

**DDH**

**Mr Henman**

**All you wanted to know but were  
too embarrassed to ask.....**

# Program

- Introduction
- Ultrasound
- Non-operative treatment
- Practical session
- Surgical treatment
- Quiz
- Case studies

# Definition

- Infant hip
- Joint instability
- Spectrum
- Frank dislocation to asymptomatic acetabular dysplasia
- May progress or resolve in early months

# Risk factors

- Female
- Family
- High Birth Weight
- Breech
- Packing
- etc.....

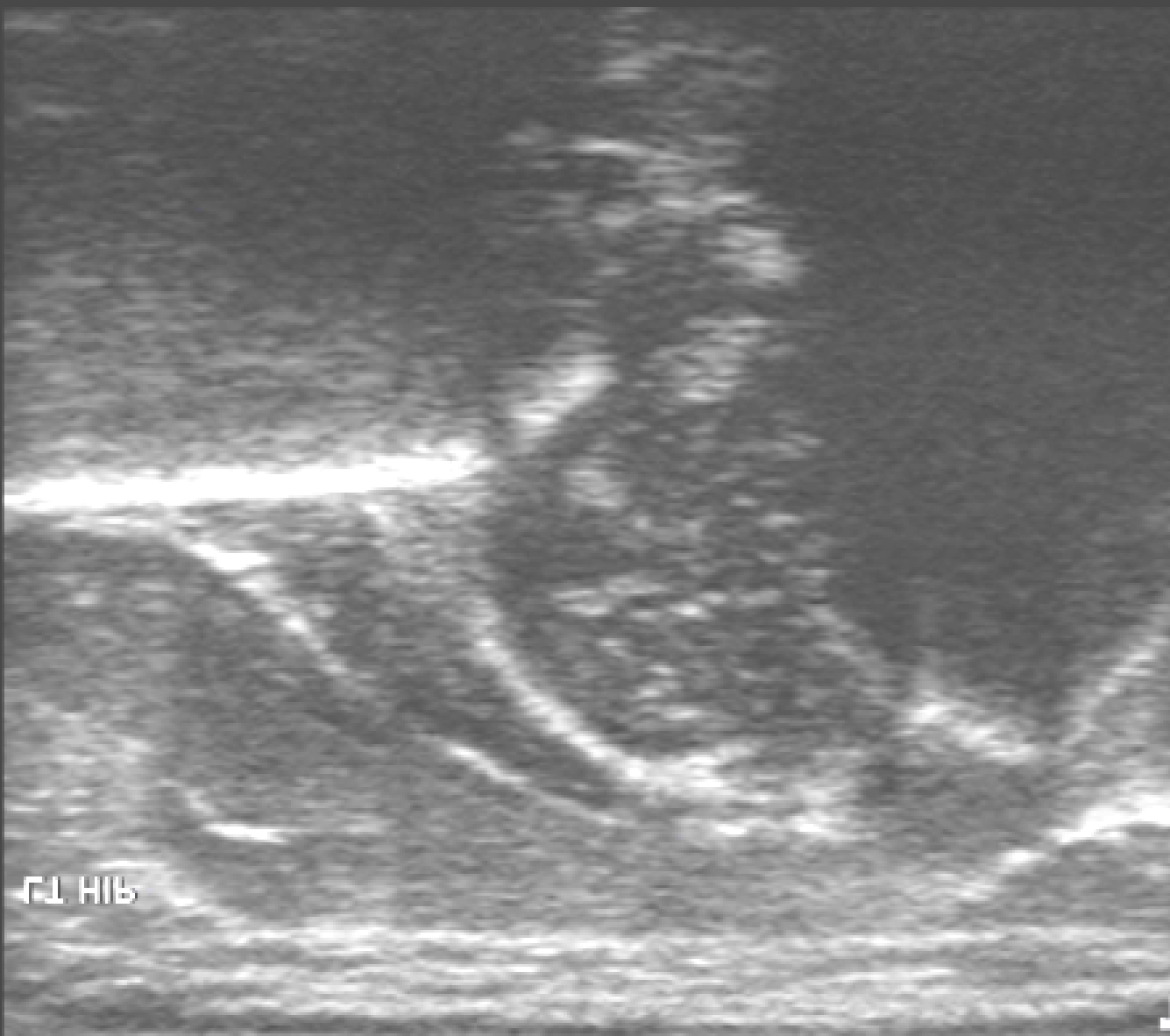
# Diagnosis

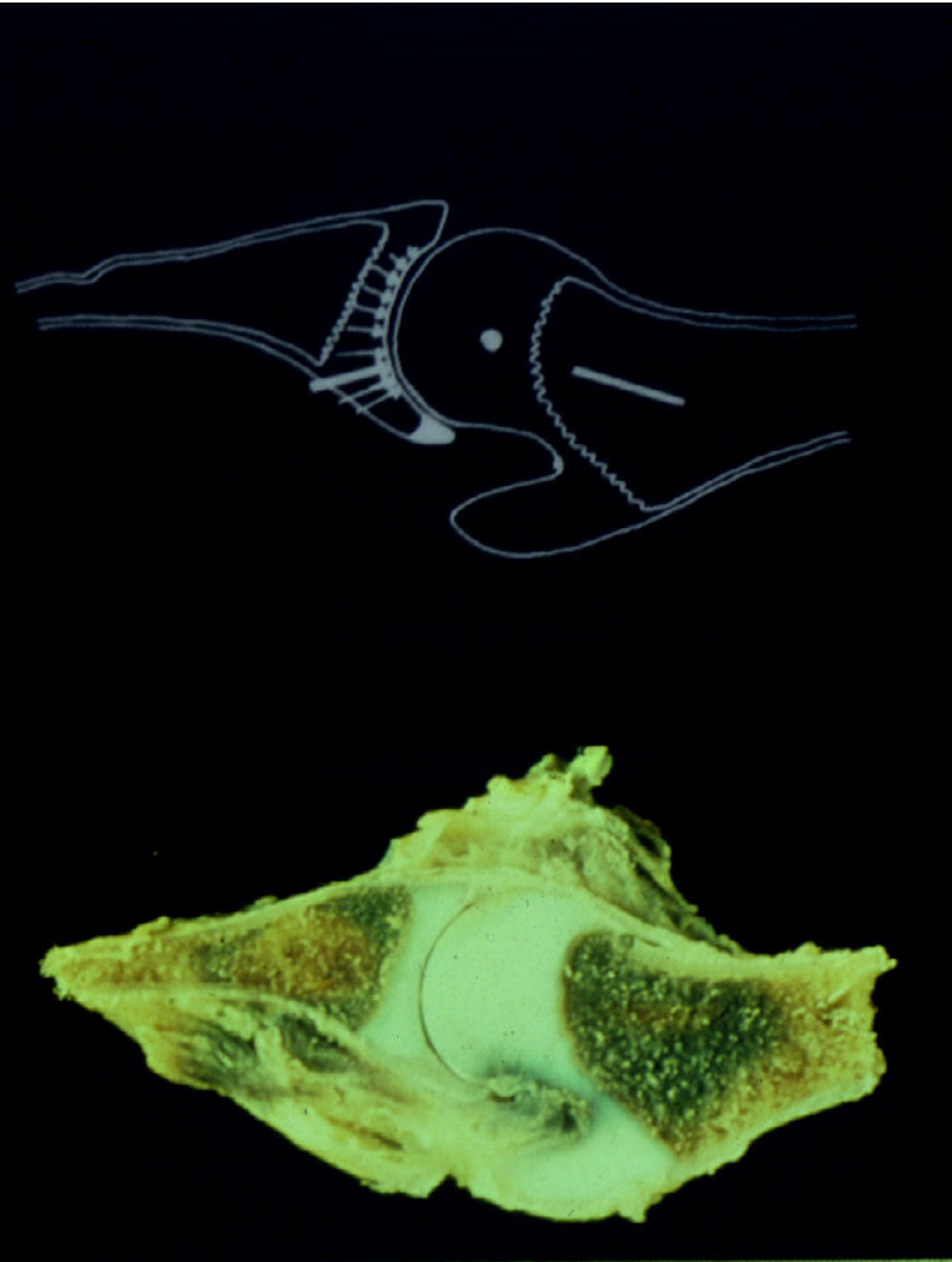
- Examination
- Ultrasound

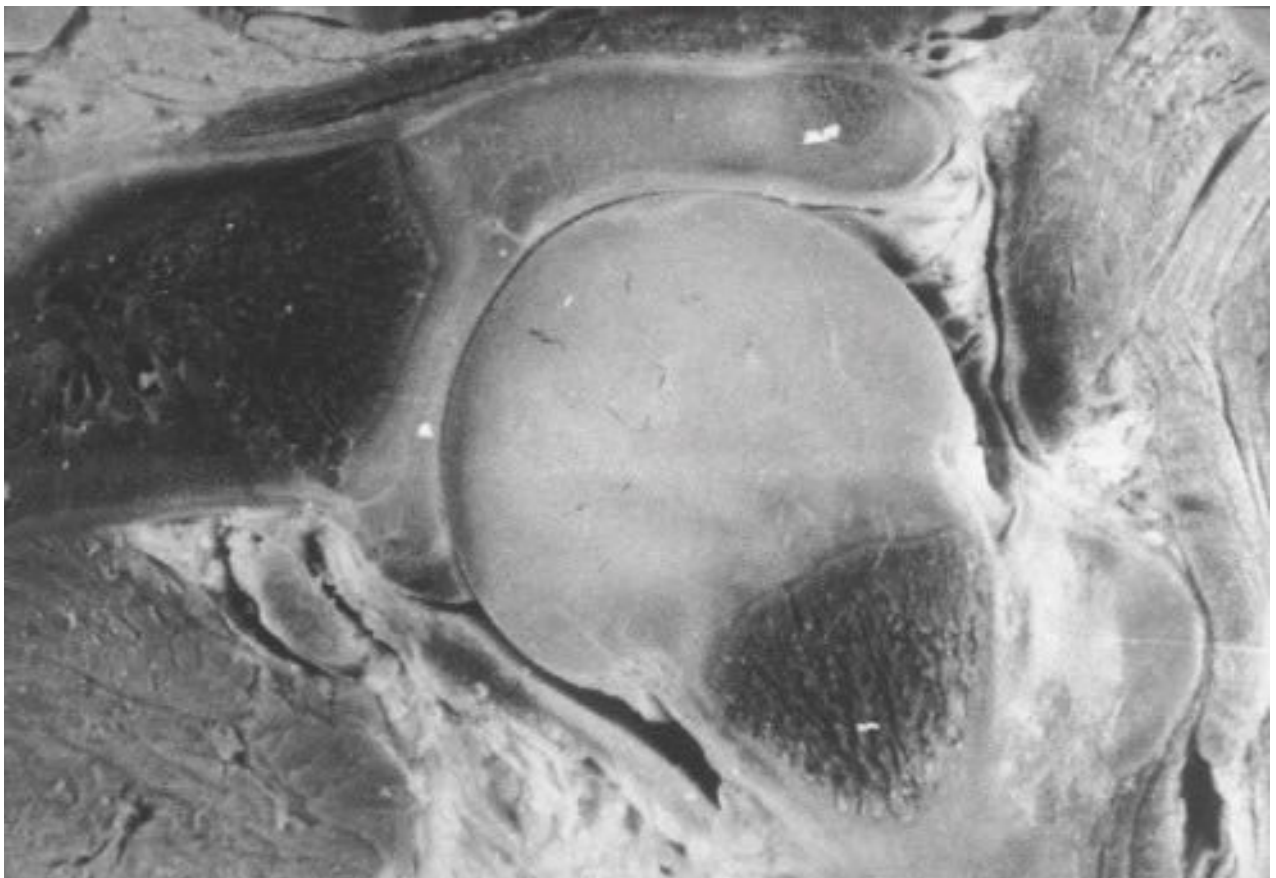
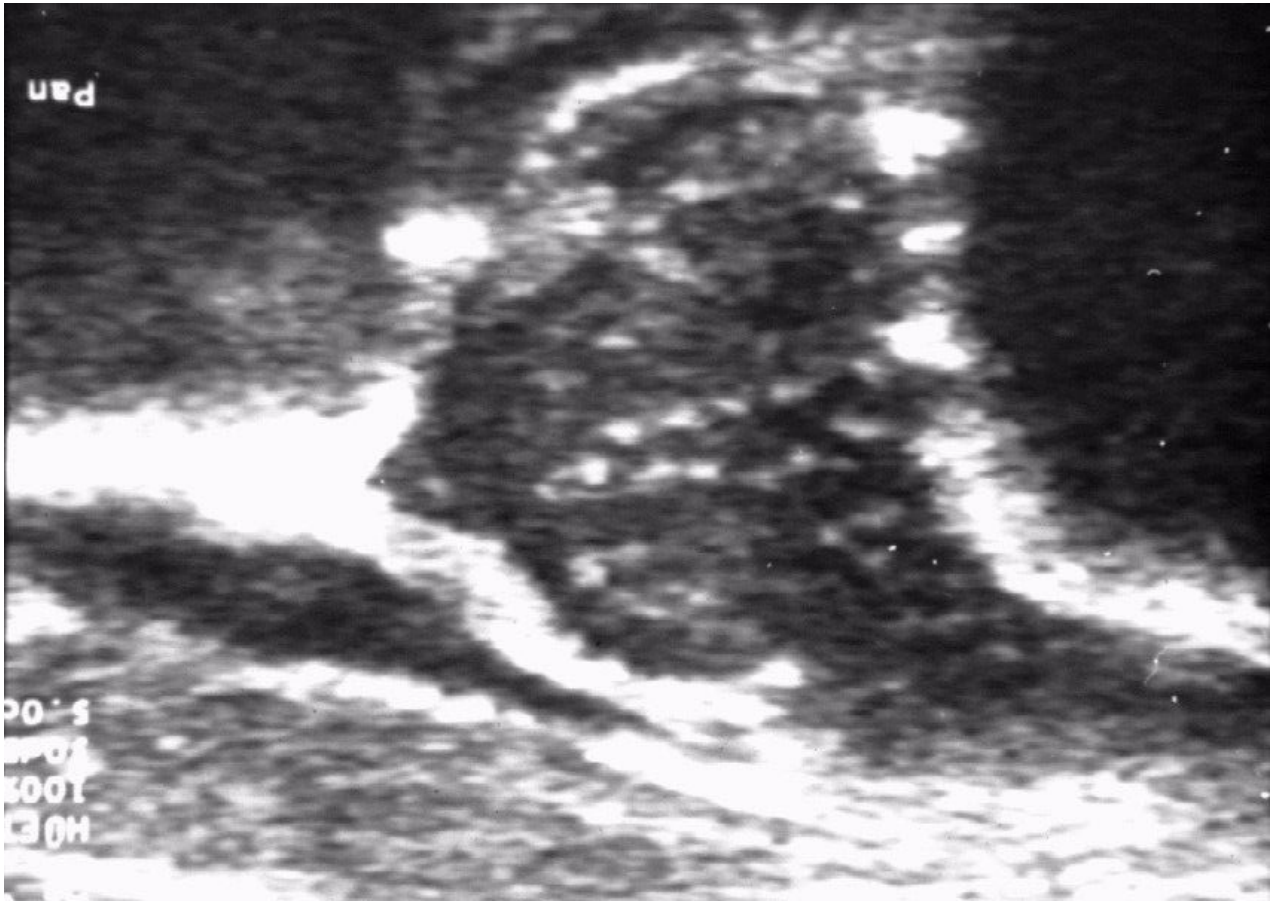
# Examination

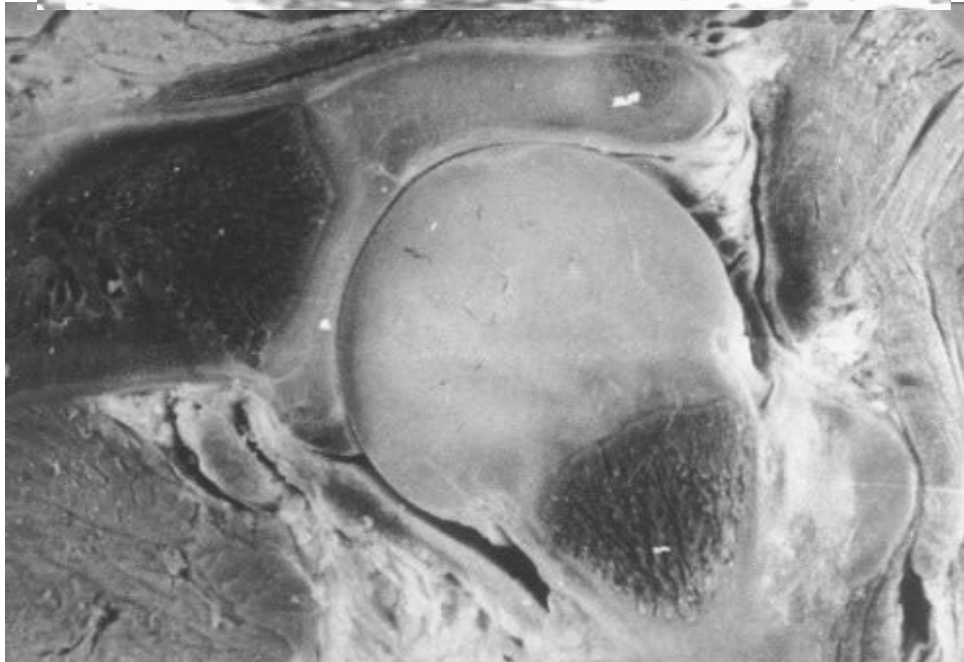
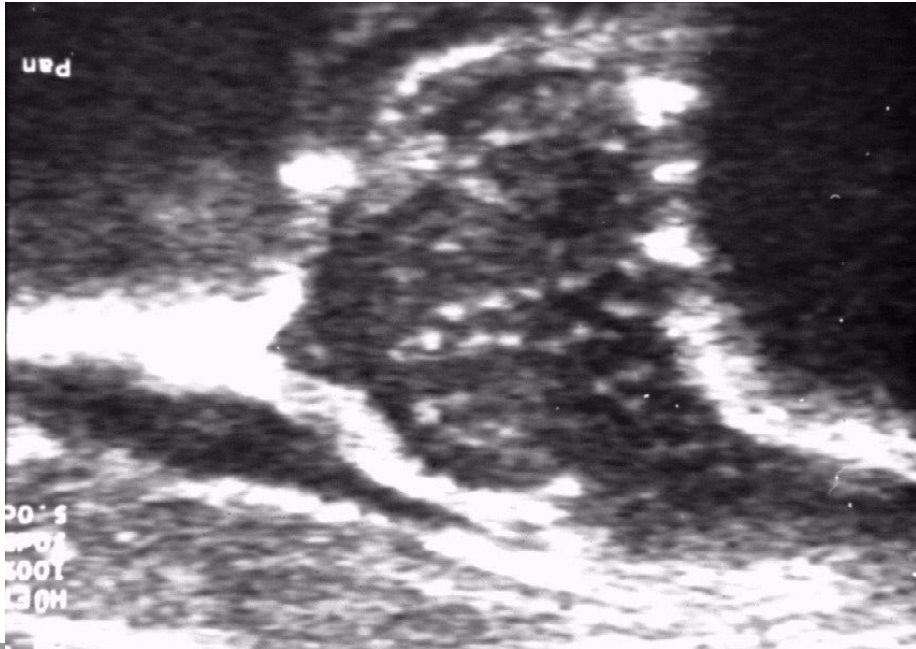
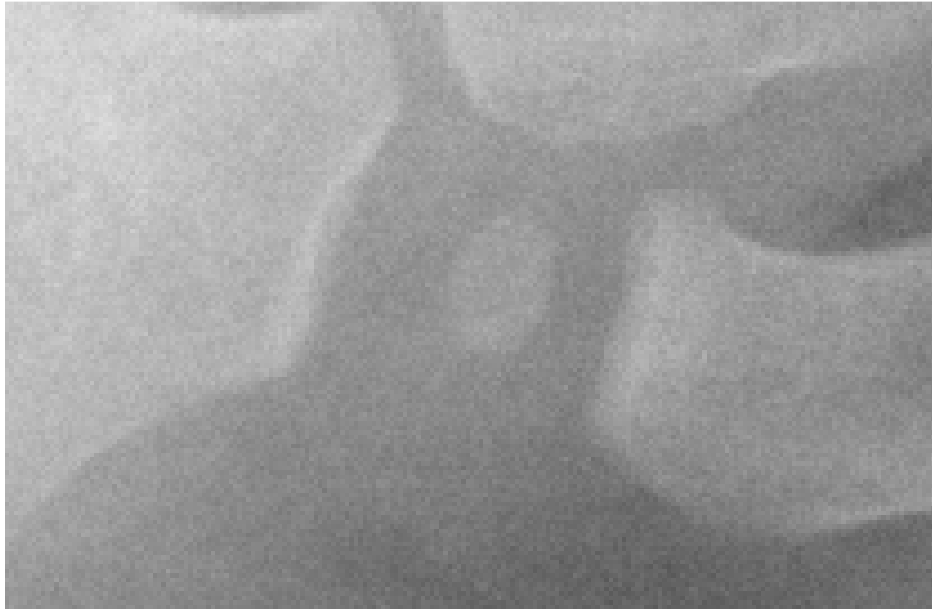
# Ultrasound



