

# Back to Basics 2

## - The Pelvis

# Aim of the session

- Revisit anatomy
- Review technique
- Implications of technique on diagnosis
- Options for improved diagnosis



# AP Radiograph



# Clinical history

- Pain
- Limp
- Fall
- Major trauma
- Corrective surgery

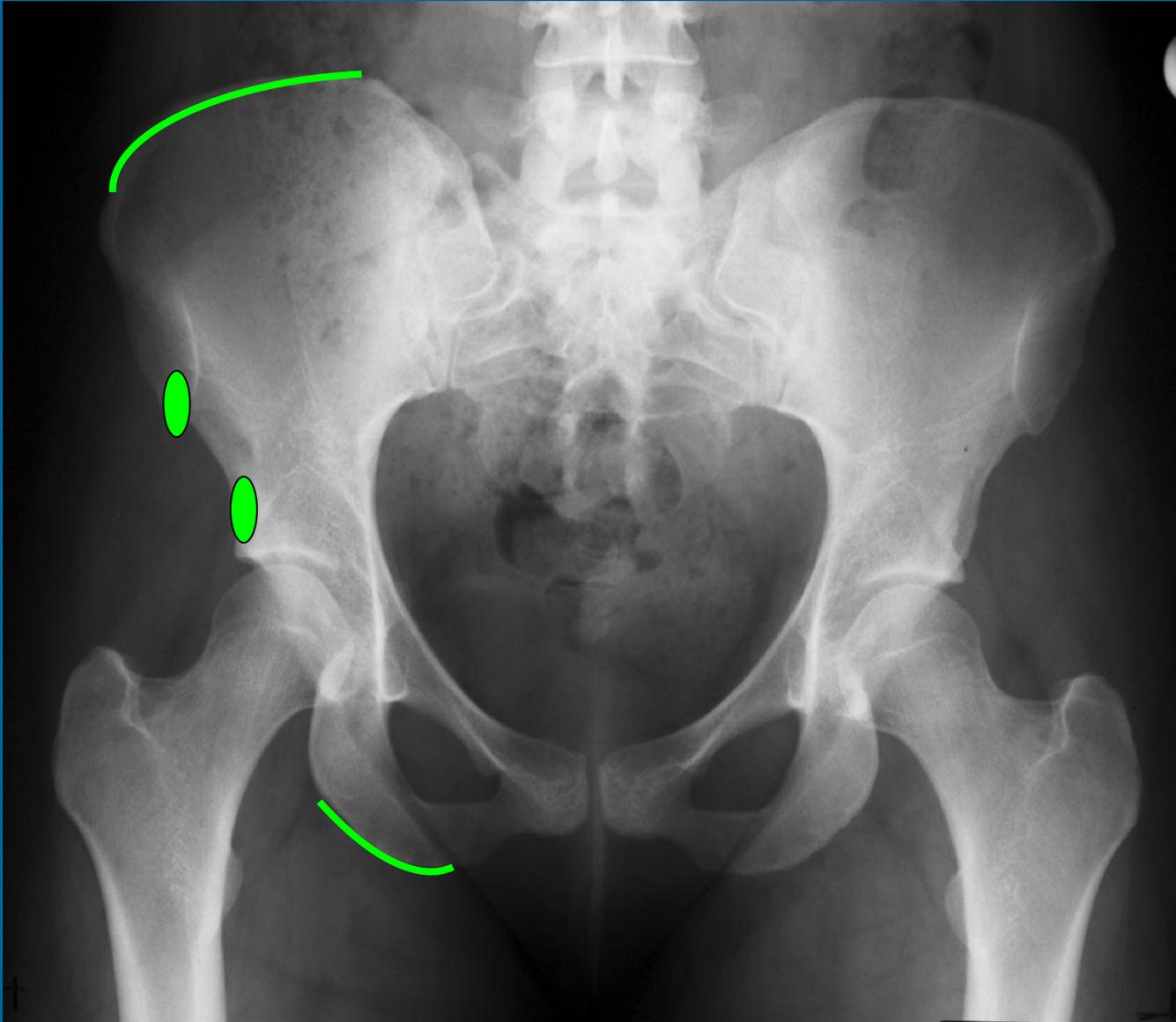
# Bony development



# Apophyses

- Four appear by puberty and fuse by age 25
- Muscular attachments
  - Anterior inferior iliac spine
  - Iliac crest
  - Ischial tubercle
  - Inferior pubic ramus

