Hip and Thigh Cases: Surprises

February 1-5, 2017

ACSM Team Physician℠ Course – Part II

Essentials of Sports Medicine: From Sideline to the Clinic

ACSM TEAM PHYSICIAN COURSE Part II
AMERICAN COLLEGE of SPORTS MEDICINE

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AMERICAN COLLEGE of SPORTS MEDICINE
LEADING THE WAY

Learning Objectives:

1. Show Hip and Thigh Cases which have unexpected final diagnosis.
2. Be able to interpret radiographic images of hip and thigh

I have nothing to disclose



What's the diagnosis?



What's the diagnosis?



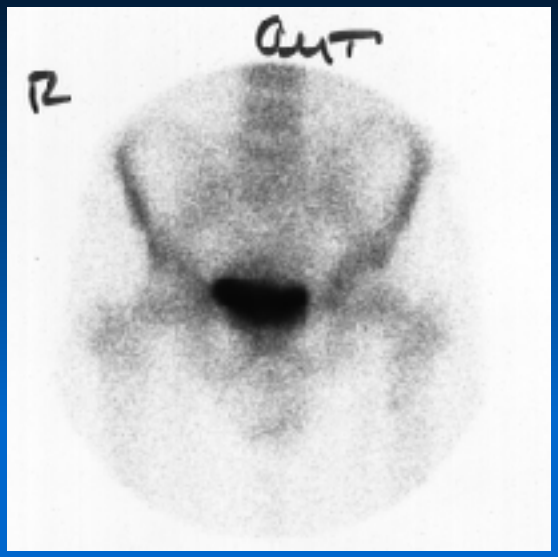
Hydroculator warm pack on the back

24 YO Graduate Student in exercise physiology

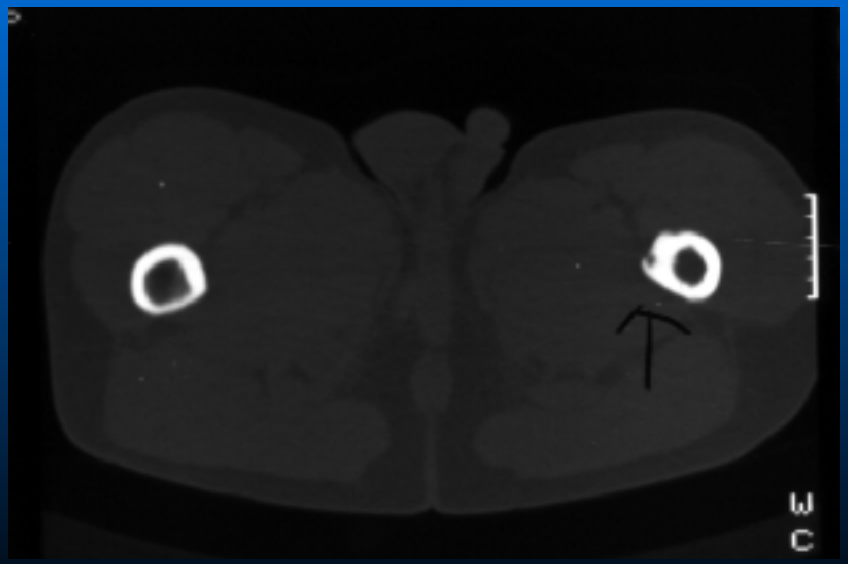
- C/O Left groin pain for 6 months
- He states “he has an osteoid osteoma”

Osteoid osteoma

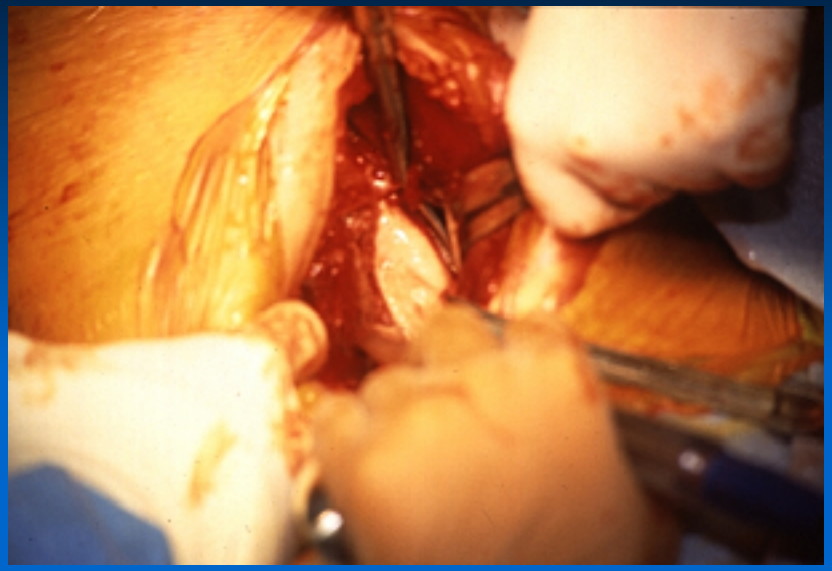


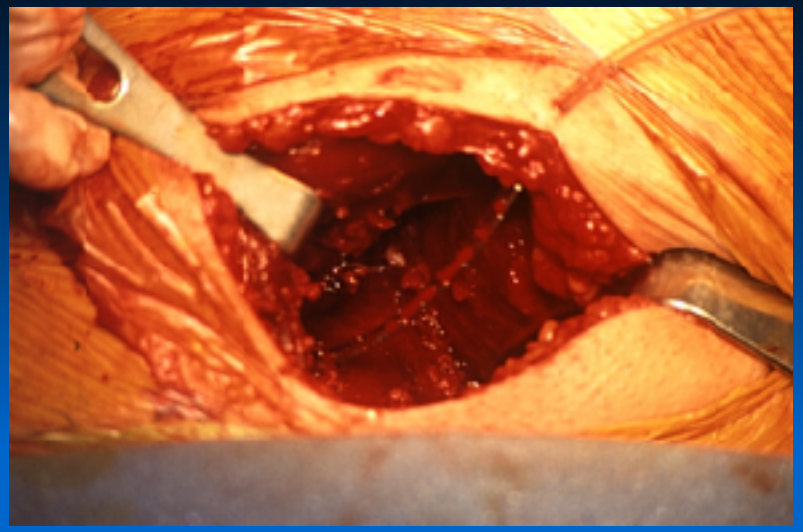


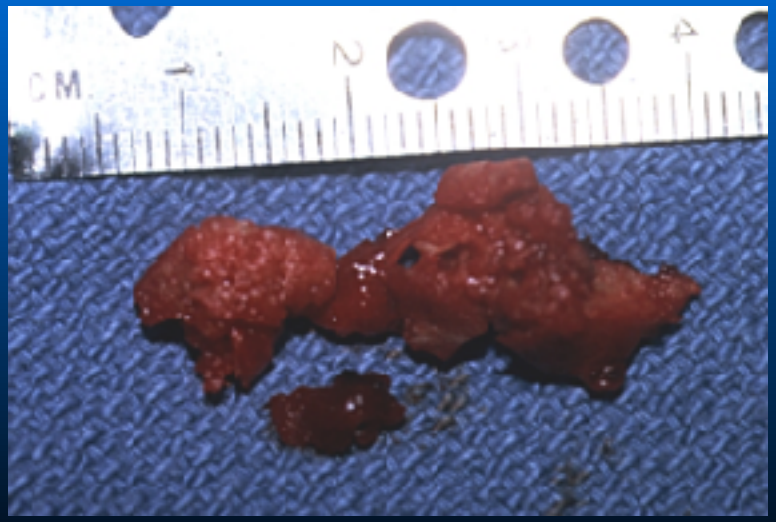




Osteoid osteoma









24 YO Graduate Student in exercise physiology

- C/O Left groin pain for 6 months
- He states “he has an osteoid osteoma”

He was Right!
Listen to your Patients.

Tumors of Bone



EOSINOPHILIC GRANULOMA

Figure 261. A roentgenogram of an eosinophilic granuloma shows bone loss and bone production involving the femoral medulla and cortex. Periosteal bone formation is present with suggestion of lamination. This 15-year-old boy had insidious onset of pain in the left thigh for three weeks. There had been no associated fever; clinically the lesion was interpreted as osteomyelitis or Ewing's sarcoma. No. 218757-329.

Spjut HJ, Dorfman HD, Fechner RD, and Ackerman LV, Tumors of Bone and Cartilage. In Atlas of Tumor Pathology. Second Series, Fascicle 5. 1970.

