

Minimally Invasive Total Hip Arthroplasty

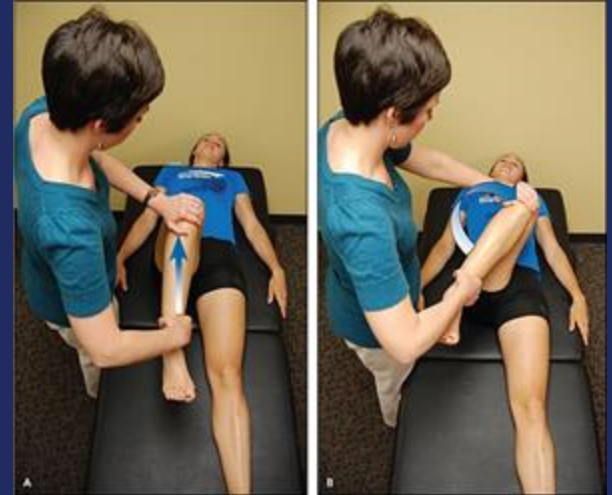
Summer Scholars Internship Program- Marisa Brito



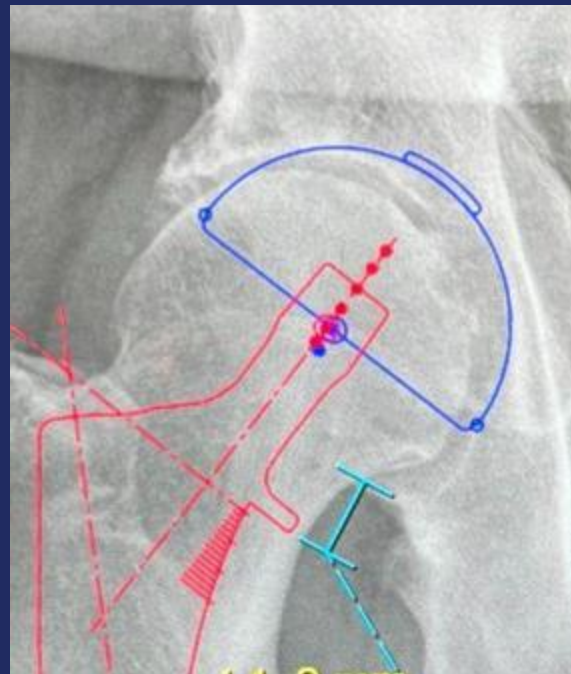
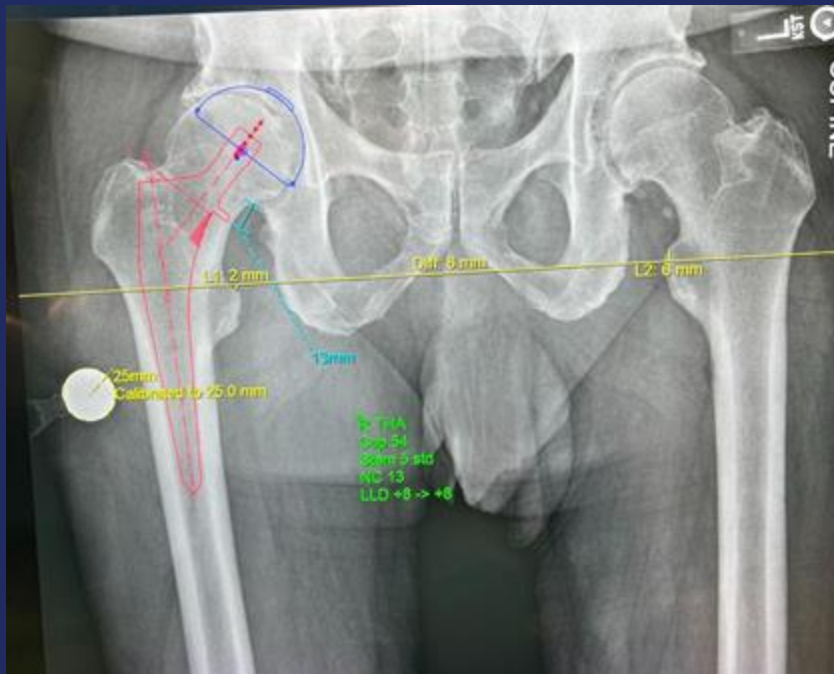
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Patient Case Example