# The AP Radiograph



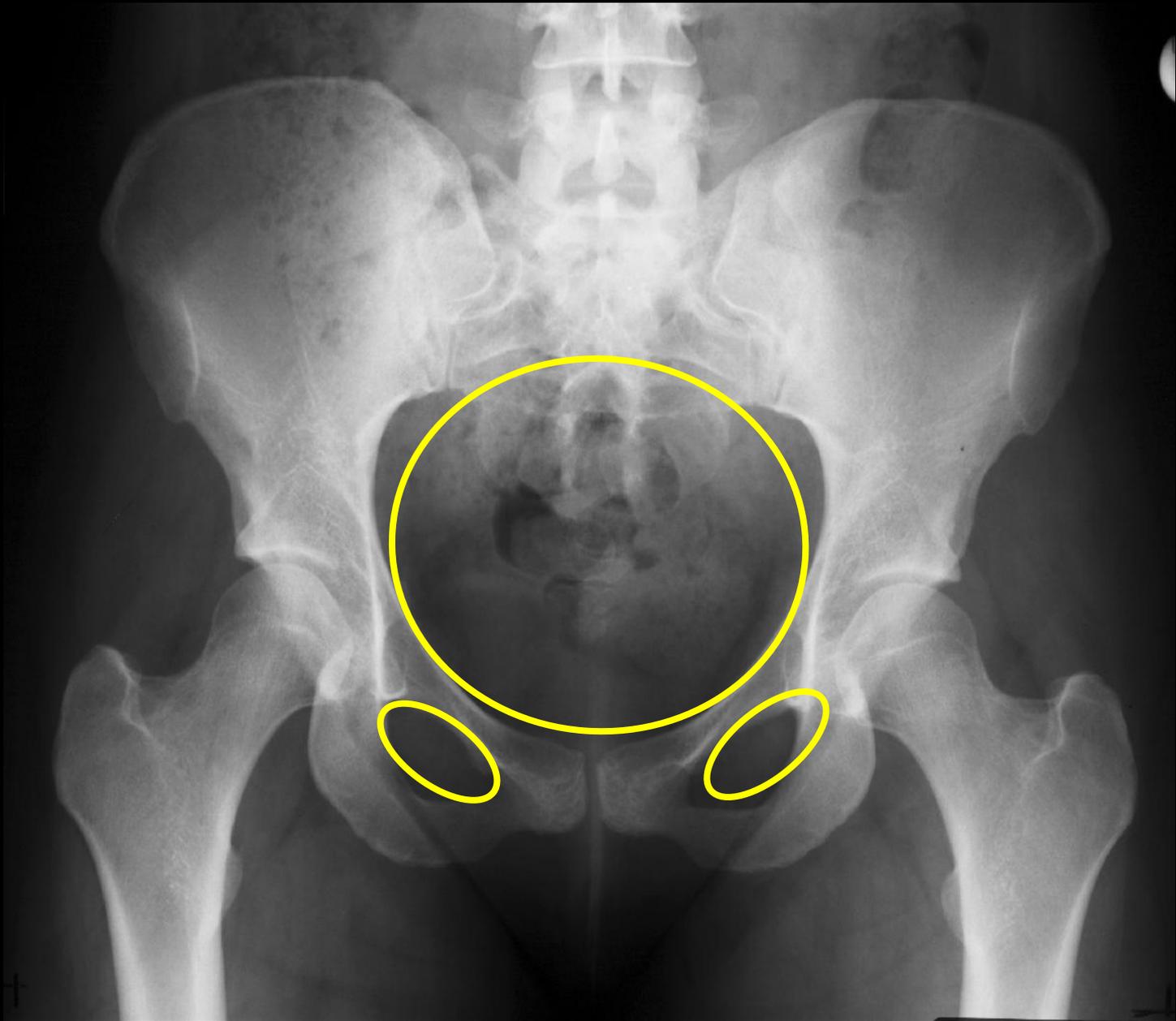


# AP view techniques

- Centring points
- Collimation
- Gonad shielding