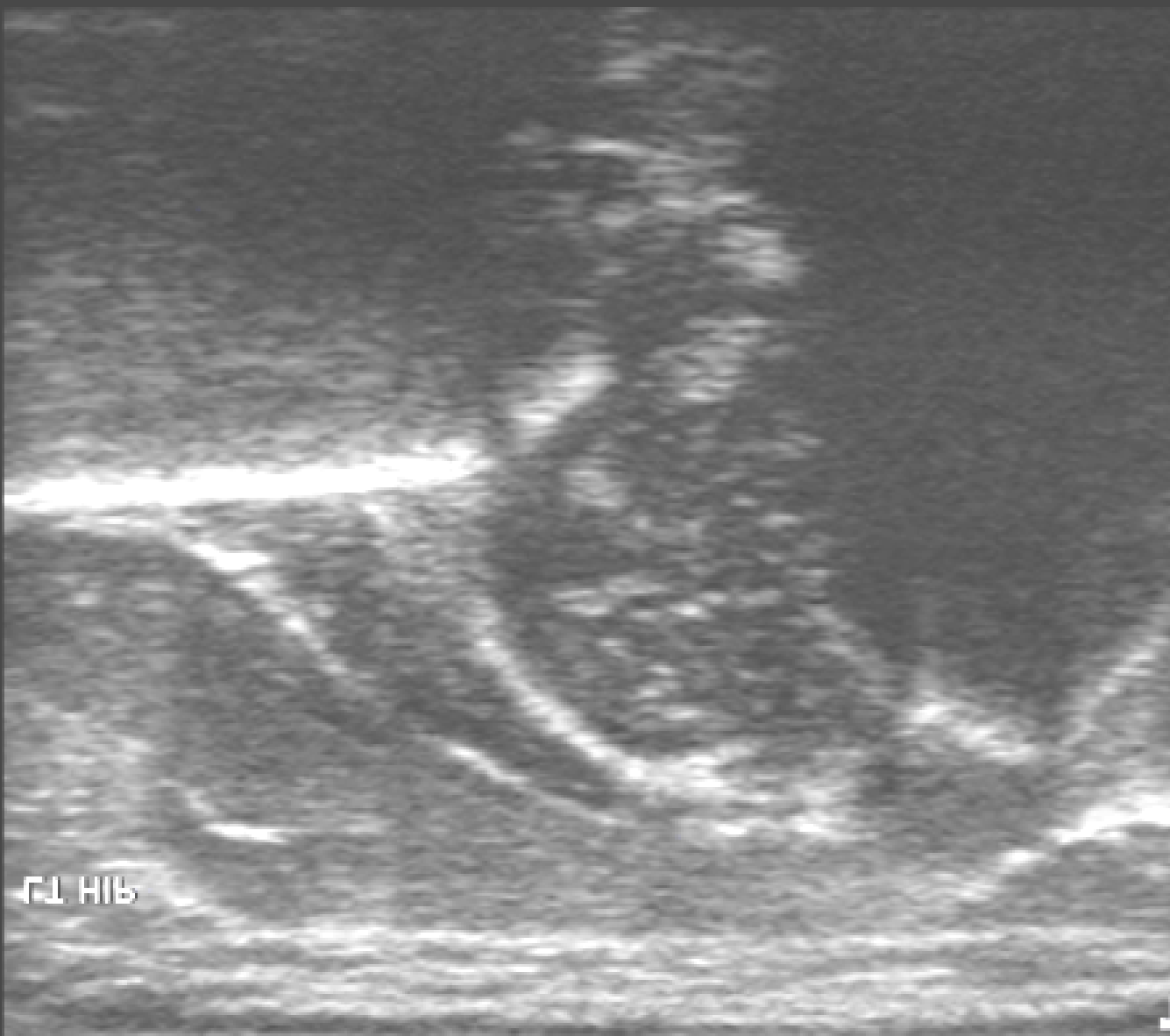




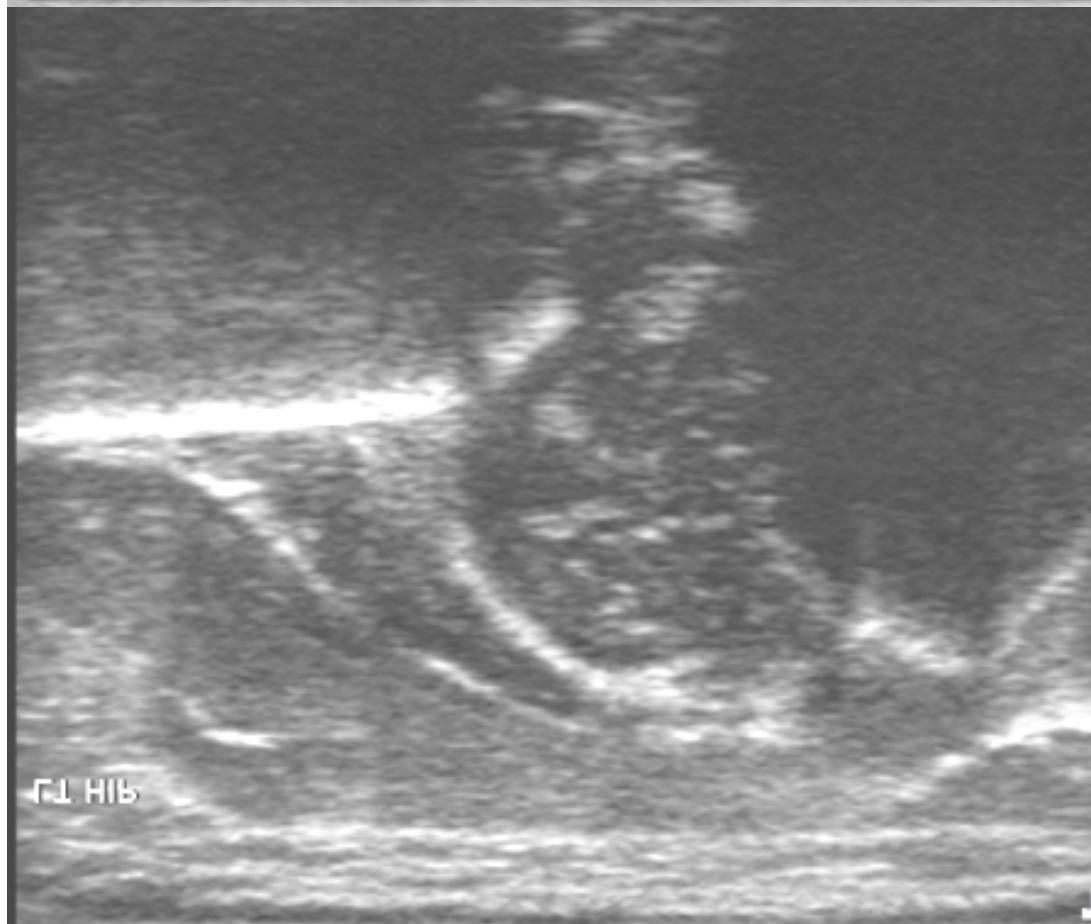
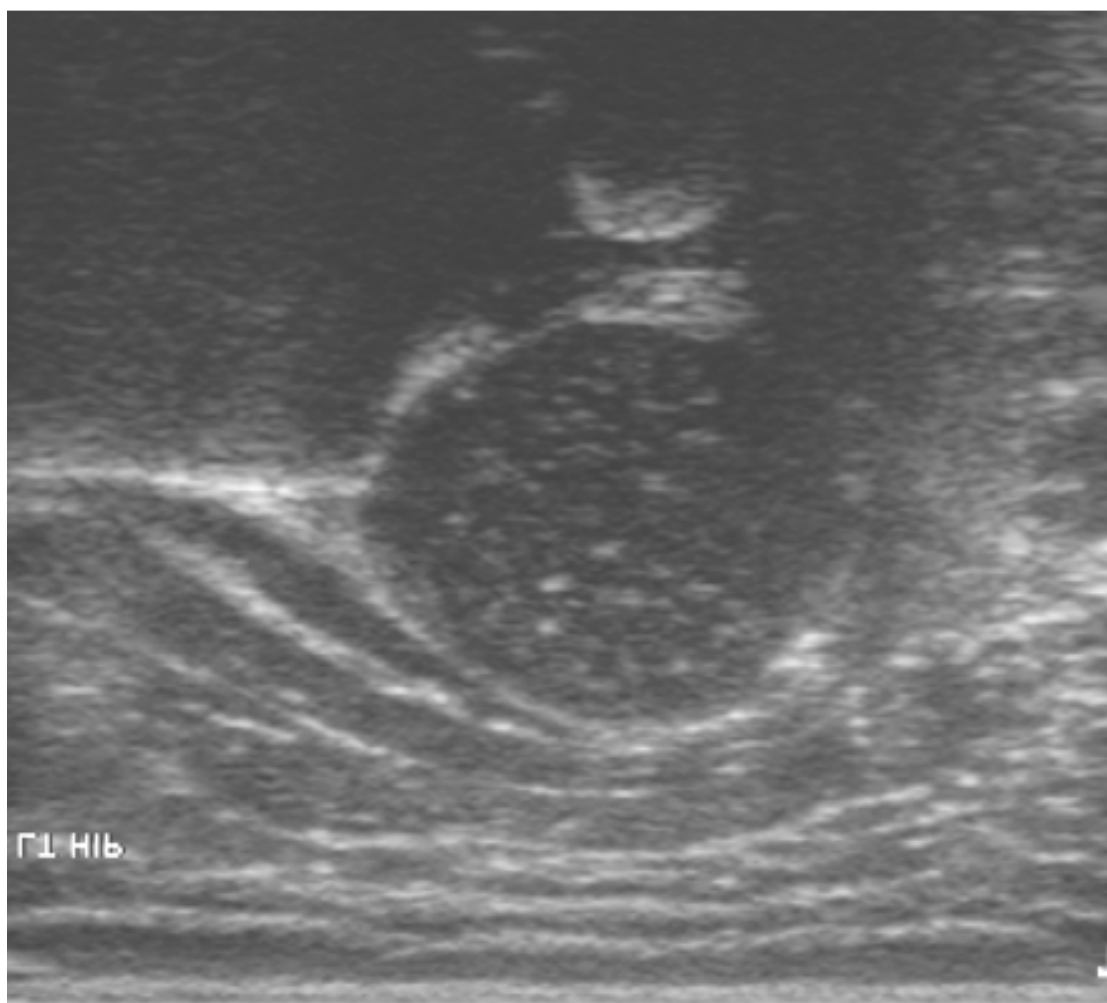






