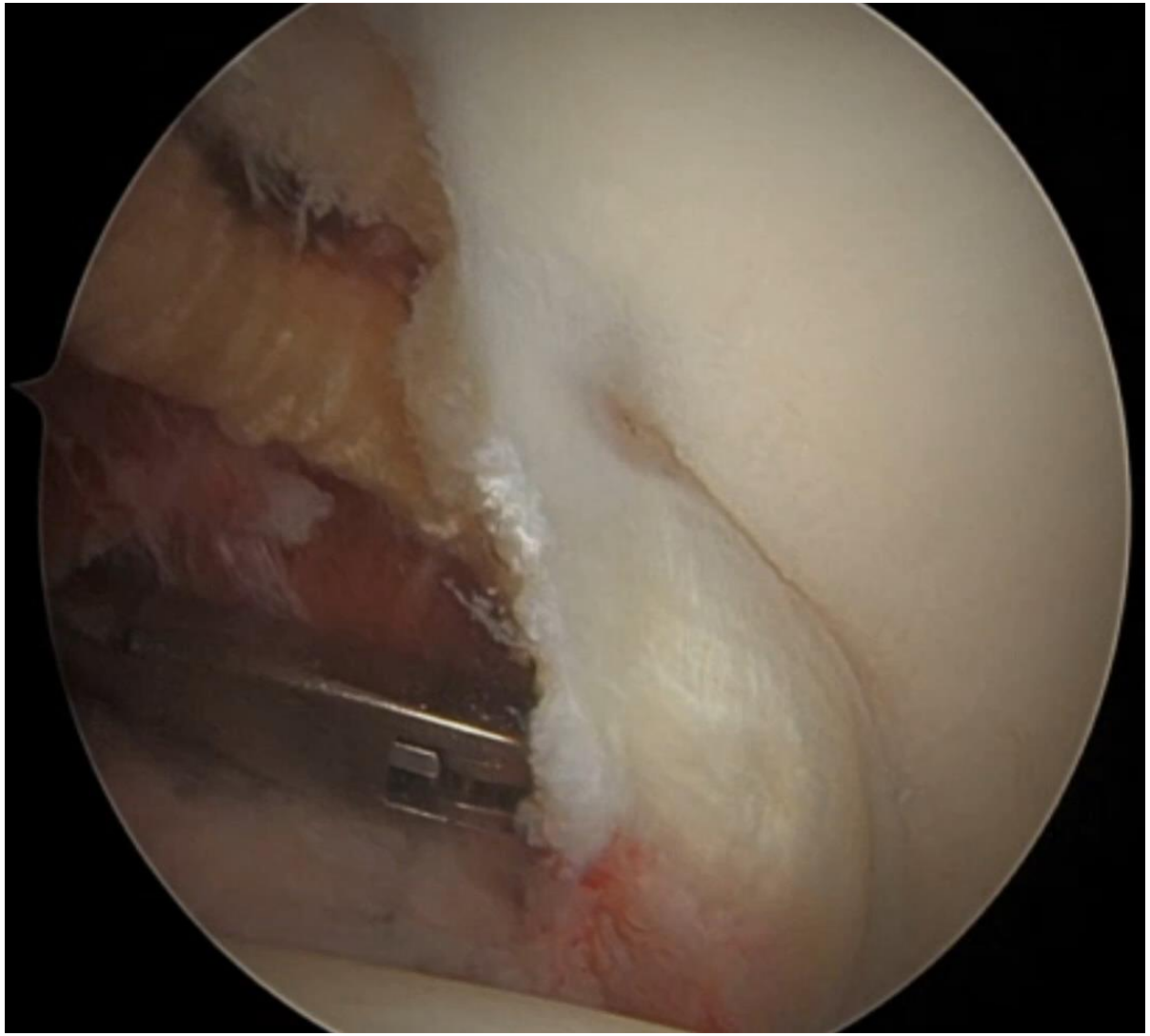
- Close as possible to rim
- Resist temptation to place two end anchors and then fill in the middle
  - Length (and tension) will be a big issue
- Can place several at once or one at a time