- Orientation

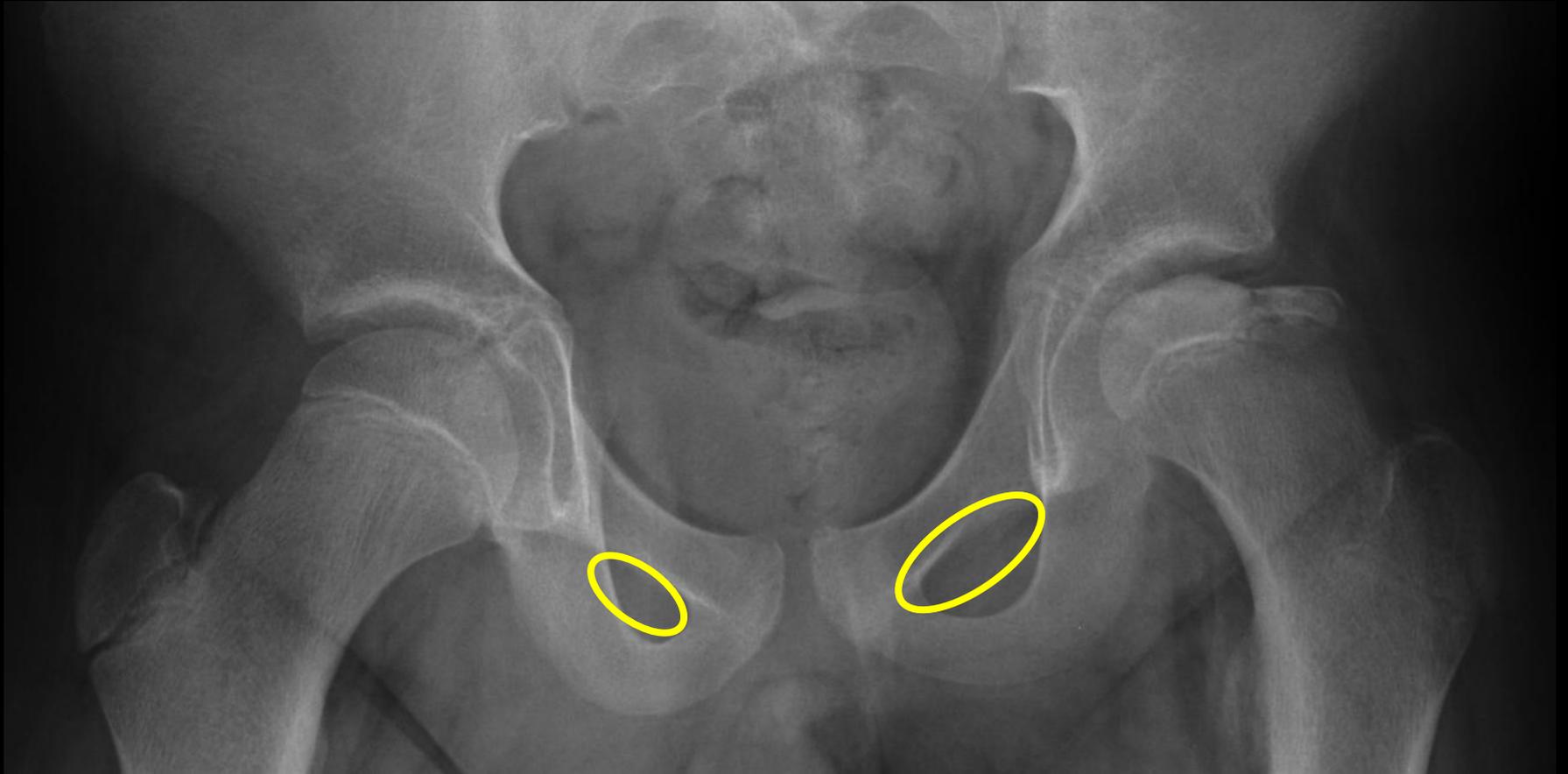
# Different Effects

- Rotation
- Centering
- Exposure
  
- Patient anatomy (soft tissues)