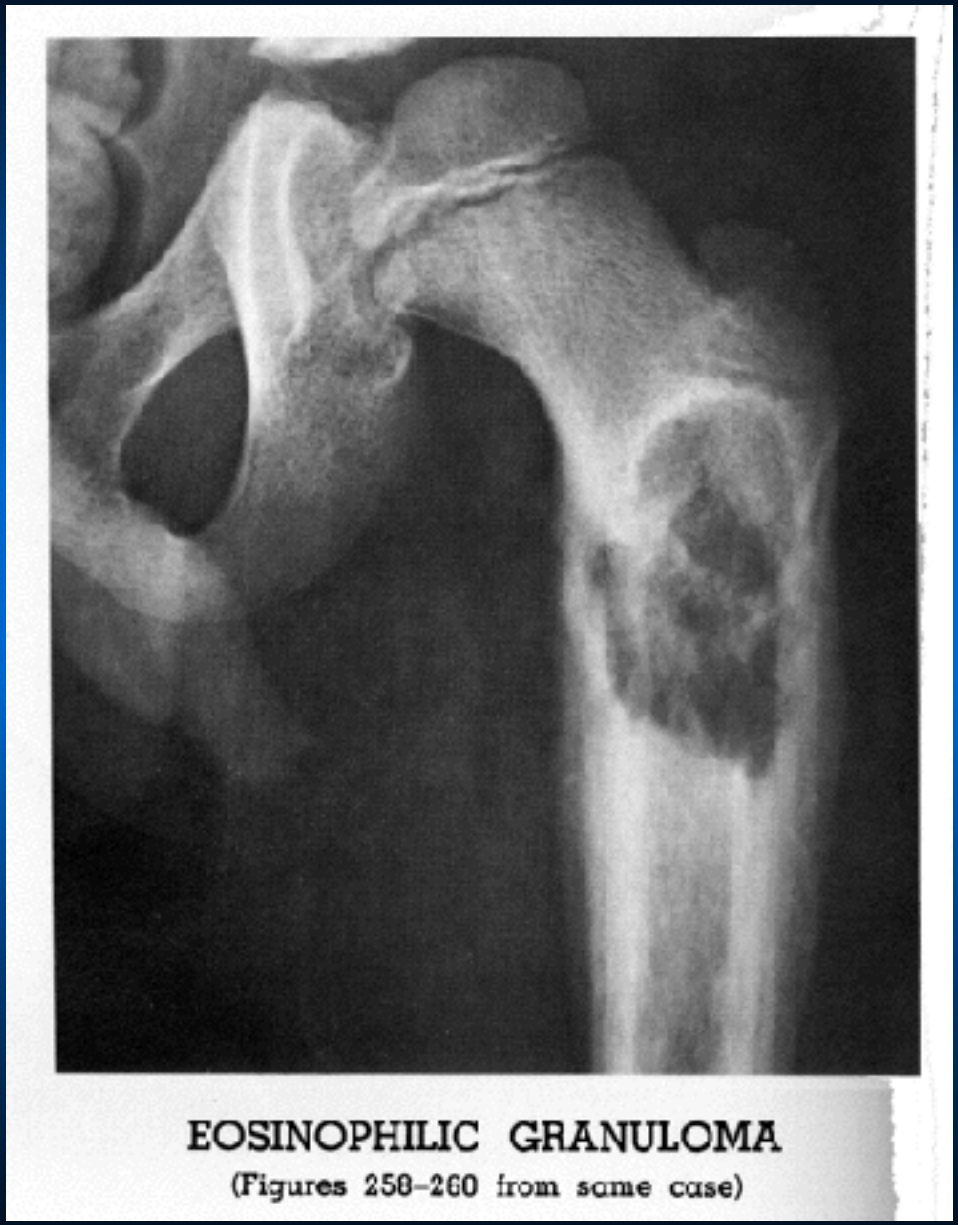
Tumors of Bone

Spjut HJ, Dorfman HD, Fechner RD, and Ackerman LV, Tumors of Bone and Cartilage. In Atlas of Tumor Pathology. Second Series, Fascicle 5. 1970.



Tumors of Bone

Spjut HJ, Dorfman HD, Fechner RD, and Ackerman LV, Tumors of Bone and Cartilage. In Atlas of Tumor Pathology. Second Series, Fascicle 5. 1970.



EOSINOPHILIC GRANULOMA

(Figures 258–260 from same case)

Tumors of Bone

Spjut HJ, Dorfman HD, Fechner RD, and Ackerman LV, Tumors of Bone and Cartilage. In Atlas of Tumor Pathology. Second Series, Fascicle 5. 1970.



SOLITARY BONE CYST
PREVIOUSLY TREATED
(Figures 389 and 390 from same case)

Tumors of Bone

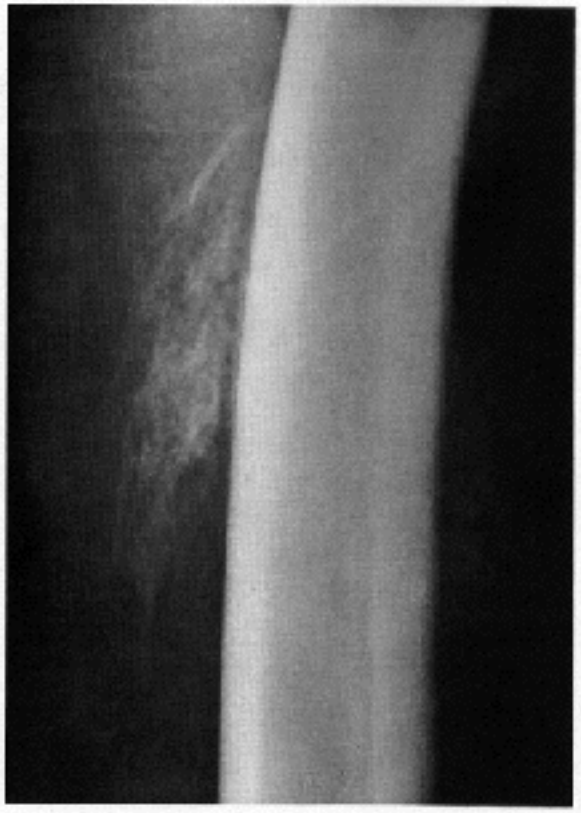


Fig. 463

LOCALIZED MYOSITIS OSSIFICANS

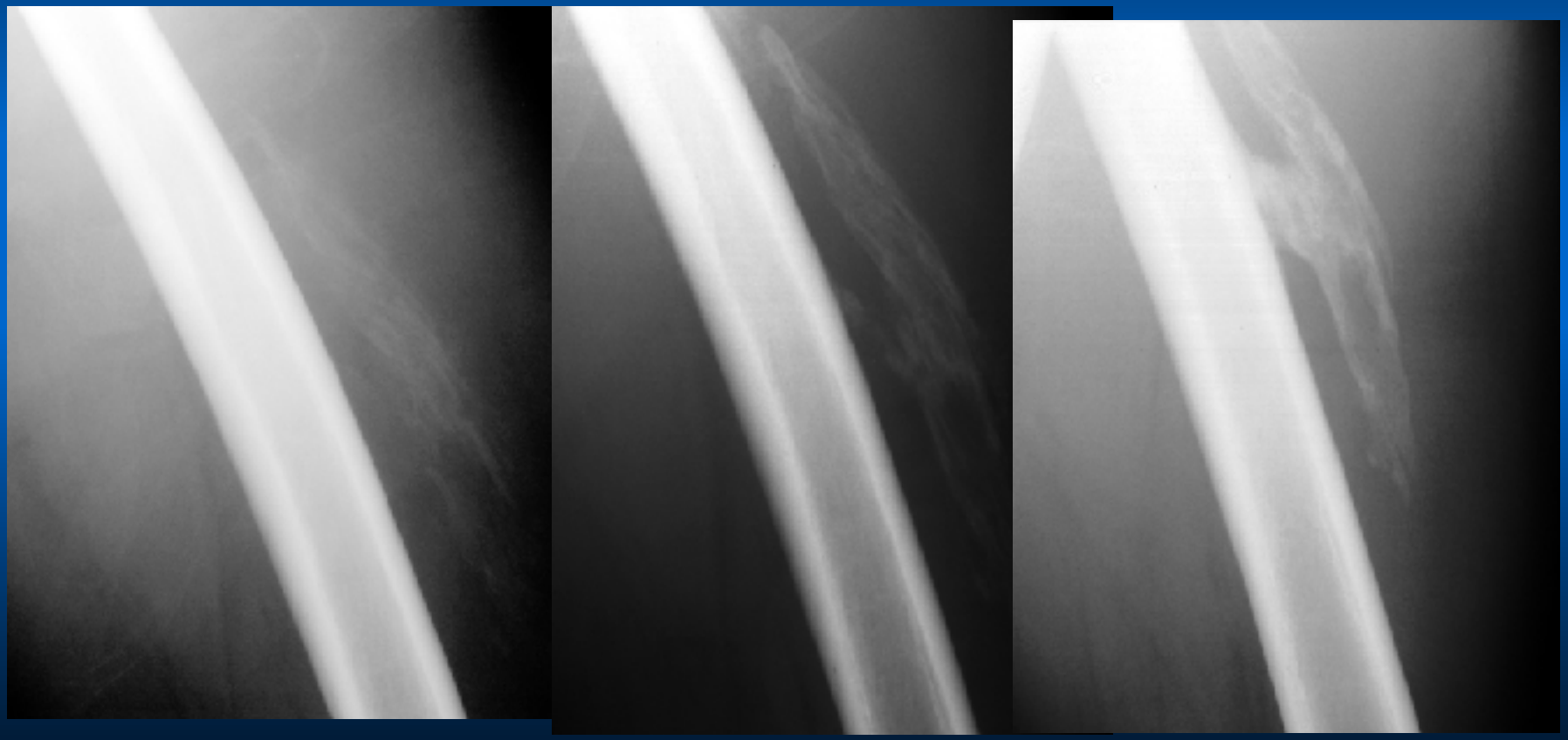
(Figures 463 and 464 from same case)