Graft Tensioning and Fixation



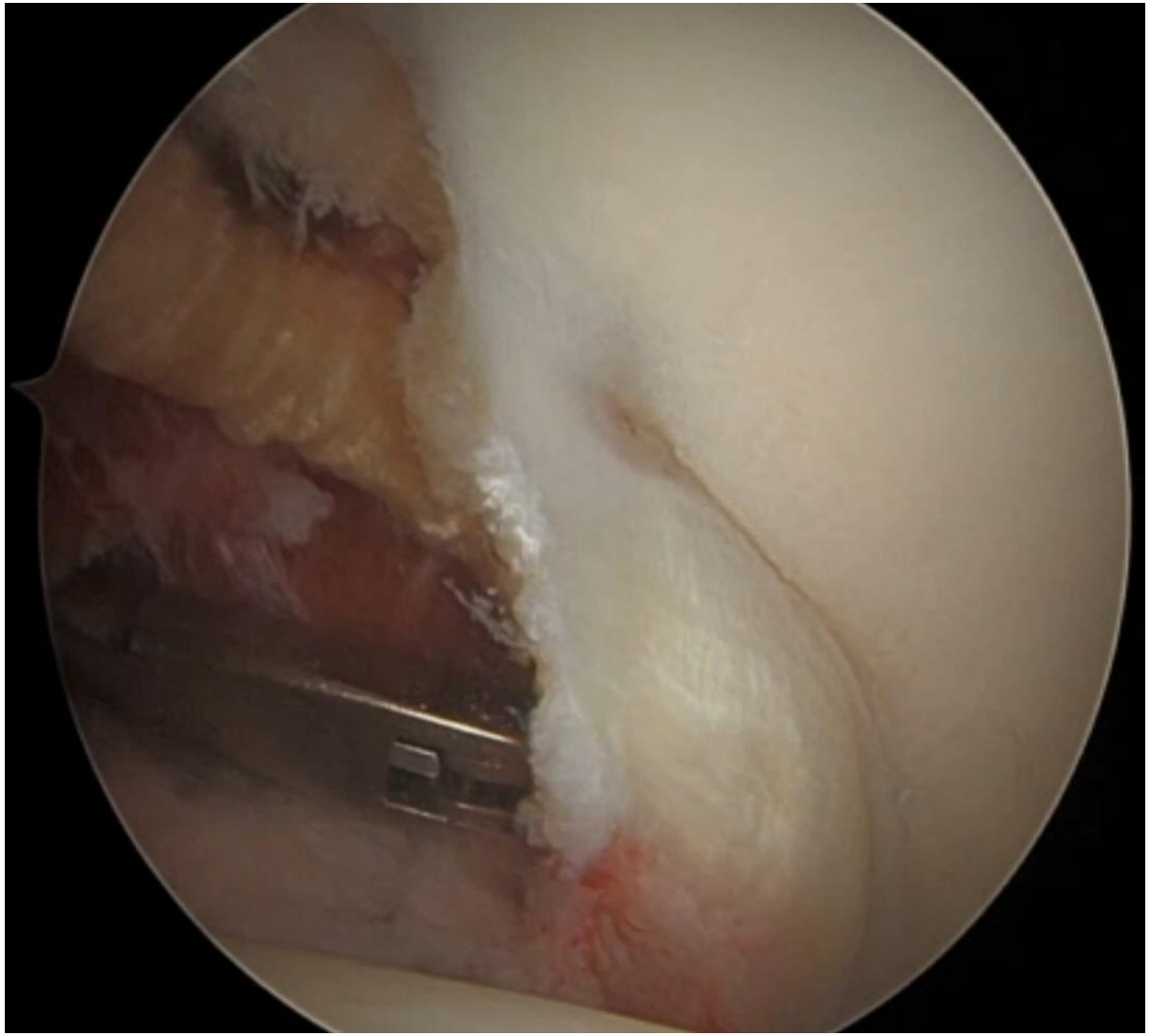
- Use atraumatic grasper thru DALA portal to place graft precisely on rim to ensure perfect tension and placement for each successive anchor
- Grab/manipulate graft as little as possible until 11-12 o'clock, then switch portals

Postero-inferior



- Less dicey
  - Unless ossified or coxa profunda, typically good tissue to be found below 9 o'clock
  - No psoas concerns
- Burr behind labrum in this area for subsequent anchor placement