R



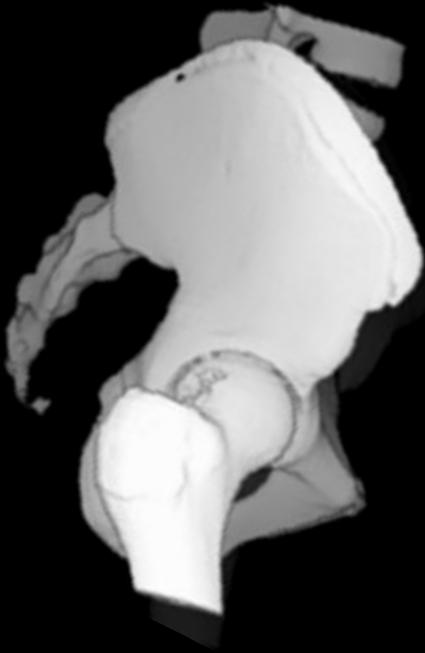




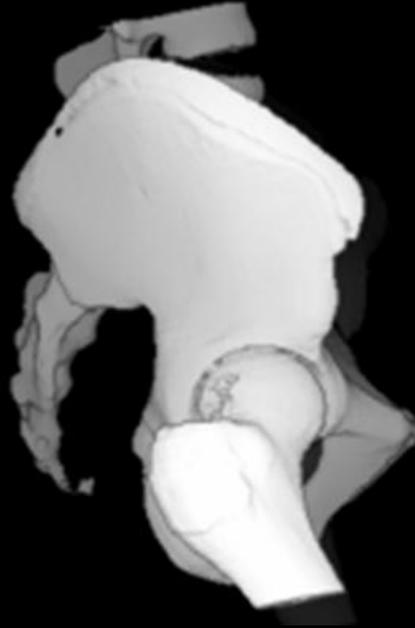
# Tilt (or centering)

- Tilt of pelvis
  - Anterior tilt
  - Posterior tilt
- Affects hip joint
- Anteversion / Retroversion
- Impingement