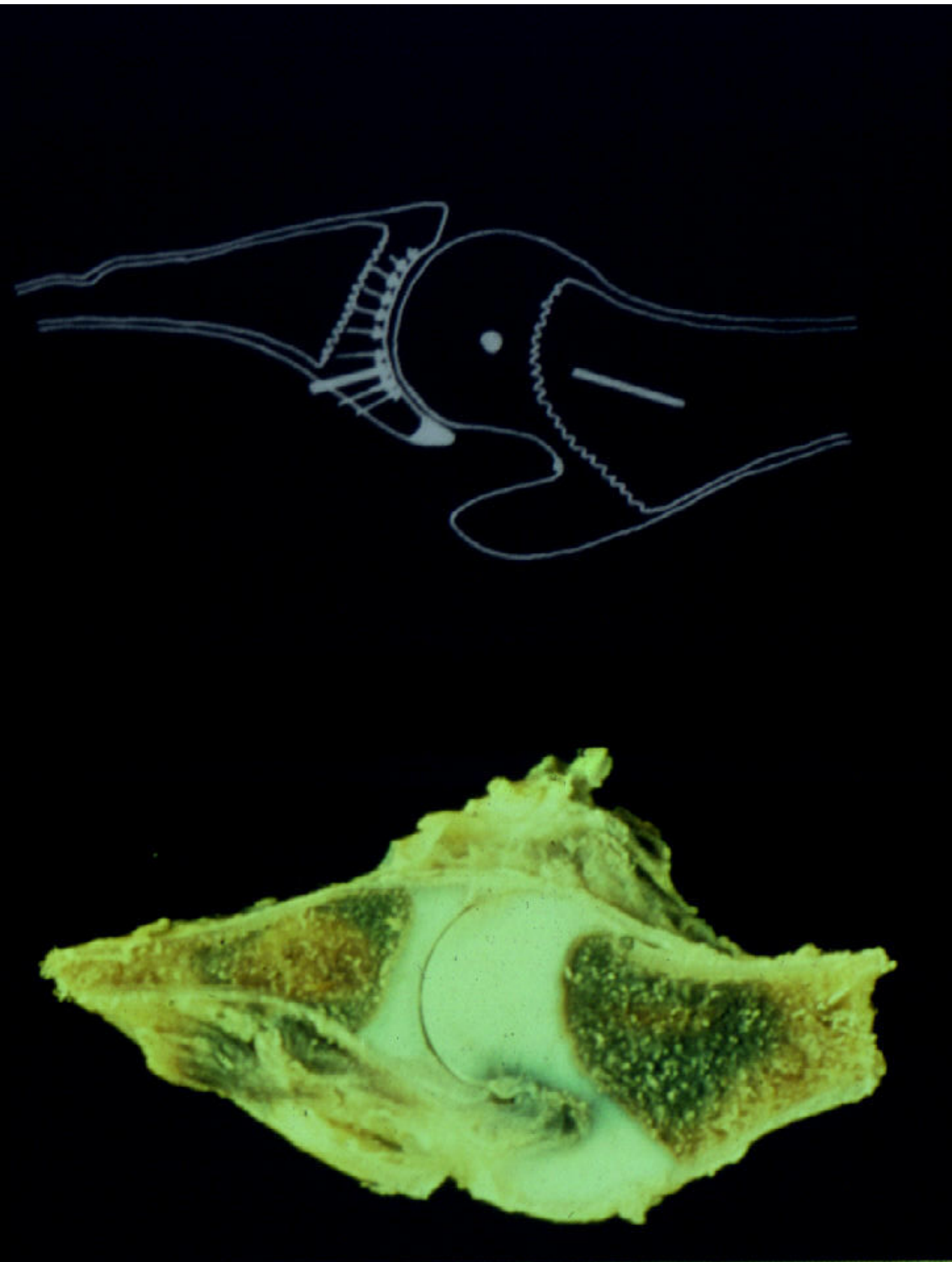


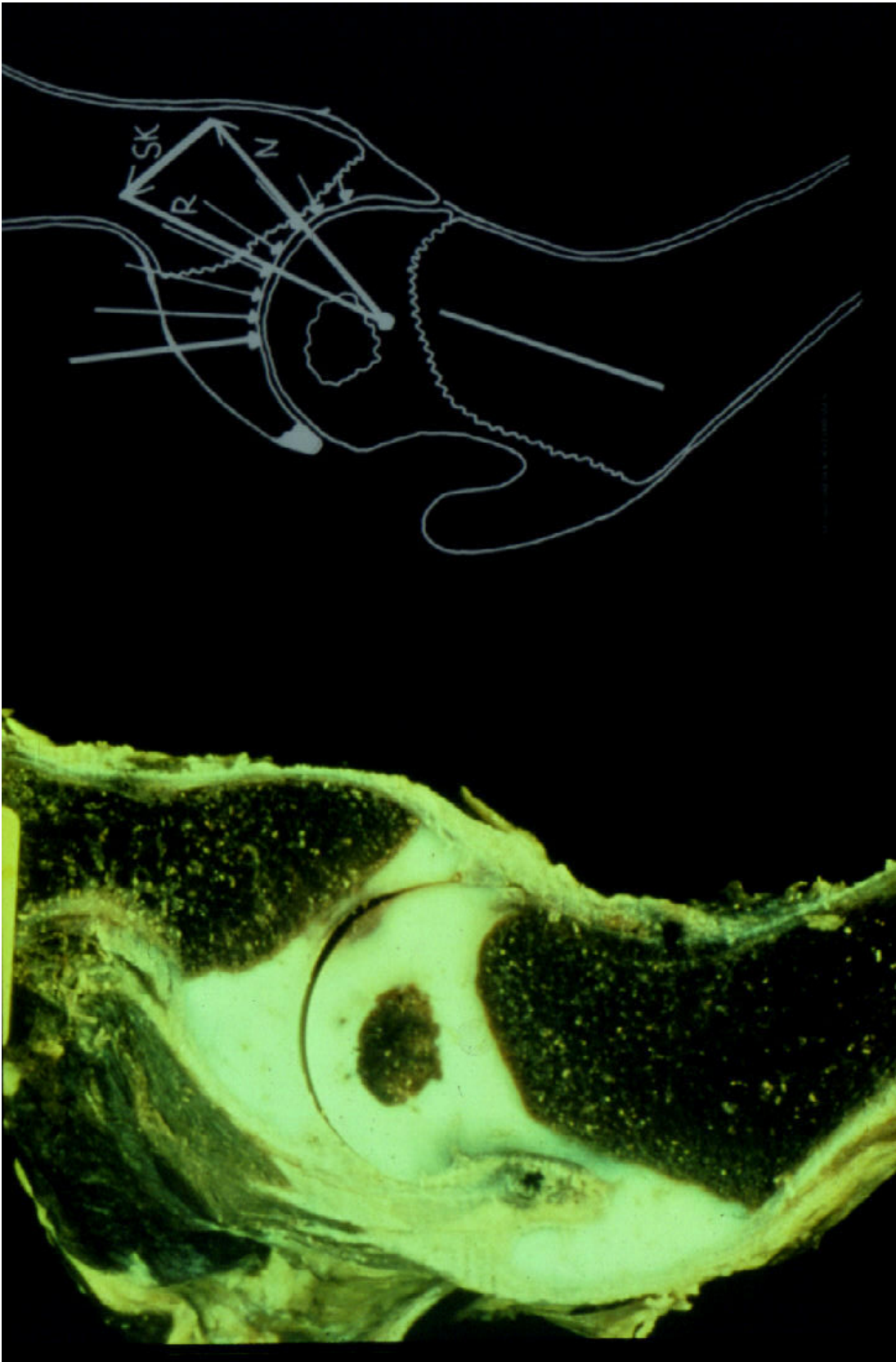