Postero-inferior

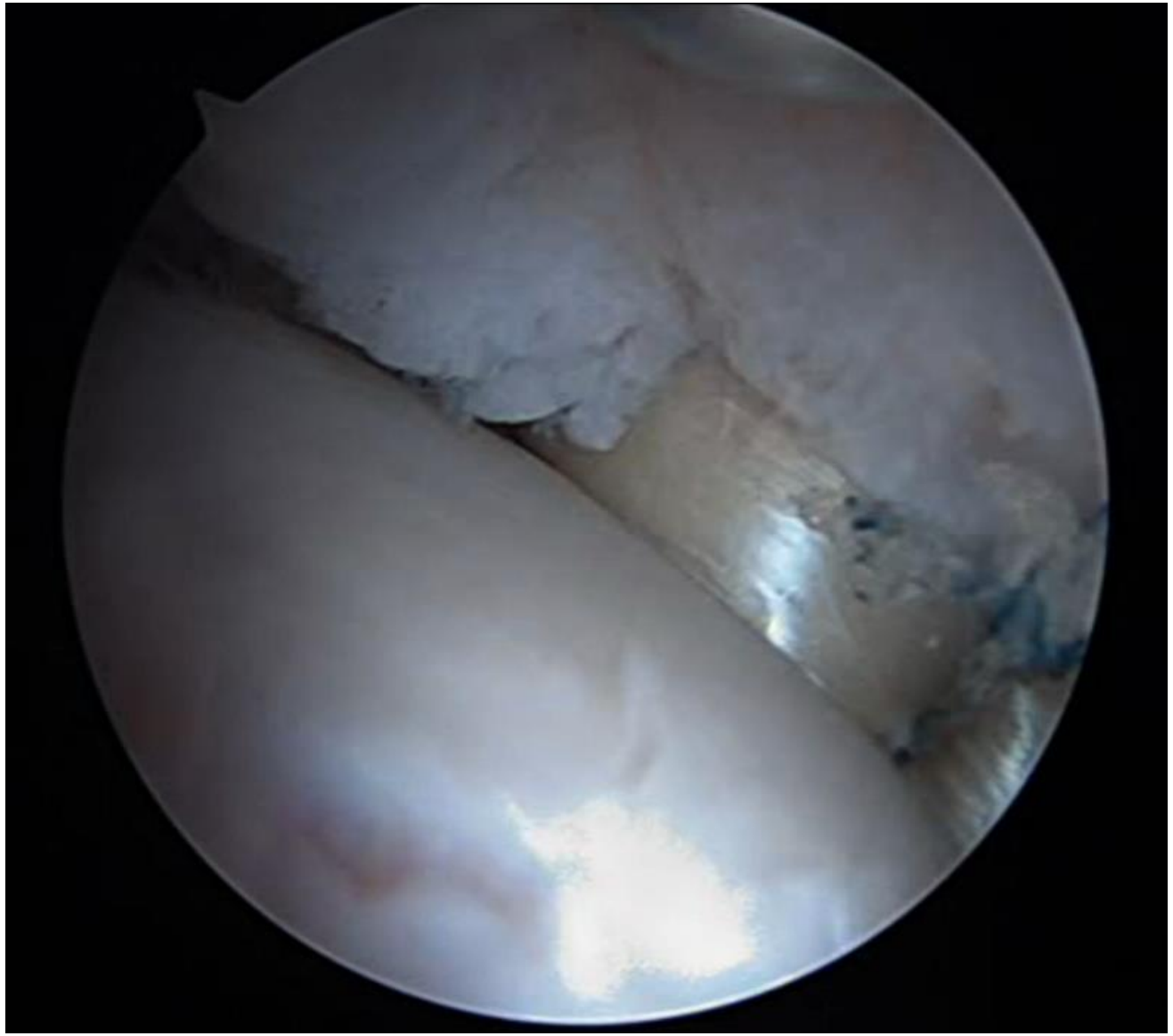


- Adjust labral resection to graft
- Adjust anchor placement
- Adjust suture placement thru graft
- Fine tune with LIGMA