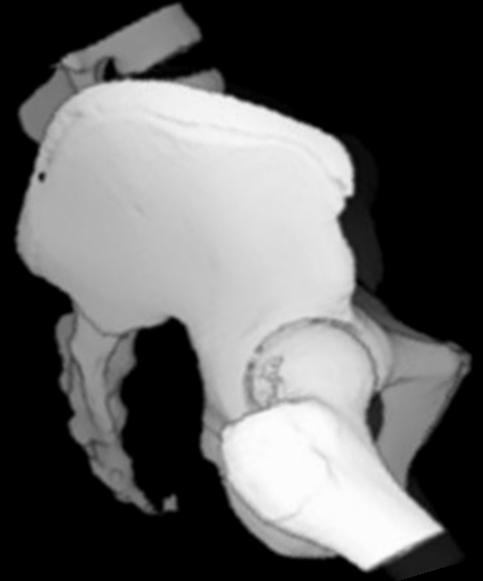
Anterior  
Tilt



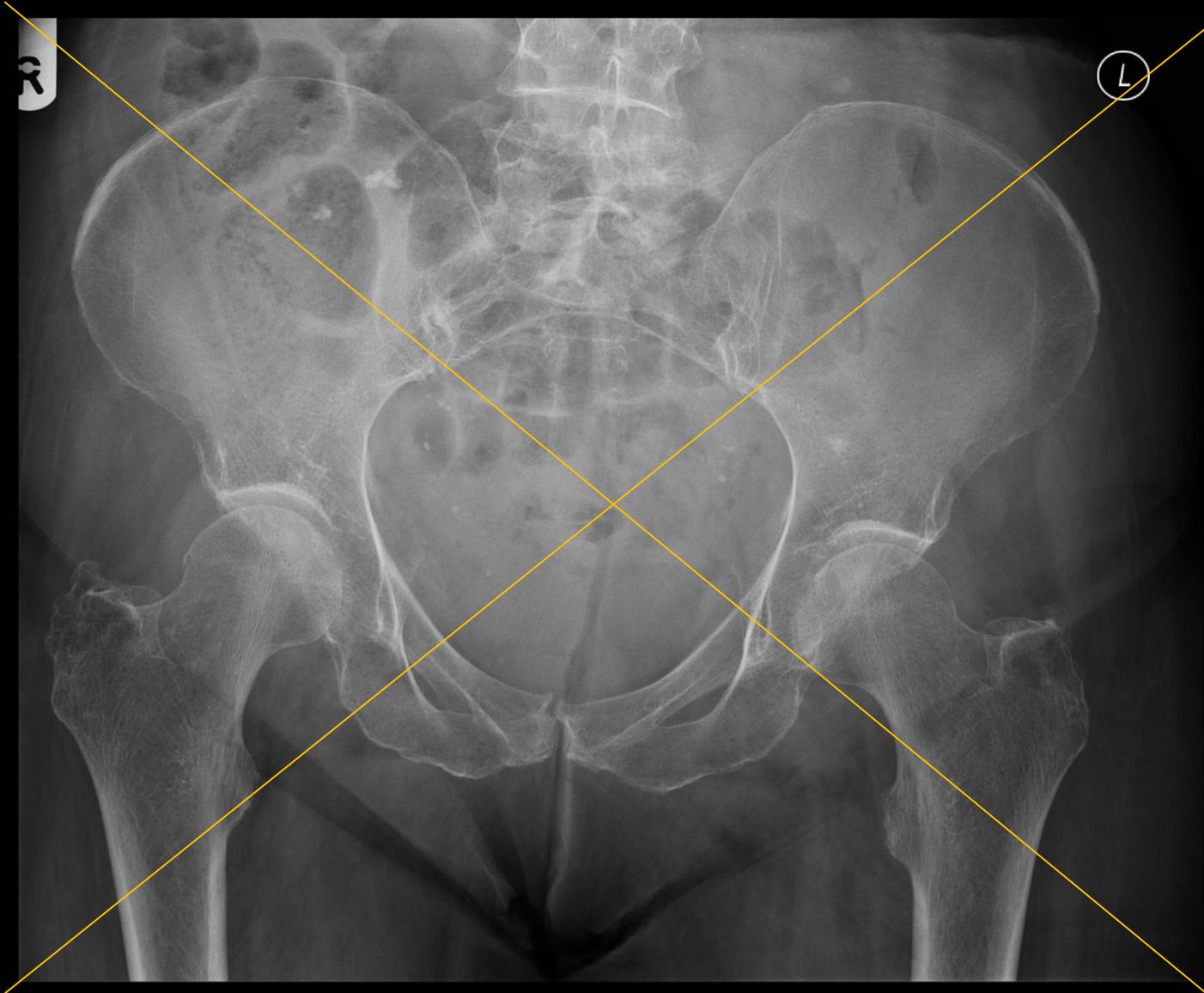
Neutral



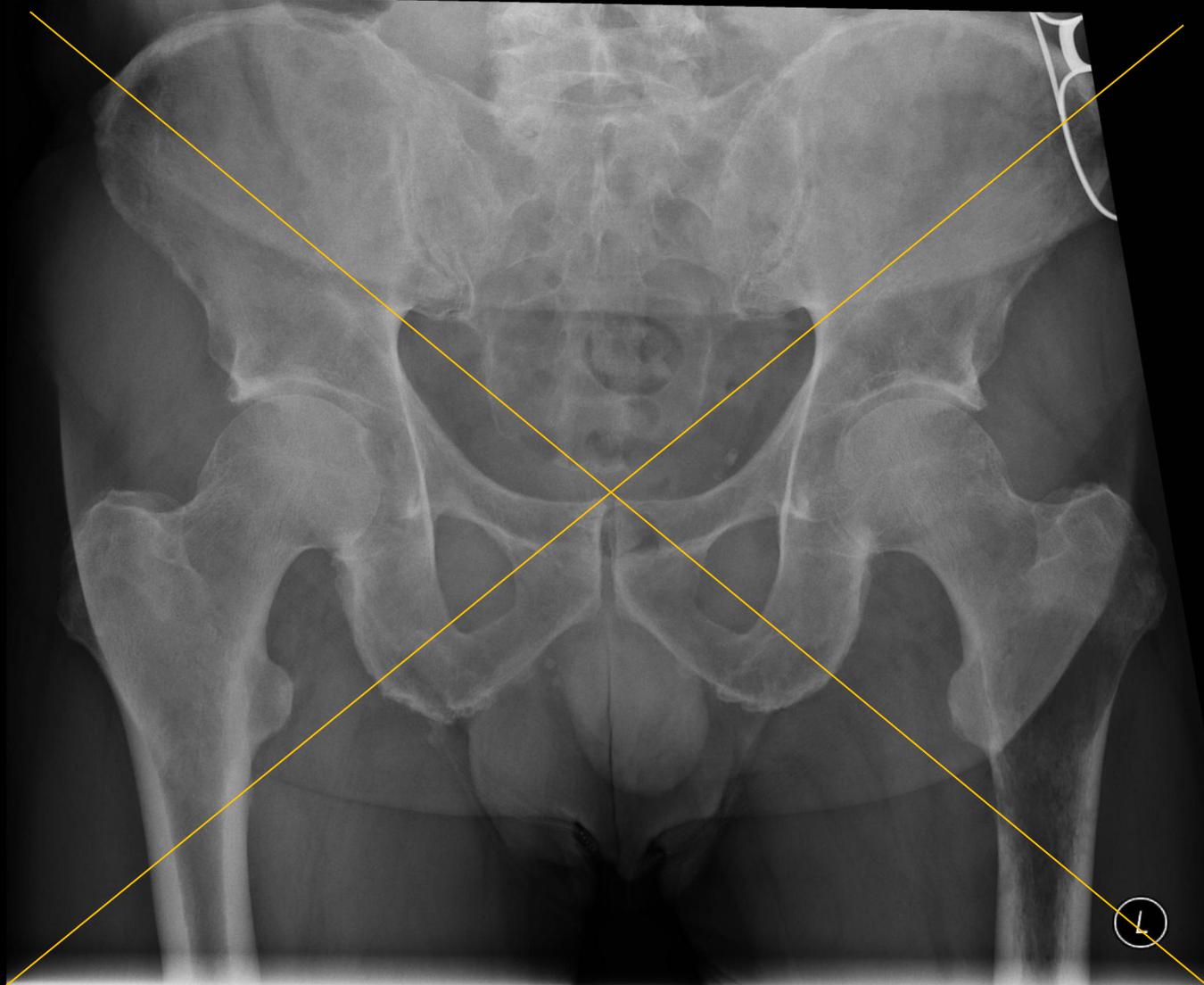
Posterior  
Tilt



# Tilt or centering?



# Tilt or centering?



# Another pelvis challenge

## - The lateral hip

# Air gap lateral hip

- Improved image quality
  - Reduced dose
  - Air gap – anti-scatter
  - No grid
- 
- Worked for us on film, CR and DR