Figure 463. A roentgenogram made the fifth week after diagnosis of myositis ossificans in a child shows the characteristic "dotted veil" pattern. The medulla and cortex of the femur appear normal except for some periosteal reaction. No. 210757-313.

Spjut HJ, Dorfman HD, Fechner RD, and Ackerman LV, Tumors of Bone and Cartilage. In Atlas of Tumor Pathology. Second Series, Fascicle 5. 1970.

Cases I Have Treated

Myositis ossificans



17 YO High School Junior

- Developed thigh compartment syndrome after helmet to thigh contact injury in football game
- Underwent emergency fascial release
- Did well post-op, not allowed to return to play that season
- Sought another opinion and orthopaedist did not cleared him to play
- Communication to the coach by me worked and athlete did not play that season











Family practitioner

- Training for 10K July 4th run
- Significantly increased his mileage over a 2-week period
- C/O Right groin pain

Right hip femoral neck fracture in runner

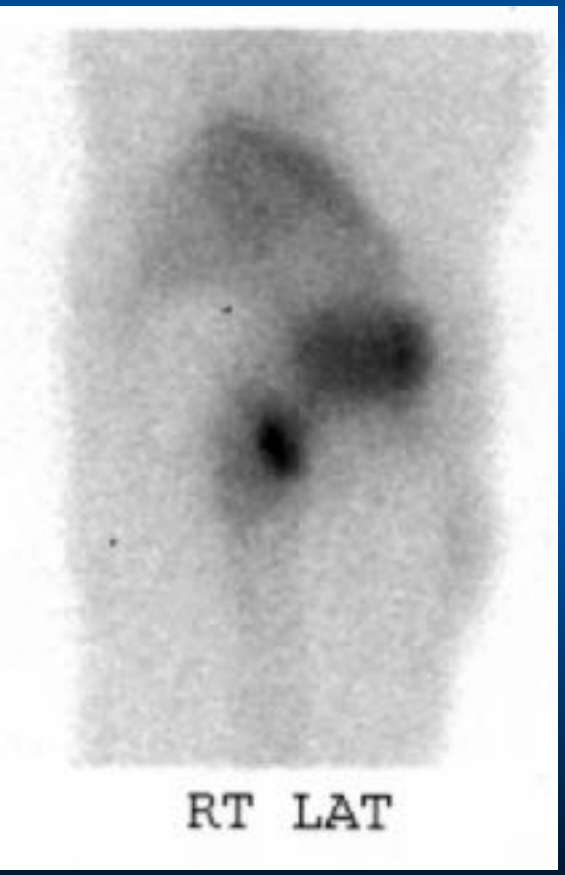


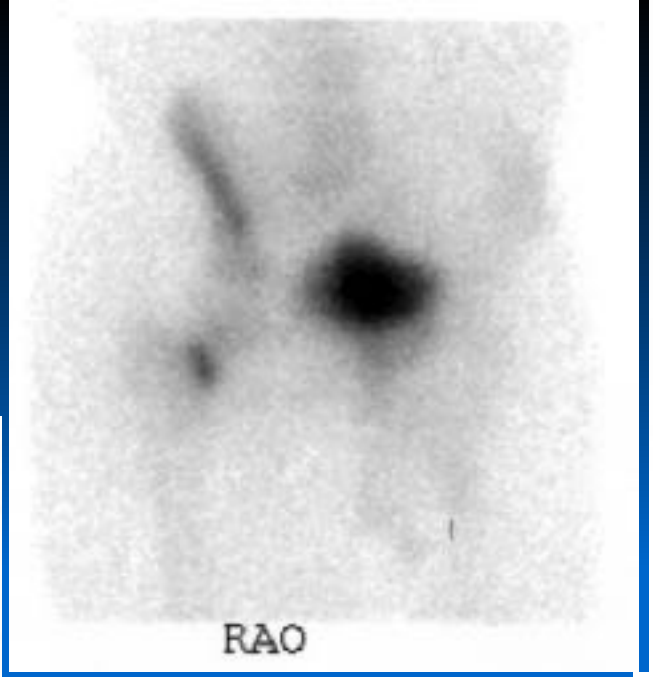
5 days post injury

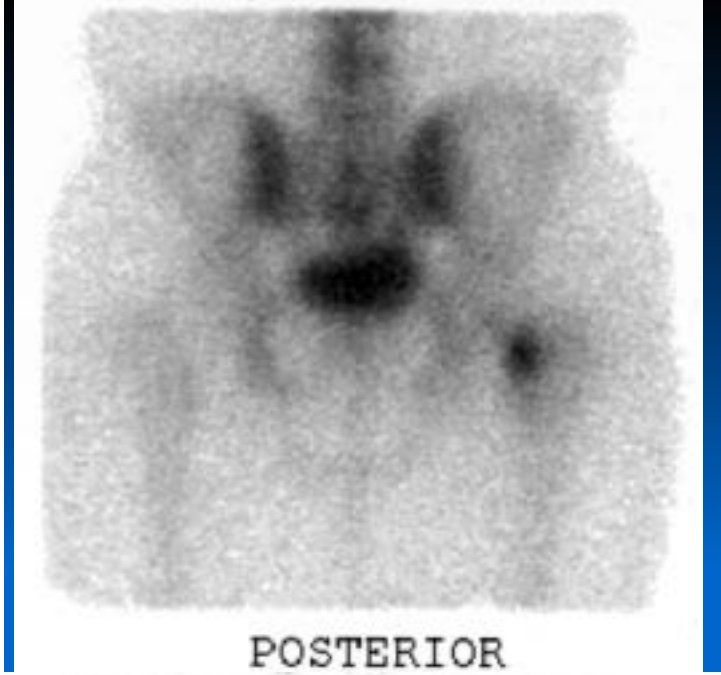


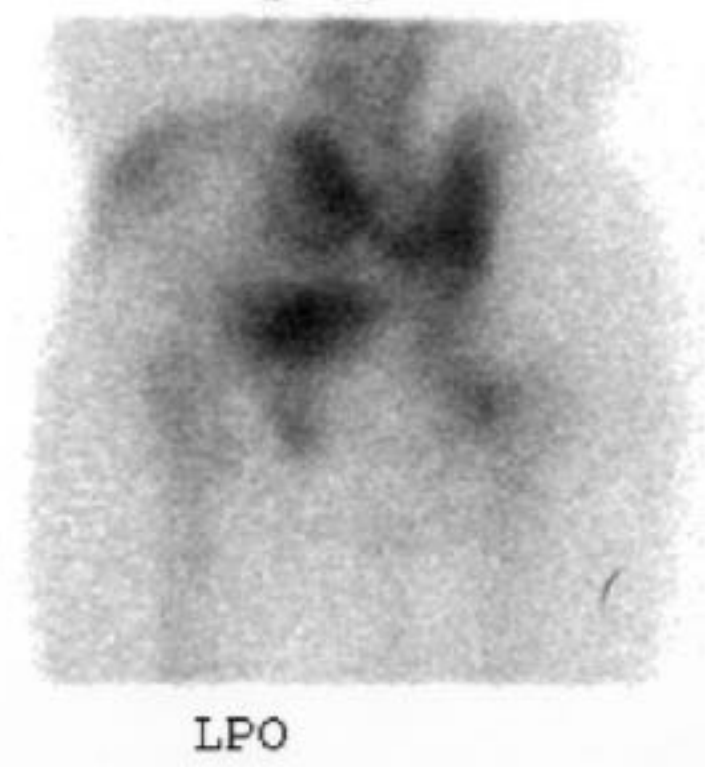


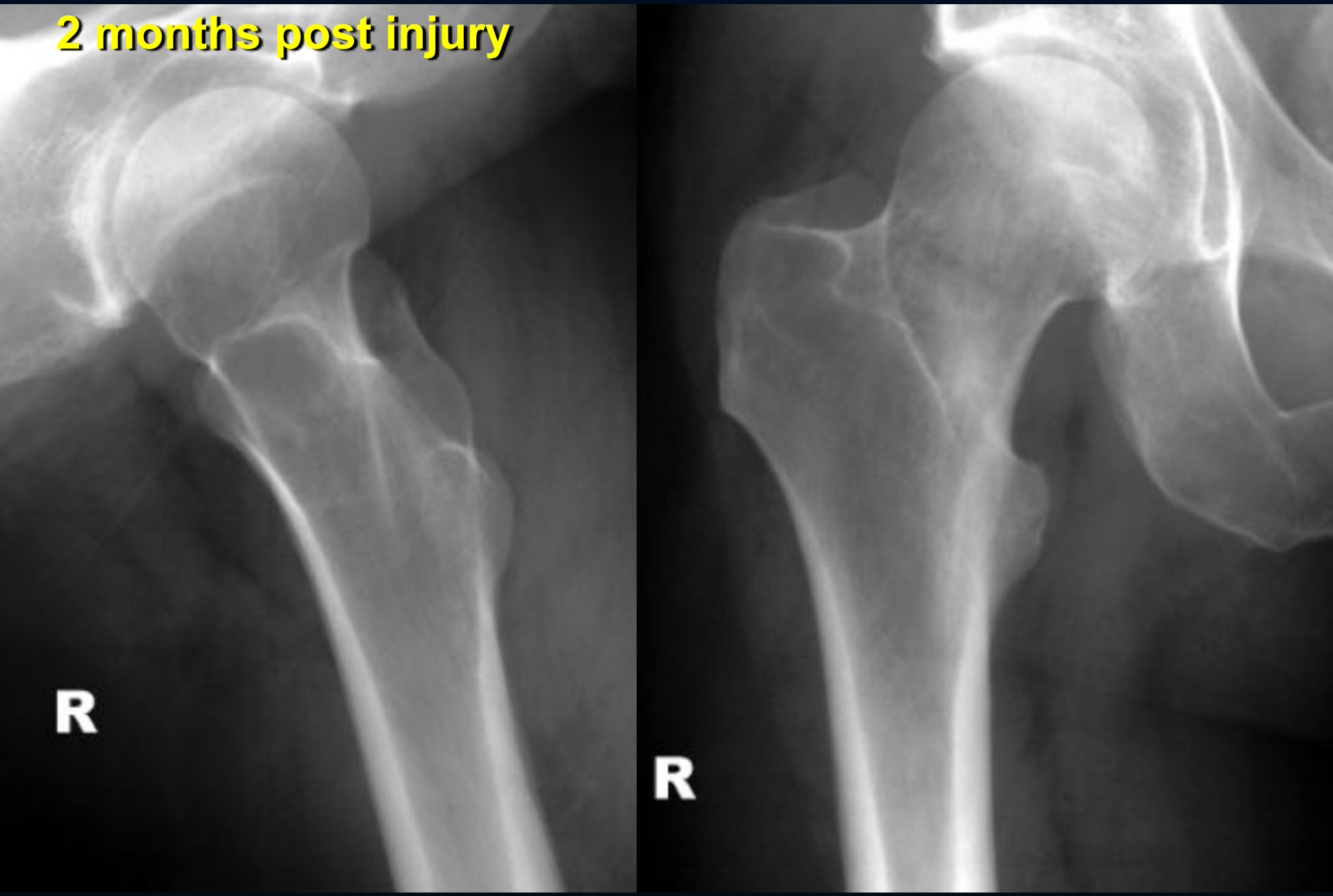
6 days post injury







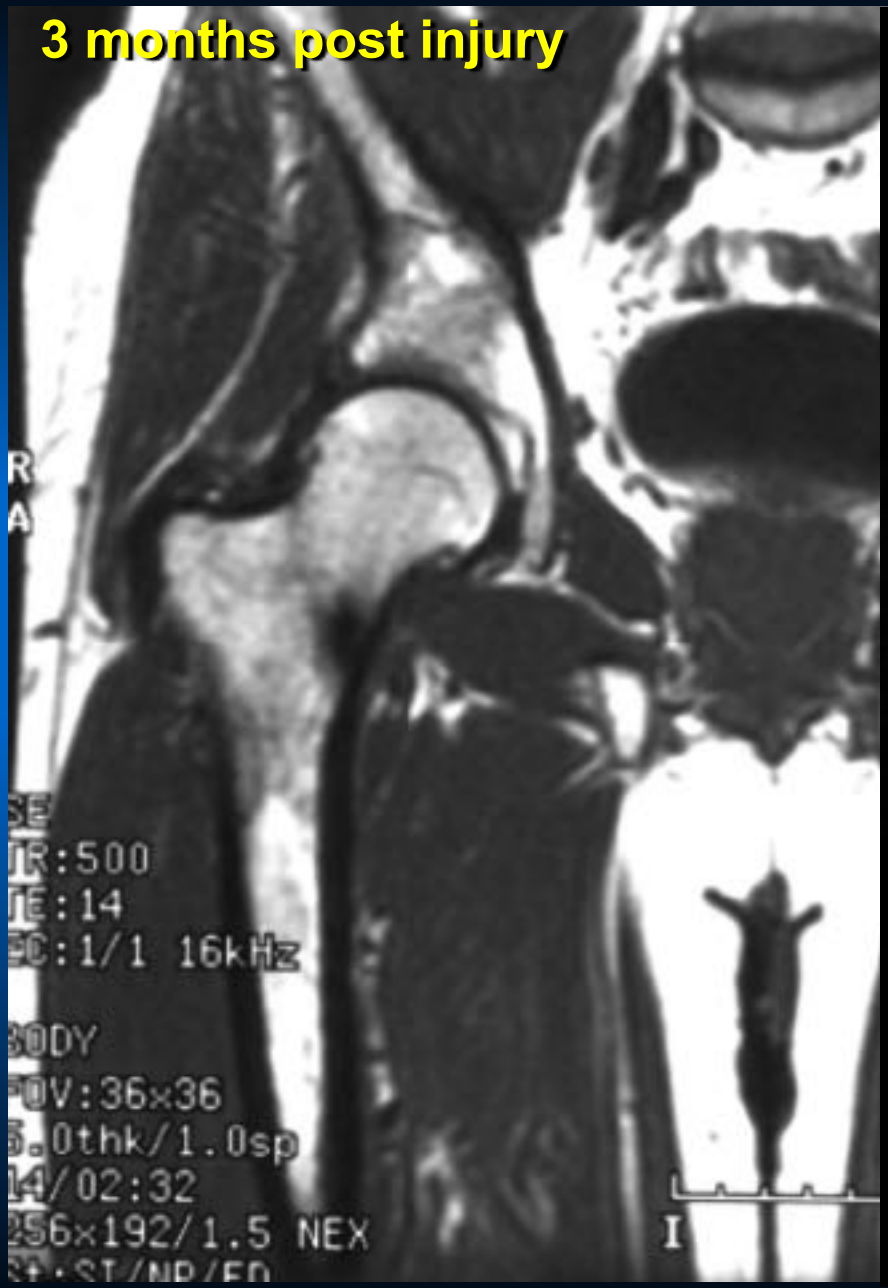



2 months post injury
R
R

3 months post injury






3 months post injury
R
A
SE
R:500
E:14
C:1/1 16kHz
BODY
FOV:36x36
5.0thk/1.0sp
14/02:32
256x192/1.5 NEX
I