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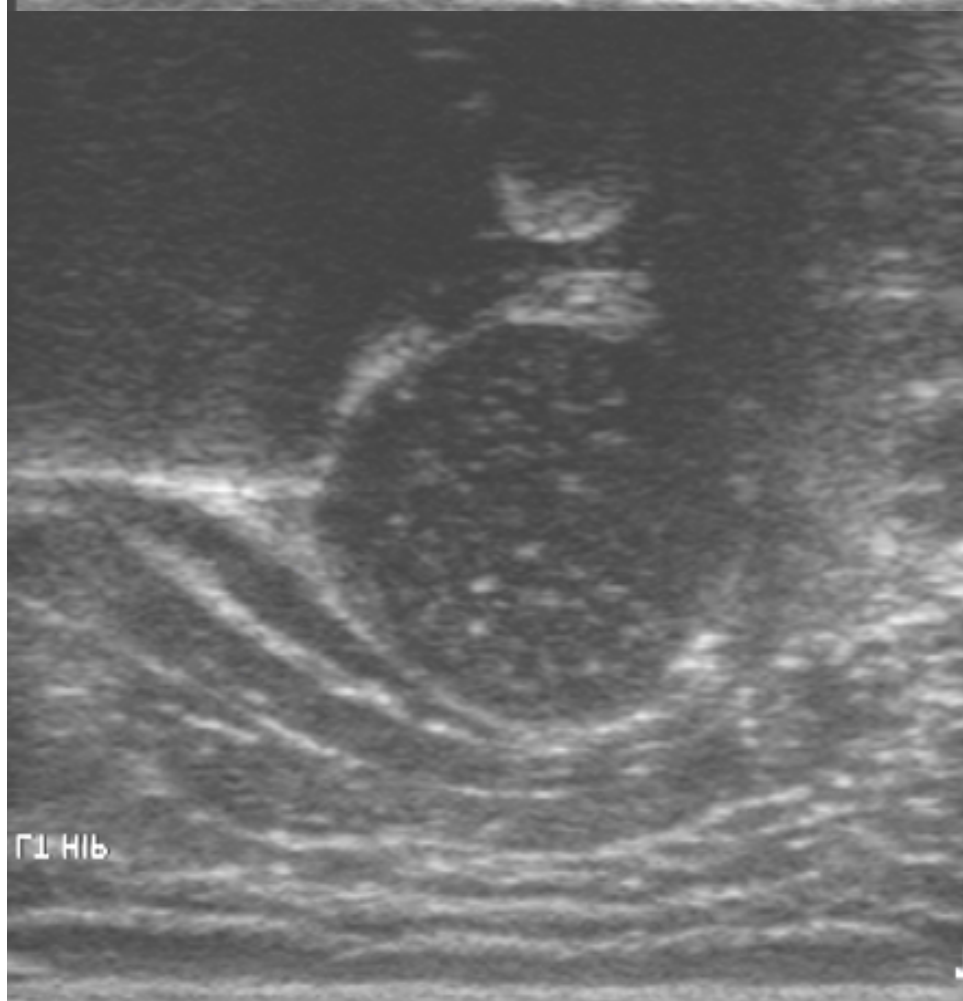
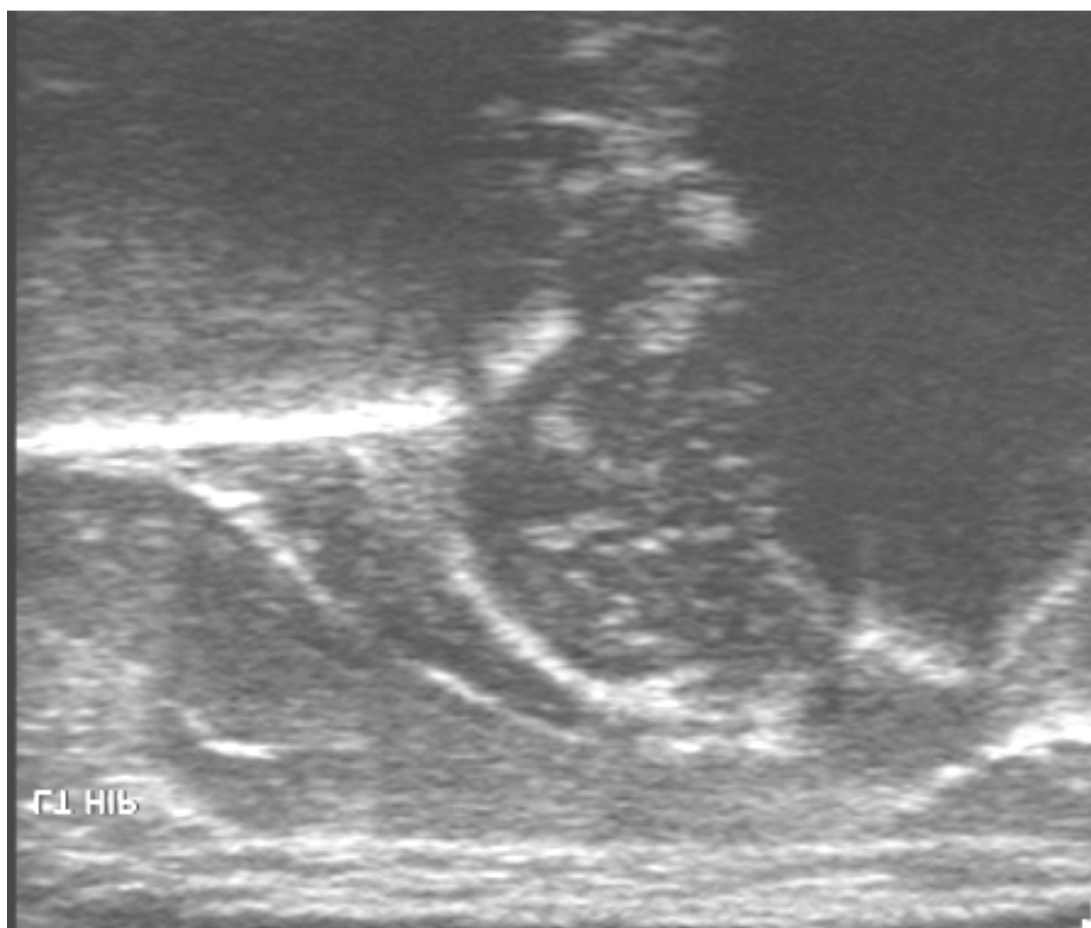