# Air gap hip (no grid)

Barrell 2004

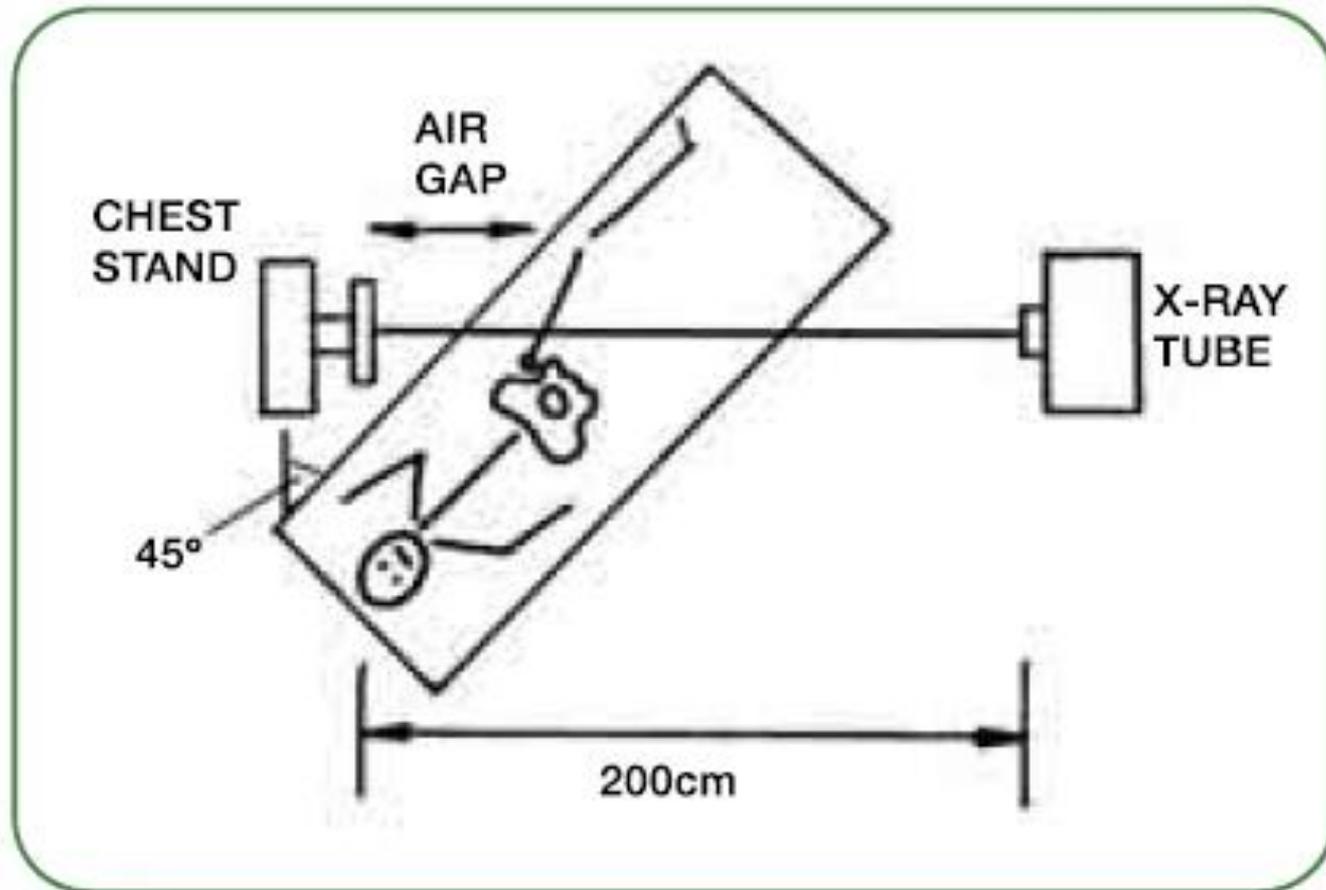
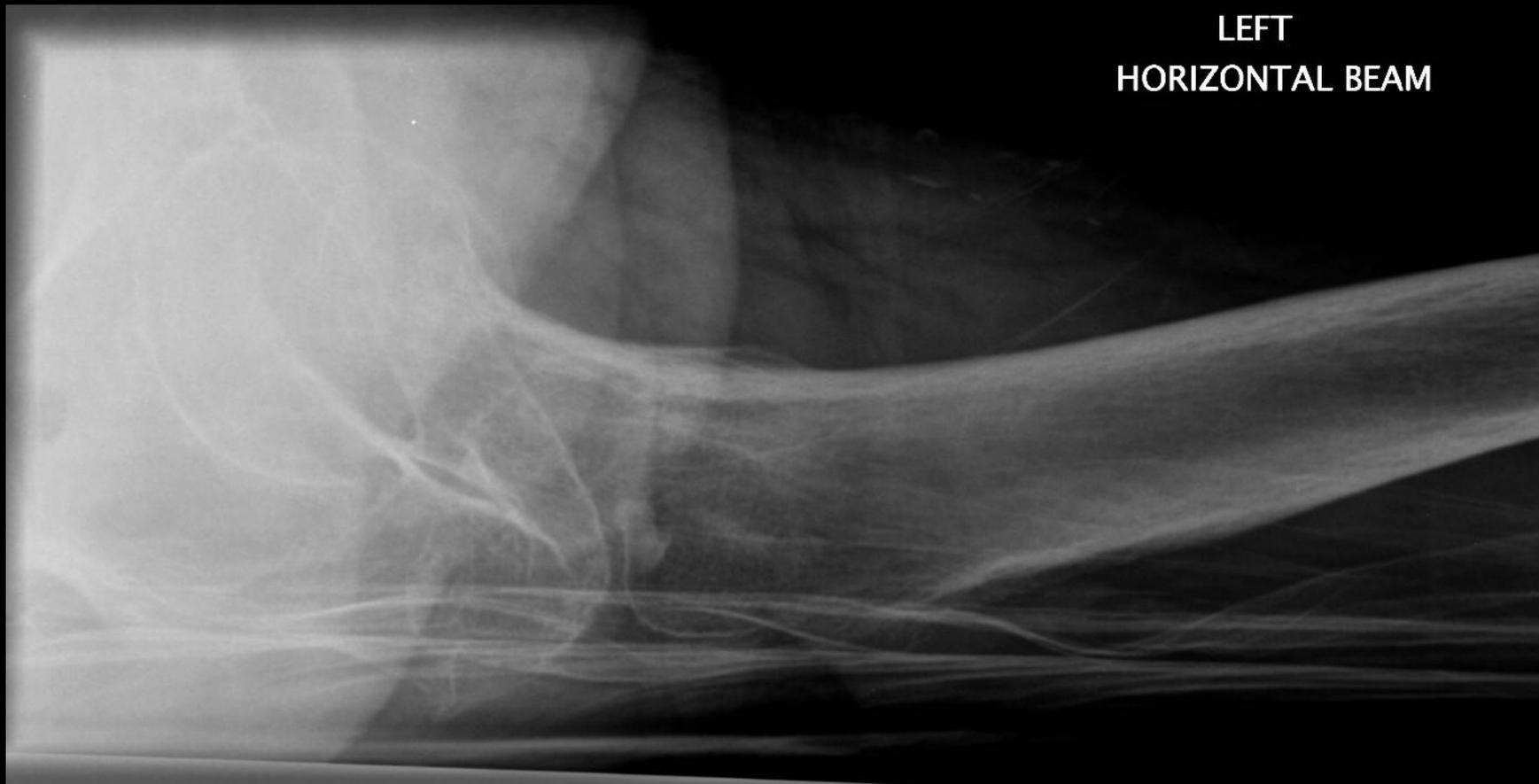