R

4 months post injury



Baseball catcher

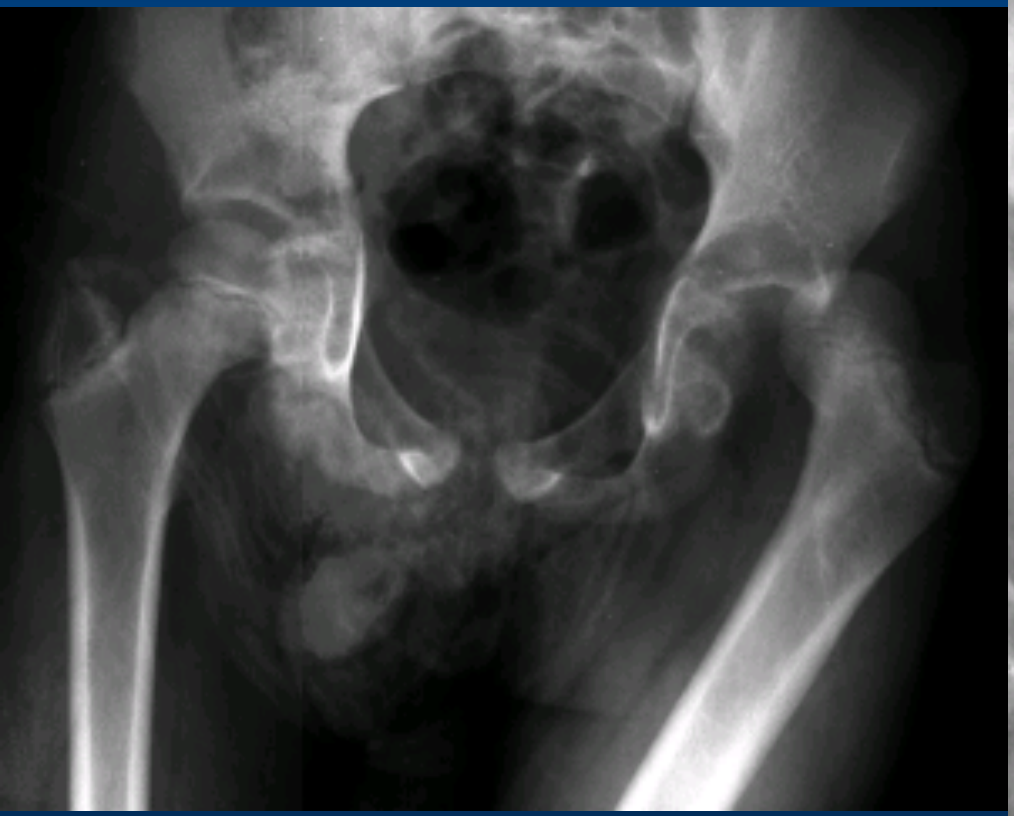
- C/O groin tightness
- Myositis ossificans adductor







9 YO Male Football Player





Injury

ER Physician

- Posterior Left hip dislocation
- R/O Salter fracture proximal femur

Accurate Diagnosis

- Initial diagnosis: testicular torsion
- Why? Patient in a lot of pain and unable to move, kept hip in Adducted position