LIGMA Anchor

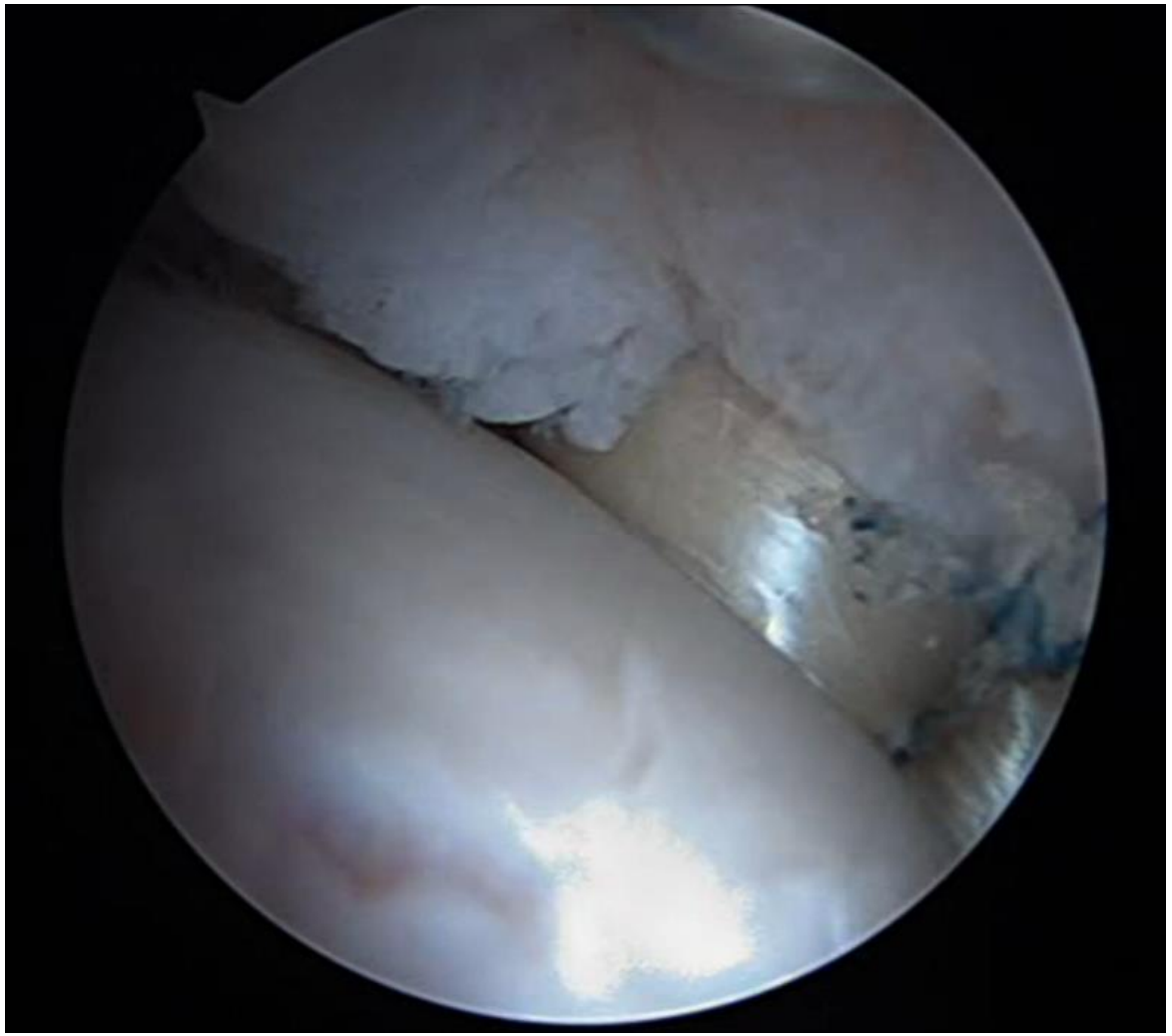
- Length Independent Graft Management Anchor
- 2nd most posterior anchor
- Makes final adjustment to tension and length
- A vertical mattress followed by a loop suture

Take Home Messages



- Eliminate pain generating tissue
- Restore suction seal circumferentially
- Consider augmenting ends, reconstructing in between—if pathology doesn't include far ant-inf or post-inf labrum

Take Home Messages



- Tailor your treatment to the patient's pathology
- Make it stable!
- No mustaches, no gaps!

Thank You!