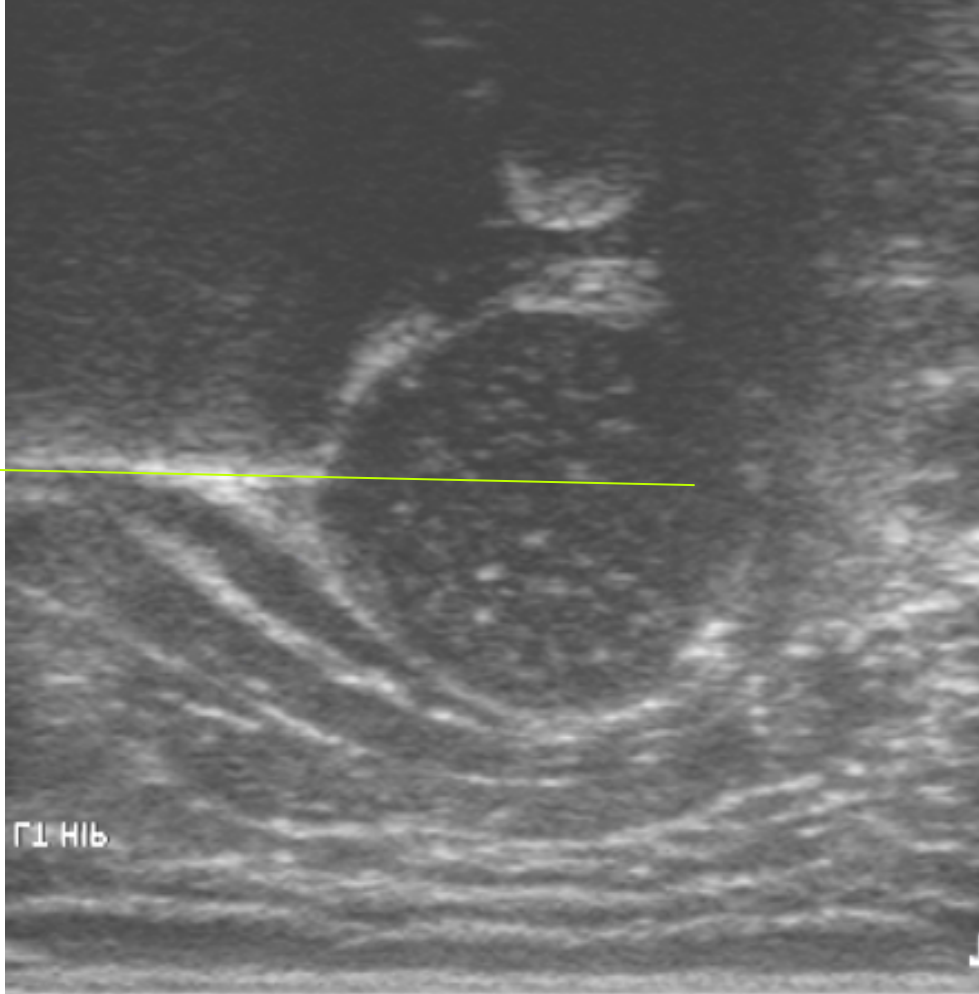
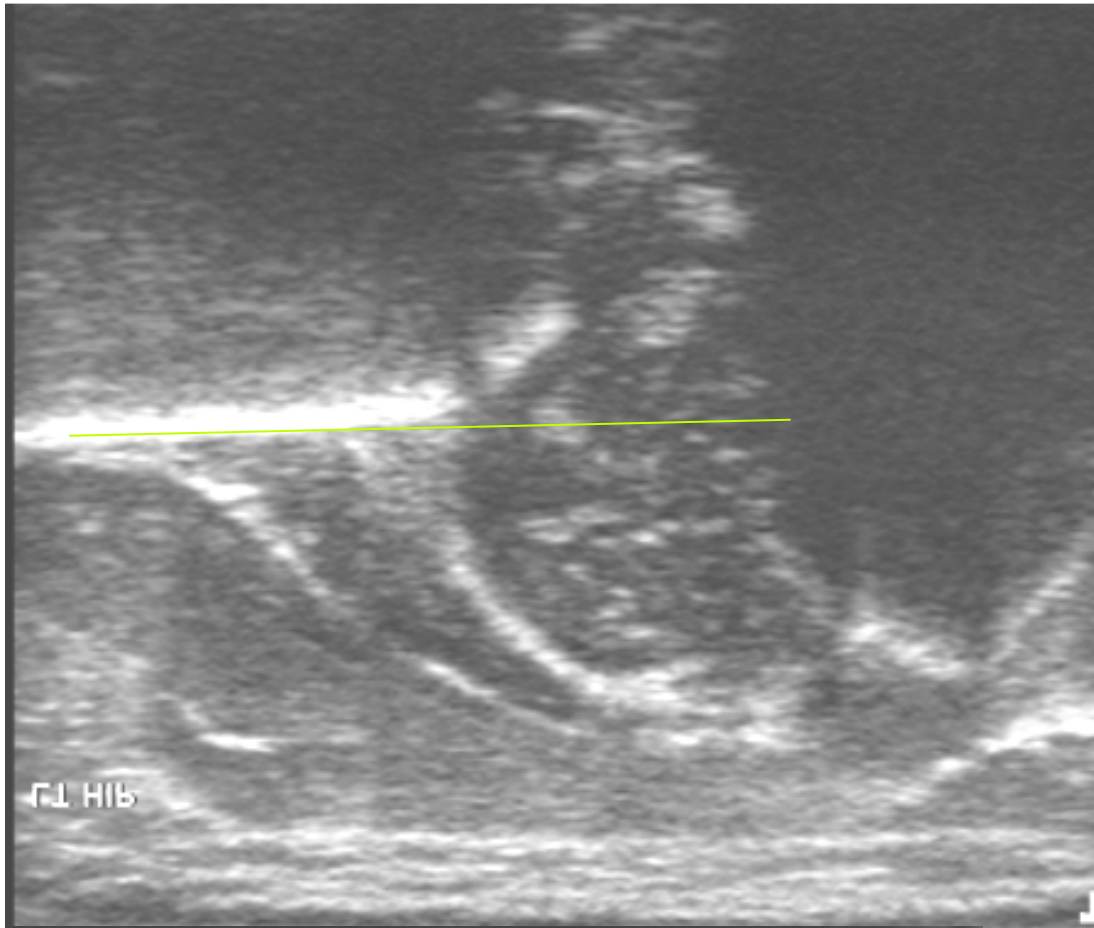


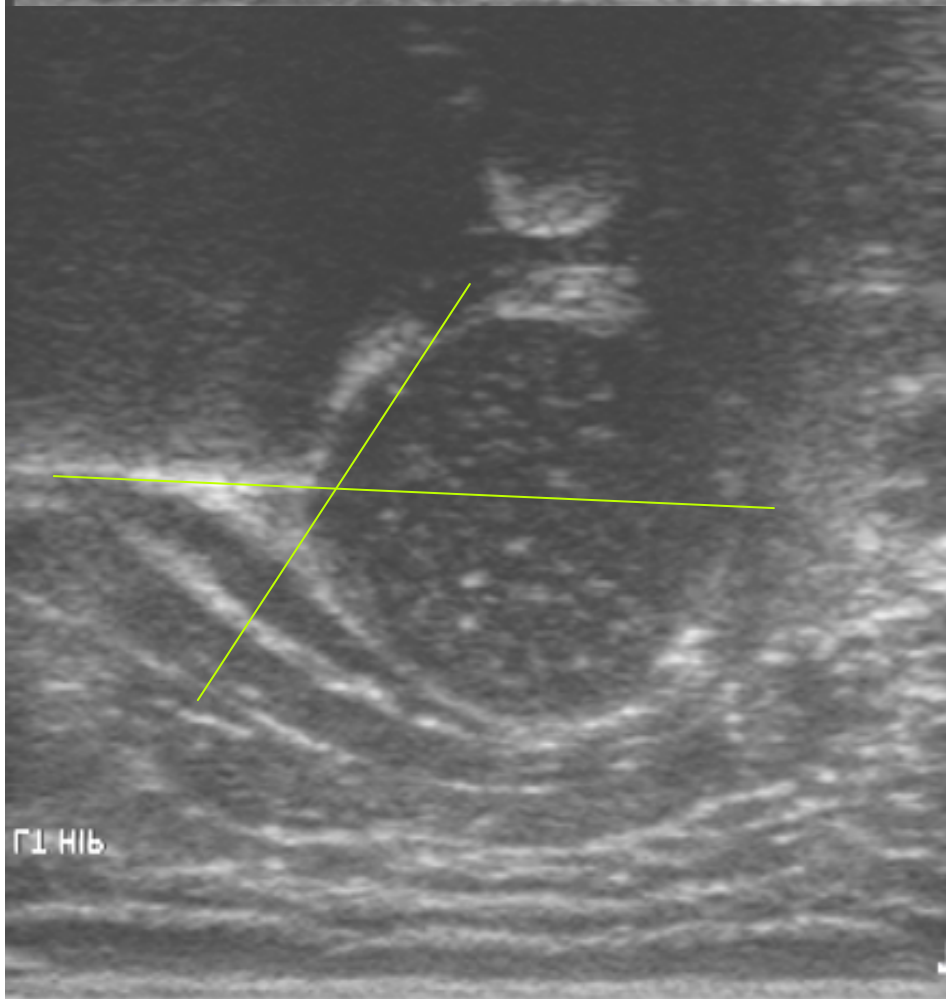
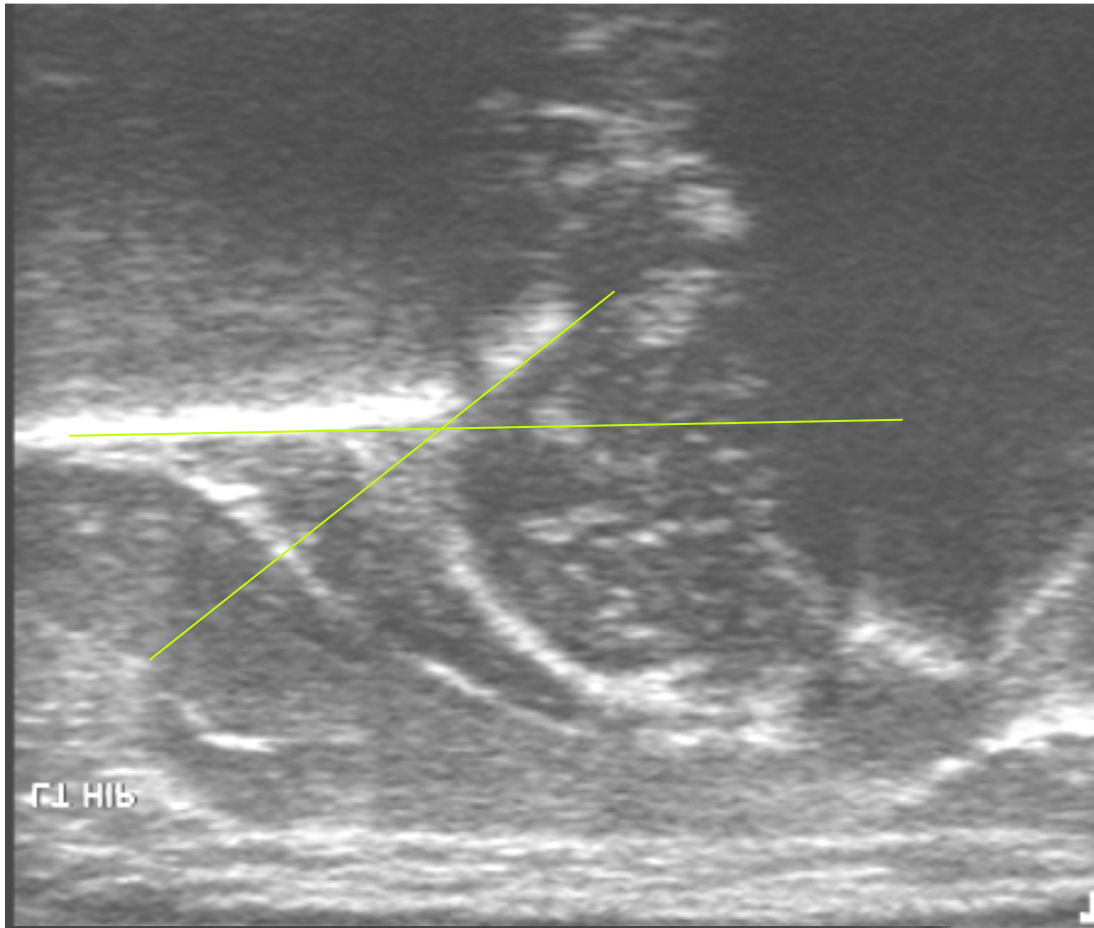