Initial films









Post reduction



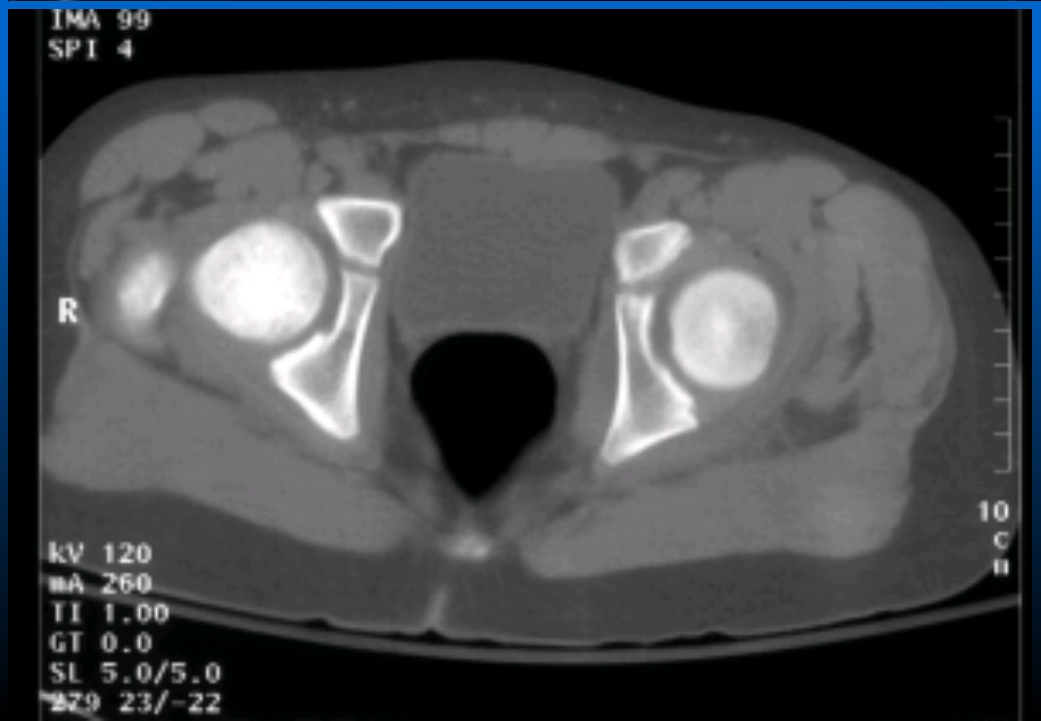


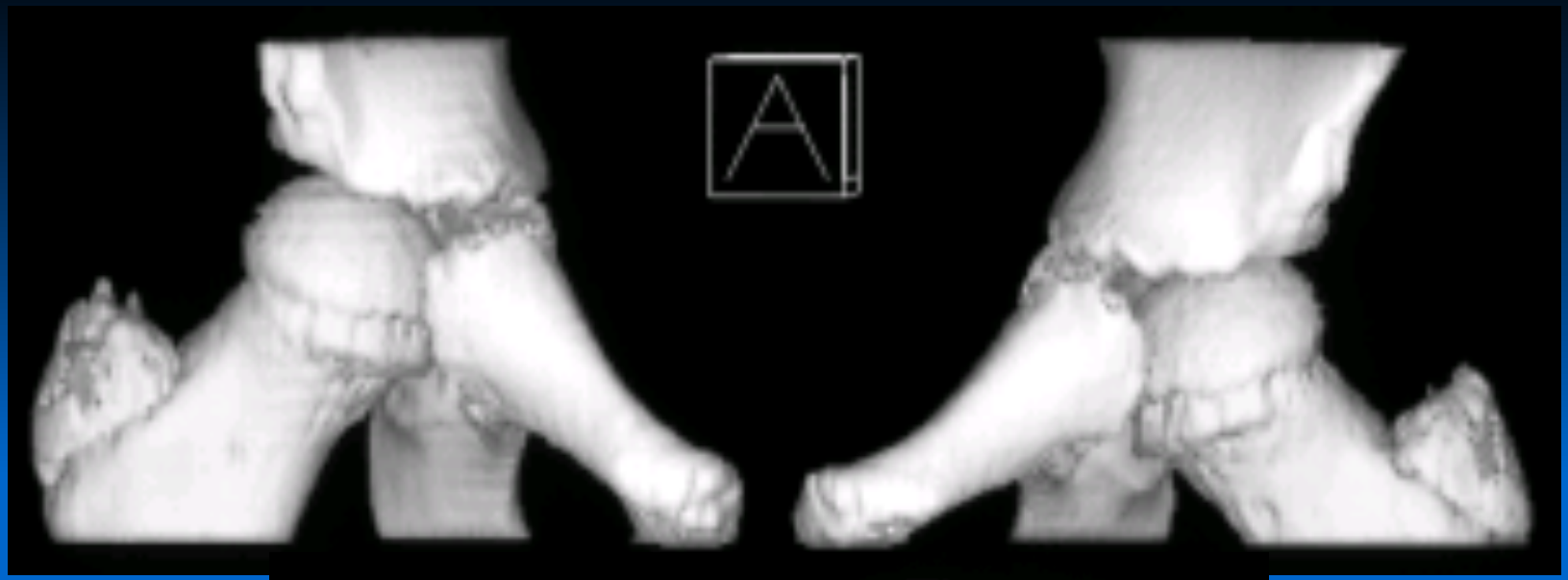
Lateral - post reduction

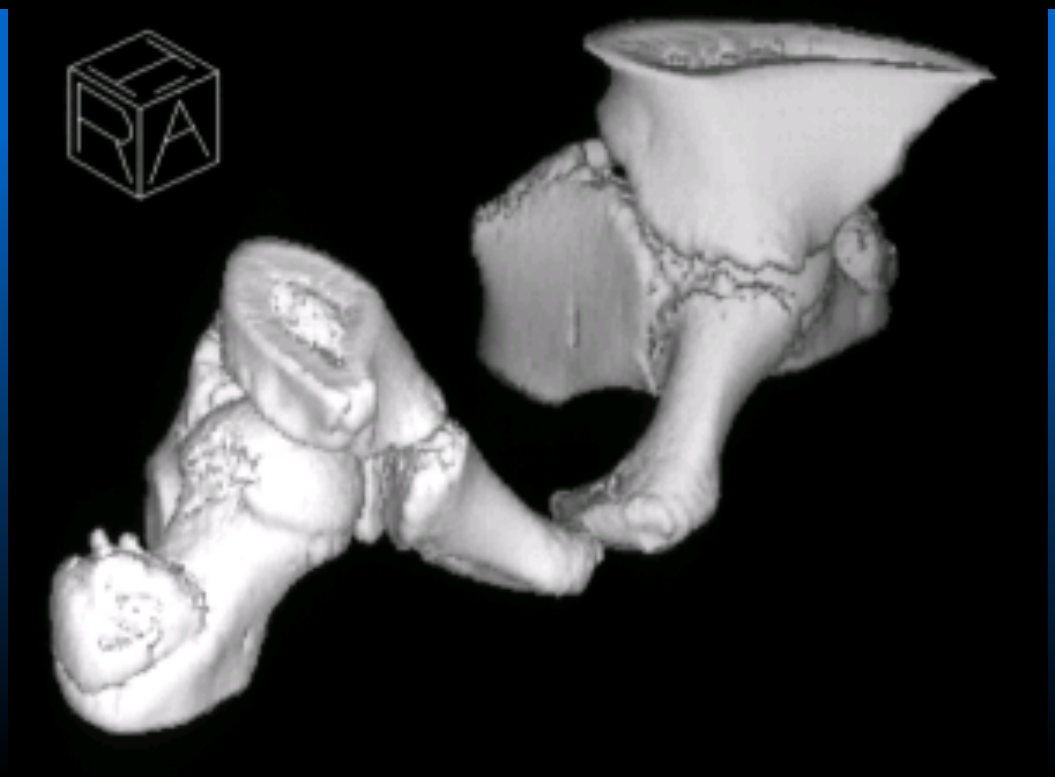
Reducing Posterior Hip Dislocation

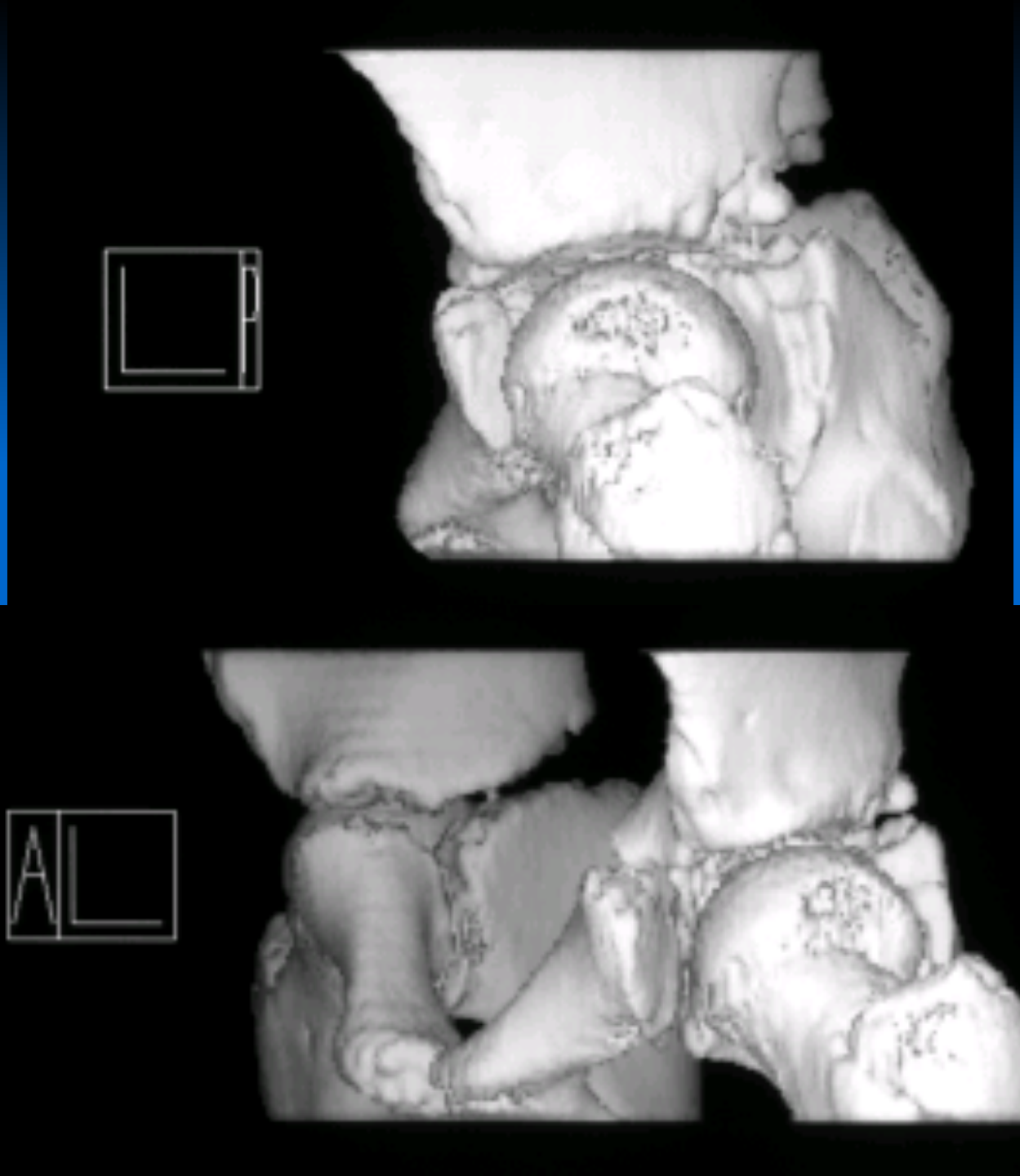