- 69yo Male
- Physical Exam
 - Pain, tenderness around hip for several months
 - Limited ROM: Adduction and flexion contractures
- Imaging
 - Bone-on-bone osteoarthritis (femoral head and acetabulum)
- Eligibility
 - Comorbidities, Insurance, Support System



Pre-op Imaging



Pre-op Preparations

- Surgical Plan on X-ray
- Anesthesia Prep
- Sterility
- Draping
- Hana Traction Table (optional)



Surgical Approach

Initial Incision

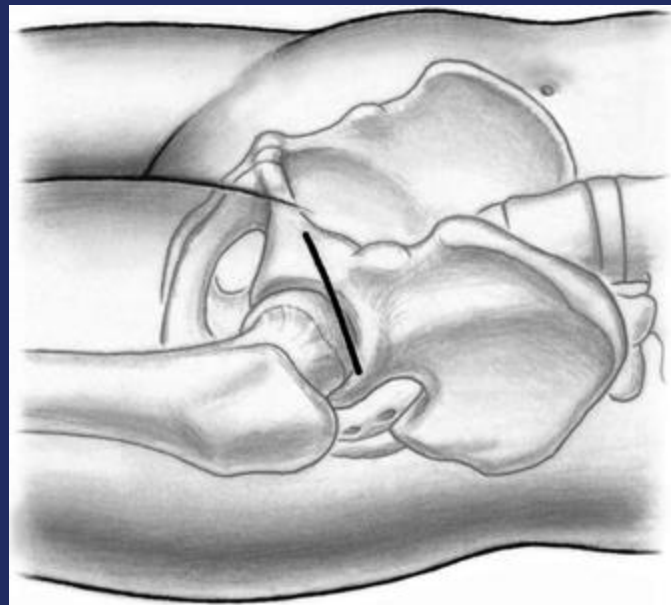
Superficial Dissection

Deep Dissection

Implant Insertion

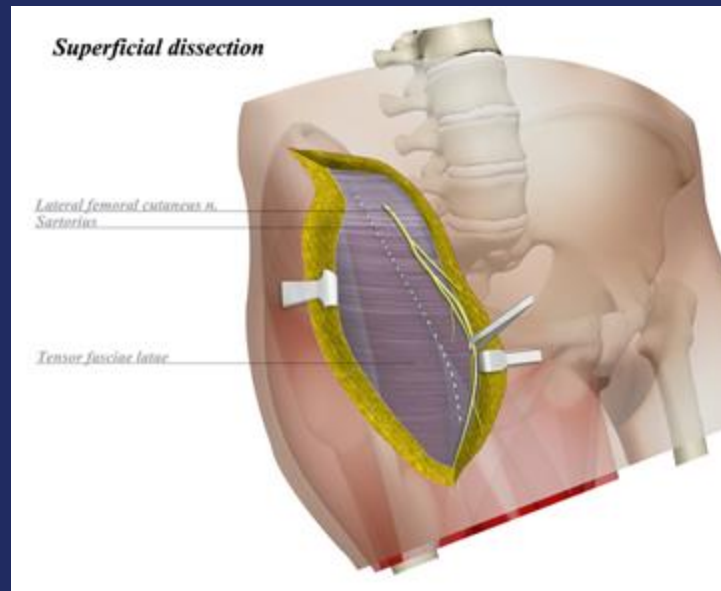
Initial Incision

- Bikini line incision centered in inguinal skin crease
 - Langer line → less tension
 - Aesthetic reasons
- 3 finger breadths below ASIS, roughly 30° angle up