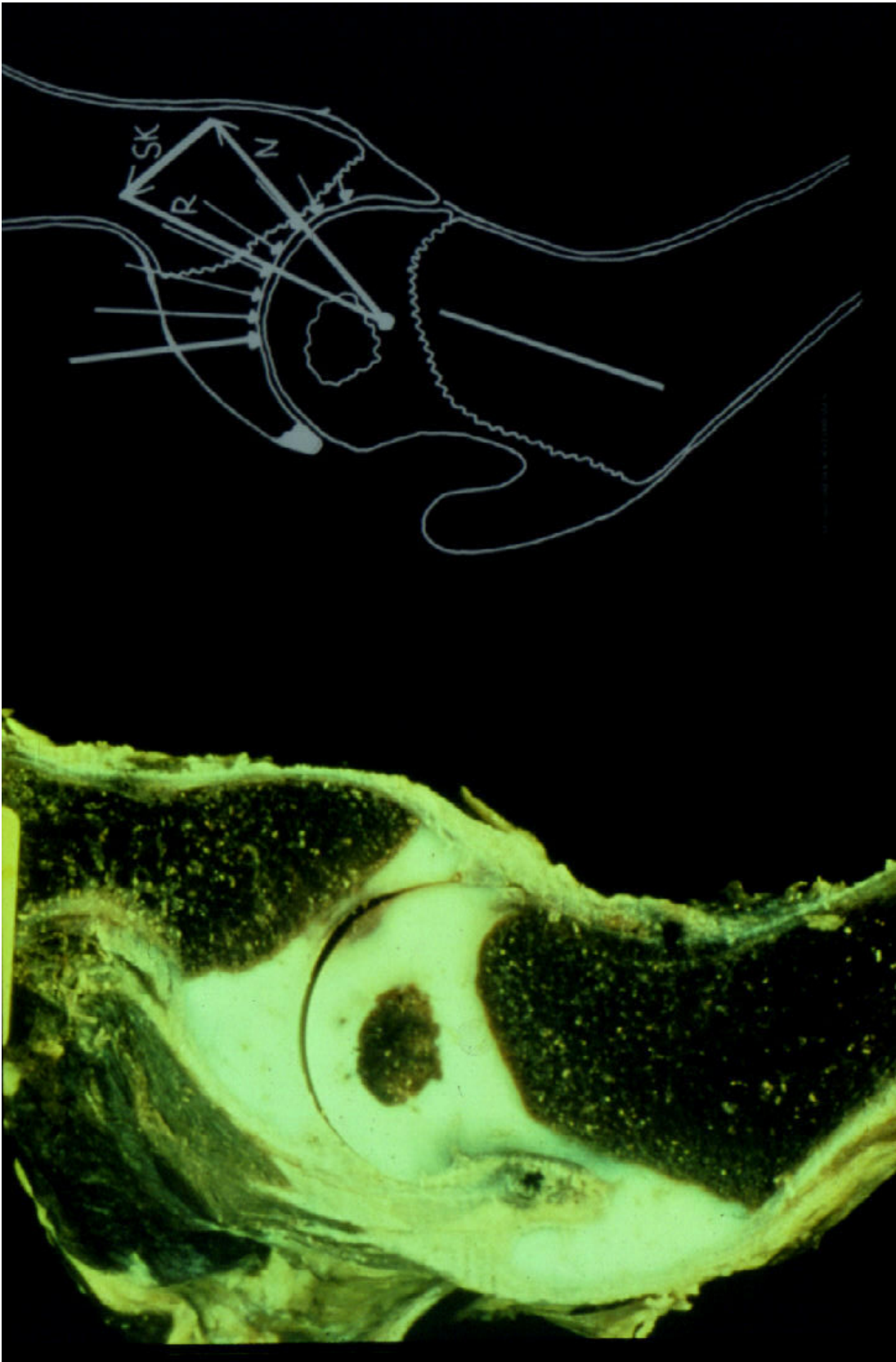


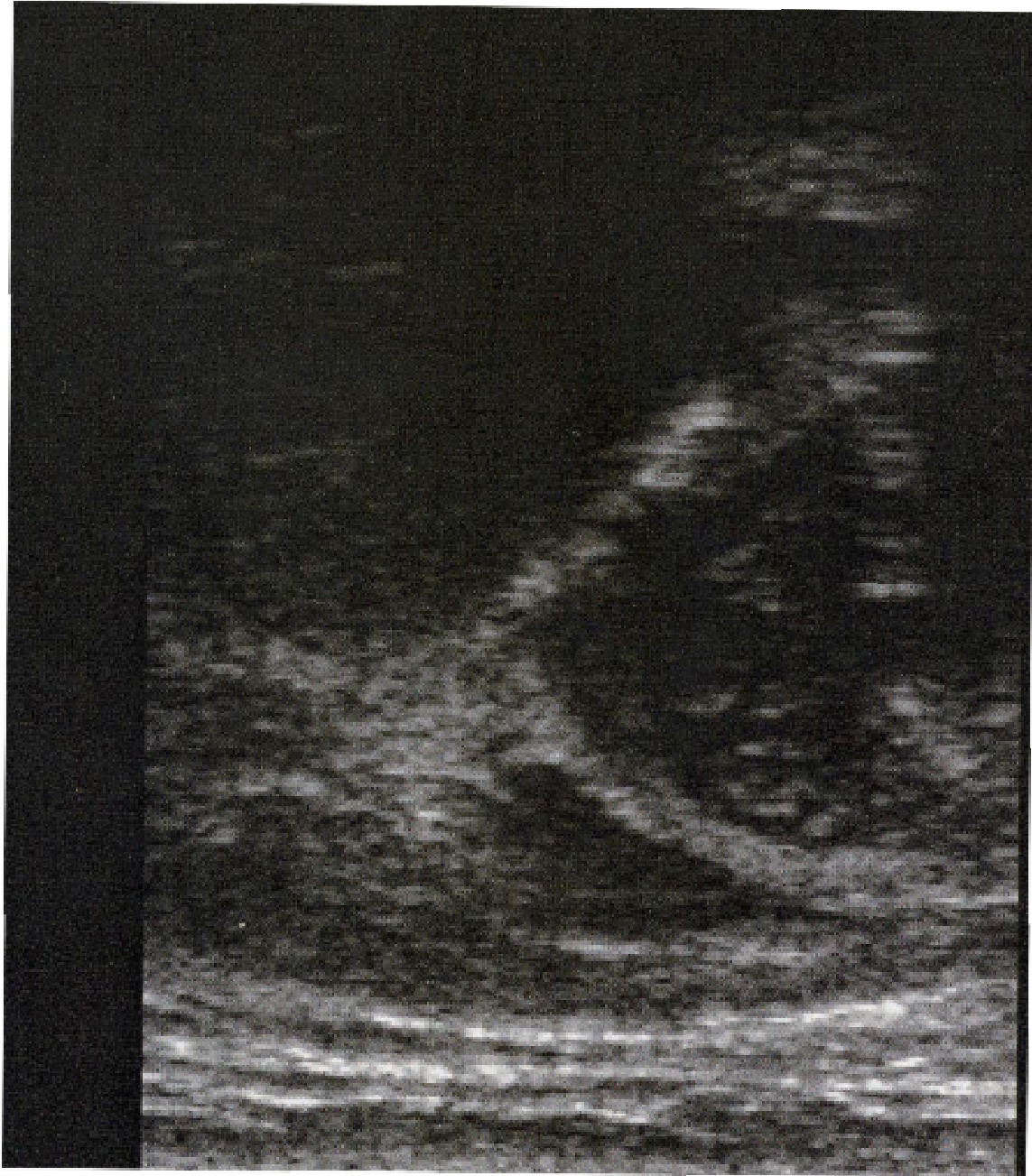




# Classification

- Dynamic (Harccke)
- Static (Graf)