IMA 100
SPI 4
R
10 cm
kV 120
mA 260
TI 1.00
GT 0.0
SL 5.0/5.0
WL 23/-22


IMA 99
SPI 4
R
10 cm
kV 120
mA 260
TI 1.00
GT 0.0
SL 5.0/5.0
WL 23/-22


A


R
A


LP
AL

13 YO WM
C/O Knee Pain x 18 months
Pain on ROM
Hip Radiating to Knee


R
HA

ROM and Gait



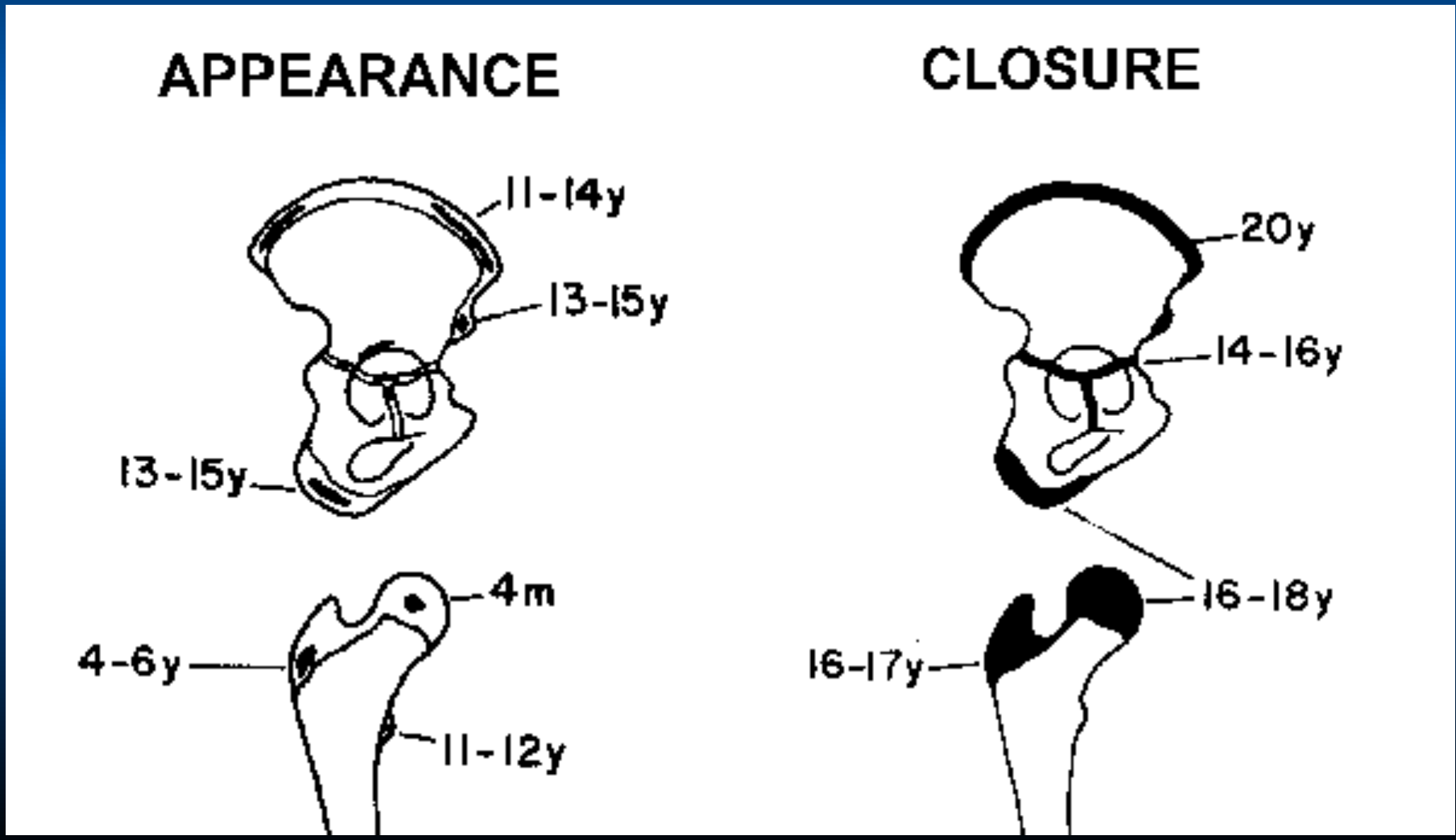
SCFE

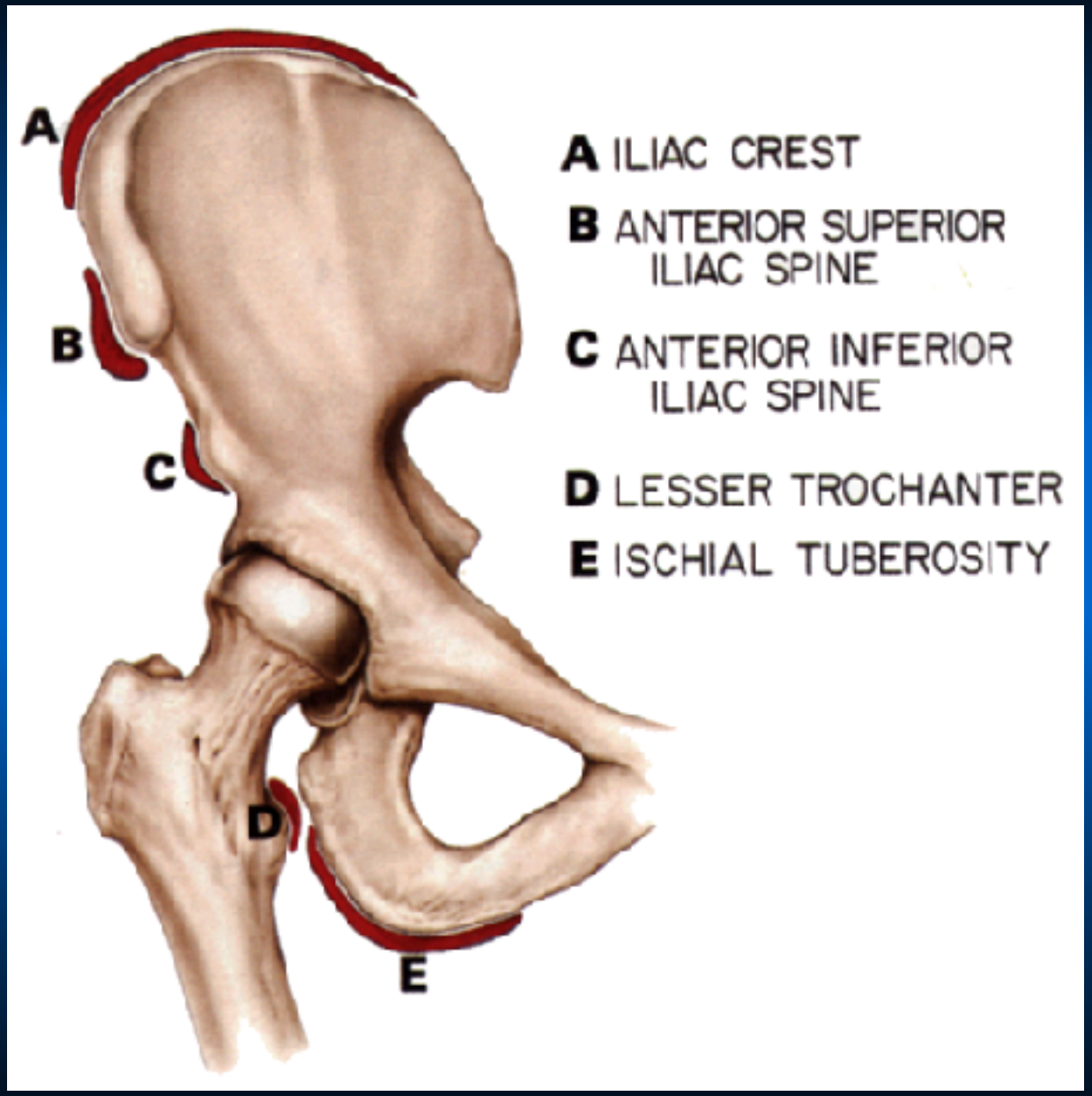
Moves Posterior First
Check Lateral View





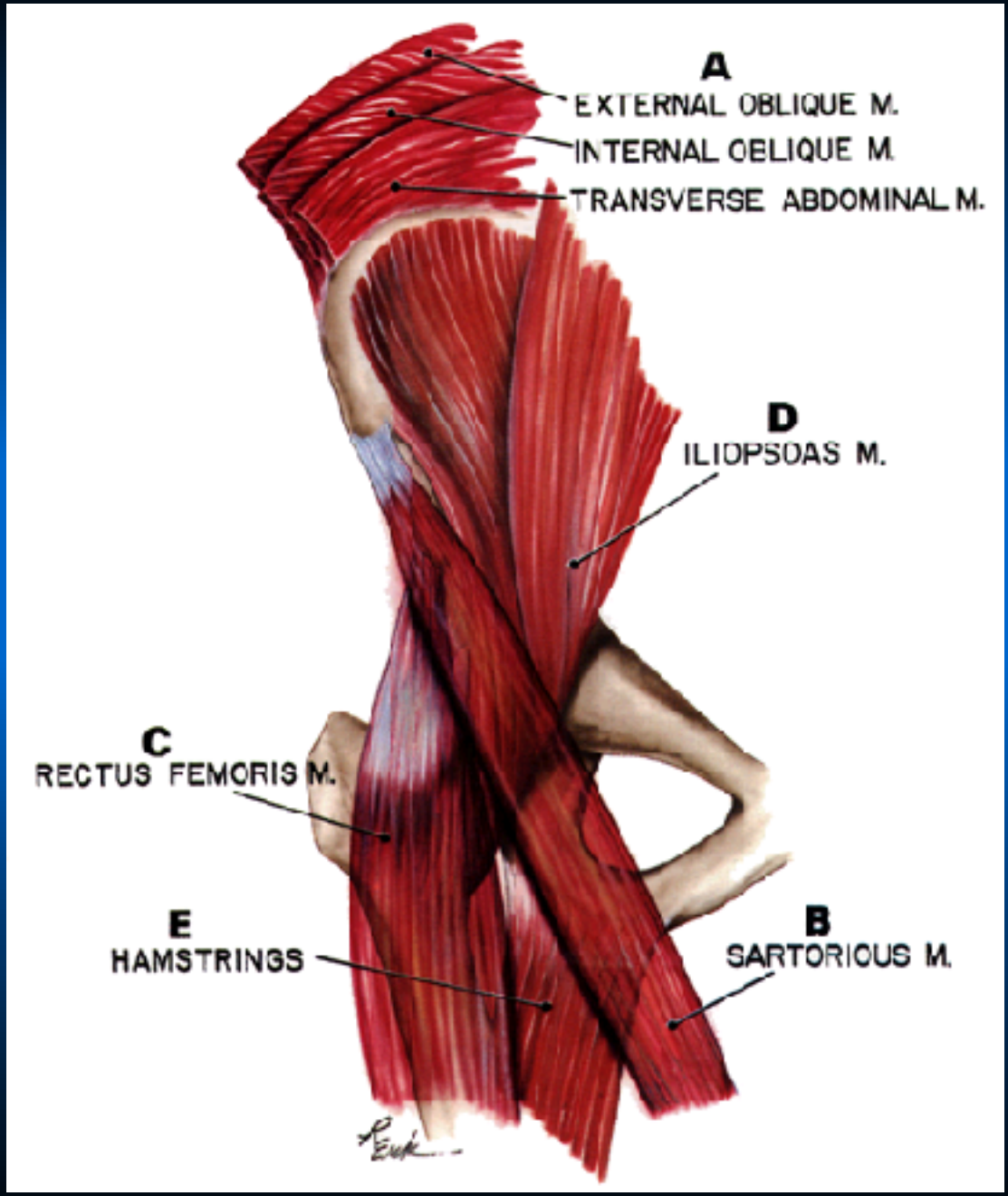
Appearance and Closure of Secondary Ossification Centers - LOWER EXTREMITY