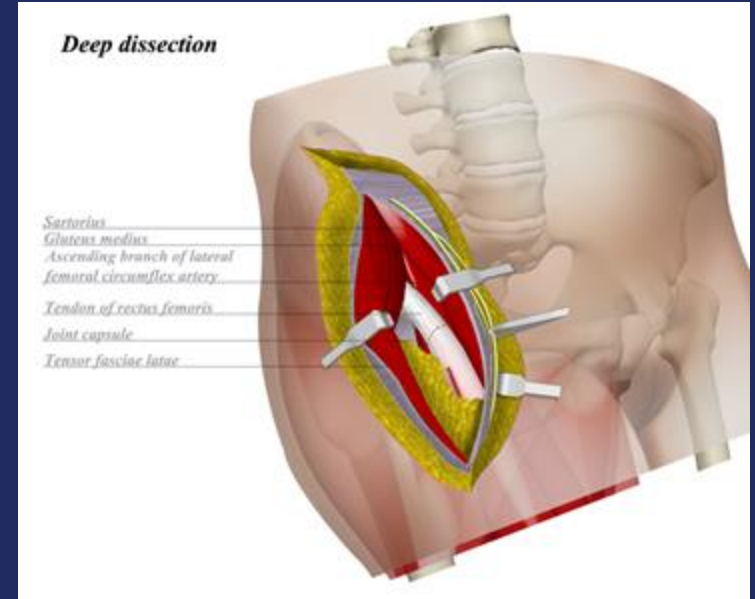
Superficial Dissection

- Locate tensor fasciae latae
- Dissect subcutaneous fat, retract **lateral femoral cutaneous nerve**
- Incise fascia of tensor fasciae latae
- Ligate/cauterize the ascending branch of the **lateral femoral circumflex artery** (crosses gap between sartorius and tensor fasciae latae)



Deep Dissection

- Identify intermuscular plane between rectus femoris and gluteus medius
- Retract rectus femoris and iliopsoas medially and gluteus medius laterally
- Externally rotate hip to stretch the capsule
- Incise capsule, mark neck cut based on template



Acetabulum

- Cut femoral neck to remove head
- Ream acetabulum
 - Circumferential bony bed of bleeding cancellous bone
- Insert acetabular cup
 - Porous surface promotes bone growth

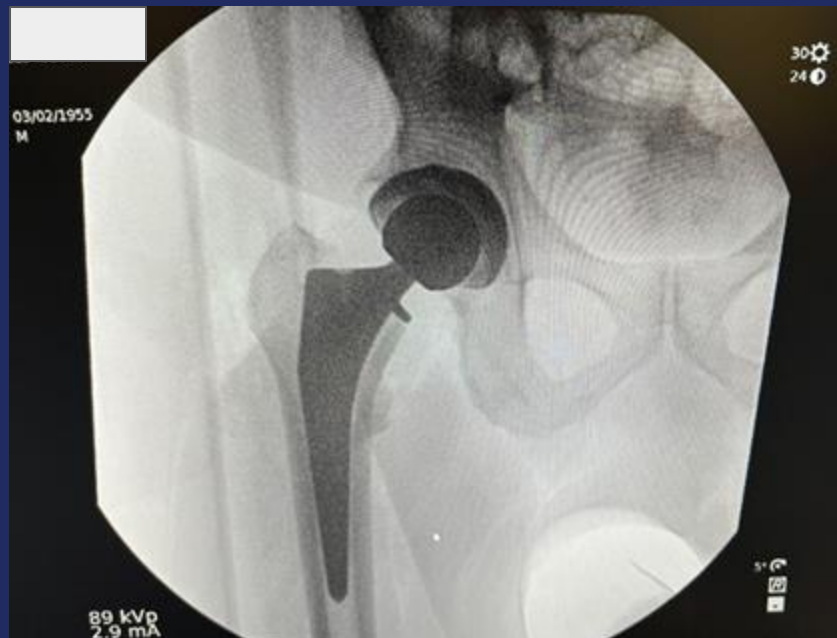


Femur

- Femoral broaches starting at piriformis fossa
- Trial head and neck, reduce hip, check for fit
- Dislocate hip, insert stem into femur
 - Center of the medullary canal
- Place ball on stem



Intra-op Imaging



Post-Op

- Continued Antibiotics
- PT immediately after surgery and continued after
- Follow up visit in clinic
- ~6 week primary recovery



Thank you!

Special thank you to Dr. Premkumar's team, all attendings, program directors, and fellow scholars!



References

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