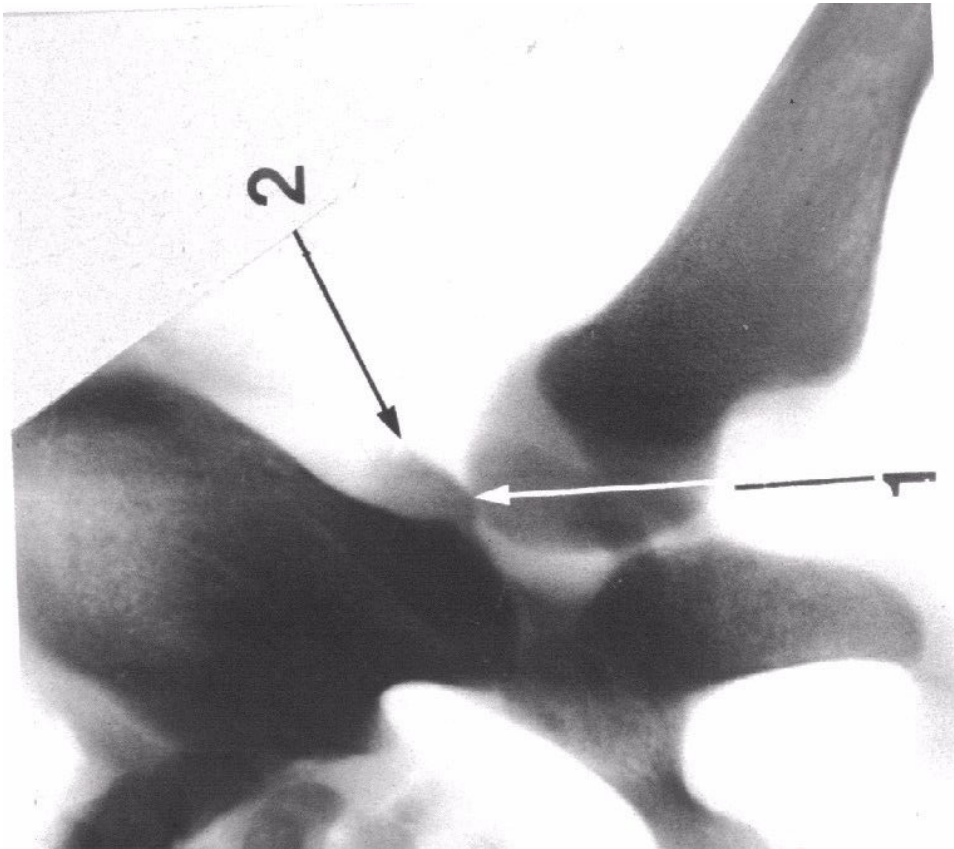






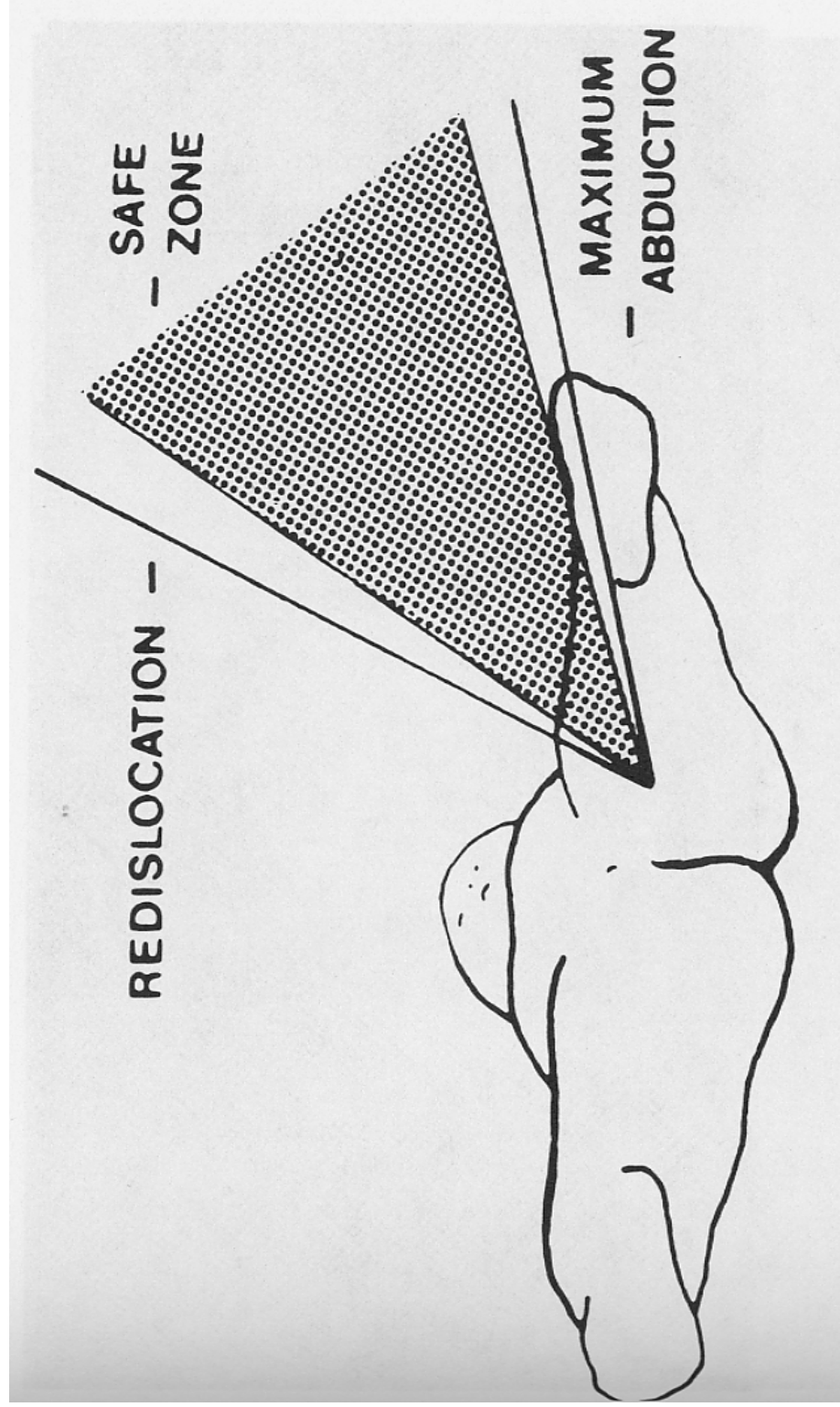
# Treatment







# “Safe Zone”



# Surgical Treatment in CDH

*Don't Panic*

# GOAL

- Reduction of Femoral Head in Acetabulum
- Concentric
- Stable
- .....without damaging growth potential

# Principles of Surgical Treatment

- Assess the obstacles to Reduction
- Address the obstacles to Reduction
- Assess the obstacles to Stability
- Address the obstacles to Stability

...without compromising future growth

# Know your Enemy

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# Obstacles to Concentric Reduction

## Extra-articular

- Psoas
- **Constricted Capsule (hour-glass)**
- Adductors
- Hamstrings
- Abductors
- (Short External Rotators)

# Obstacles to Concentric Reduction

## **Intra-articular**

- **Ligamentum Teres**
- **Labrum**
- **Limbus**
- **Transverse Acetabular Ligament**
- **Pulvinar**

# Obstacles to Stability

## **Acetabulum**

- Shallow
- Anteverted
- Extended

## **Femur**

- Anteverted
- Valgus

# Assessment

- X-Ray
- Examination under Anaesthetic
- Arthrogram

# Surgical options

- Closed reduction
- Closed reduction plus tenotomies
- Open reduction
  - Medial
  - Anterior
- Open reduction plus osteotomies



# Surgical approach

## Medial

- Pro
  - Muscle sparing
  - Bloodless
  - Quick
- Con
  - Cannot address false acetabulum
  - Capsulorrhaphy
  - Acetabular osteotomy
  - ?? AVN

# Surgical approach anterior

- Pro
  - Access all areas
  - Capsulorrhaphy
  - Take down false acetabulum
  - Osteotomy through same approach
- Con
  - Big Dissection
  - Blood loss