Keats TE, Radiology of Musculoskeletal Stress Injury (Chicago: Year Book Medical Publishers, 1990),

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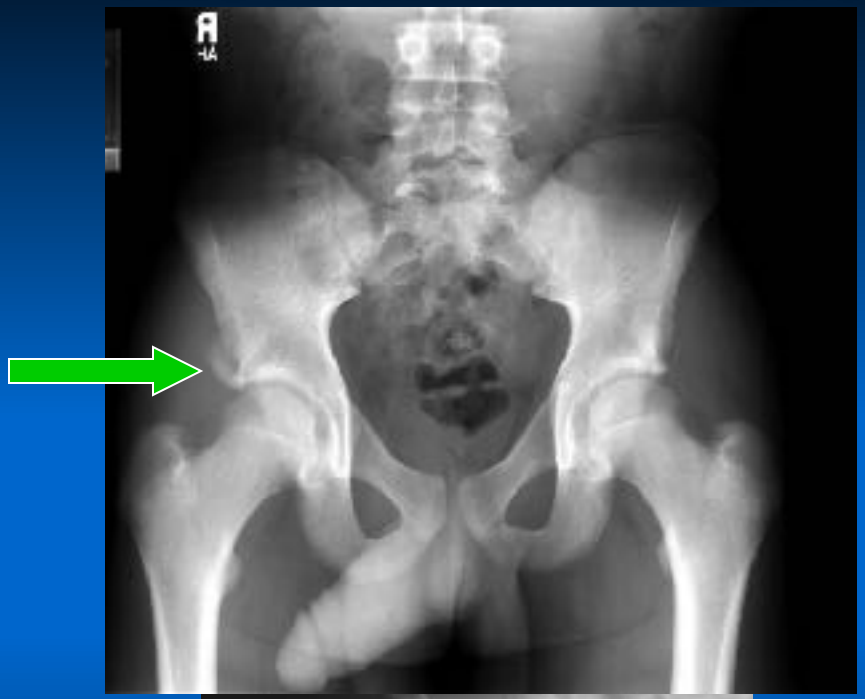
15 YO ASIS Avulsion Fracture - Sartorius





2 months

AIIS Avulsion Fracture – Rectus Femoris









13 YO Baseball player

- Stretching in gym
- Felt right groin pain after running to first

Initial Xrays

Right



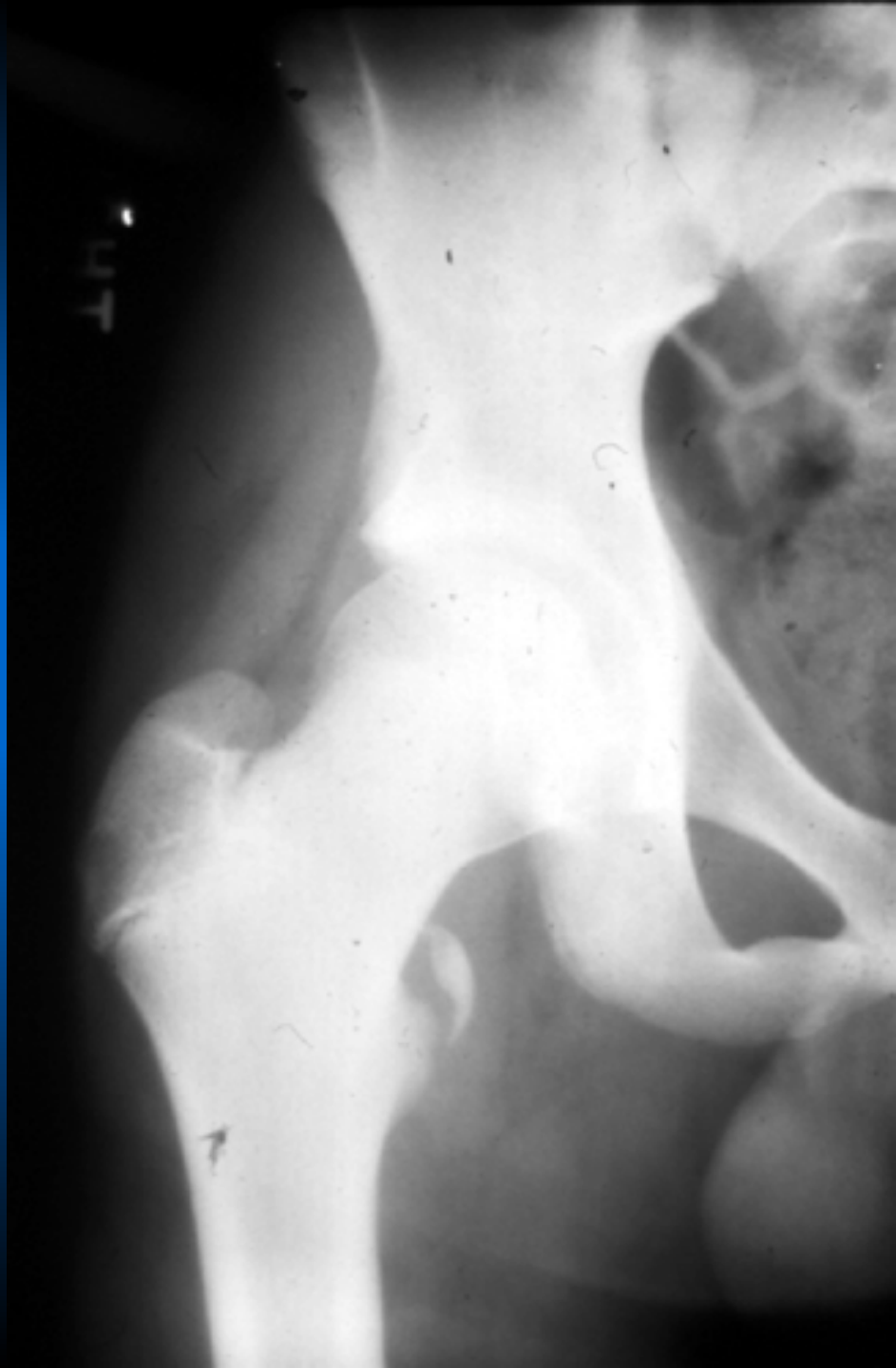
Left



Ischial Tuberosity Apophyseal Avulsion - Hamstring

14 YO Soccer Athlete

Lesser Trochanter Avulsion Fracture Iliopsoas



Snapping Hip Syndrome

- External:
  - Iliotibial band on greater trochanter
  - Most common
- Internal – coxa soltans
  - Iliopsoas tendon on anterior capsule
  - Ballet dancer

Remember rheumatologic and infectious diseases as a cause of hip pain

- Juvenile Rheumatoid Arthritis
- Juvenile Psoriatic Arthritis
- Septic Arthritis
  - Gonorrhea
  - MRSA
  - Staphylococcus Aureus
  - Streptococcus

Thanks to Dr. Karl Fields for JPA cases.

Juvenile Psoriatic Arthritis
A Presenting as Hip Pain

- 14-year-old girl with JPA
- Complaining of long-standing left hip pain which has worsened over previous three months
- Strong family history of psoriasis

Lee EY, Sundel RP, Kim S, Zurakowski D, Kleinman PK. MRI findings of juvenile psoriatic arthritis, *Skeletal Radiology*, 2008; 37 (11): 987-996

Coronal STIR

Post Gadolinium T1 Fat Sat





Figure 6a, taken from: Lee EY, Sundel RP, Kim S, Zurakowski D, Kleinman PK. MRI findings of juvenile psoriatic arthritis, *Skeletal Radiology*, 2008; 37 (11): 987-996

The End
Thank You!

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