Figure 1: Patient positioning.

# Result

LEFT  
HORIZONTAL BEAM



# Learning points

- Anatomy
- Technique
  - Radiographer create or hide pathology
- Options for different technique



Multidisciplinary working

# Multidisciplinary

- Working as a team towards same goal
- Includes doctors, technologists, nurses, support staff, administration, etc...
- Why
  - Share workload
  - Effective care
  - Capacity and capability

# Key factors

- Understanding of each others:
  - Role
  - Knowledge, skills and limitations
  - Contribution
  - Aspirations

KEY – effective communication

# Multidisciplinary communication

- Management/leadership meetings
- Clinical team meetings
- Staff seminars
- Informal chats

# How it can help

- Improve outcomes
  - Share knowledge
  - Identify problems and solutions
- 
- Improve collaboration

# Example

- Radiographer sees something abnormal on a CXR
- Ensure urgent reporting
- Radiologist issues report
  
- Patient outcome improved

# How it will help radiographer knowledge base

- Instruction
- Assistance
- Support audit/research
- Identify gaps in knowledge base

# Knowledge base development

- Research
  - Local
  - National
  - International
- Dissemination
  - Conference presentation
  - Publication

# Publication inactivity

- Research inactivity
- Confidence (self-esteem)
  
- Time
- Knowledge
- Networks

# Radiography publication

- Only small number radiography journals
- Radiographers do publish in other journals
- Peer reviewed journals increasing articles and activity

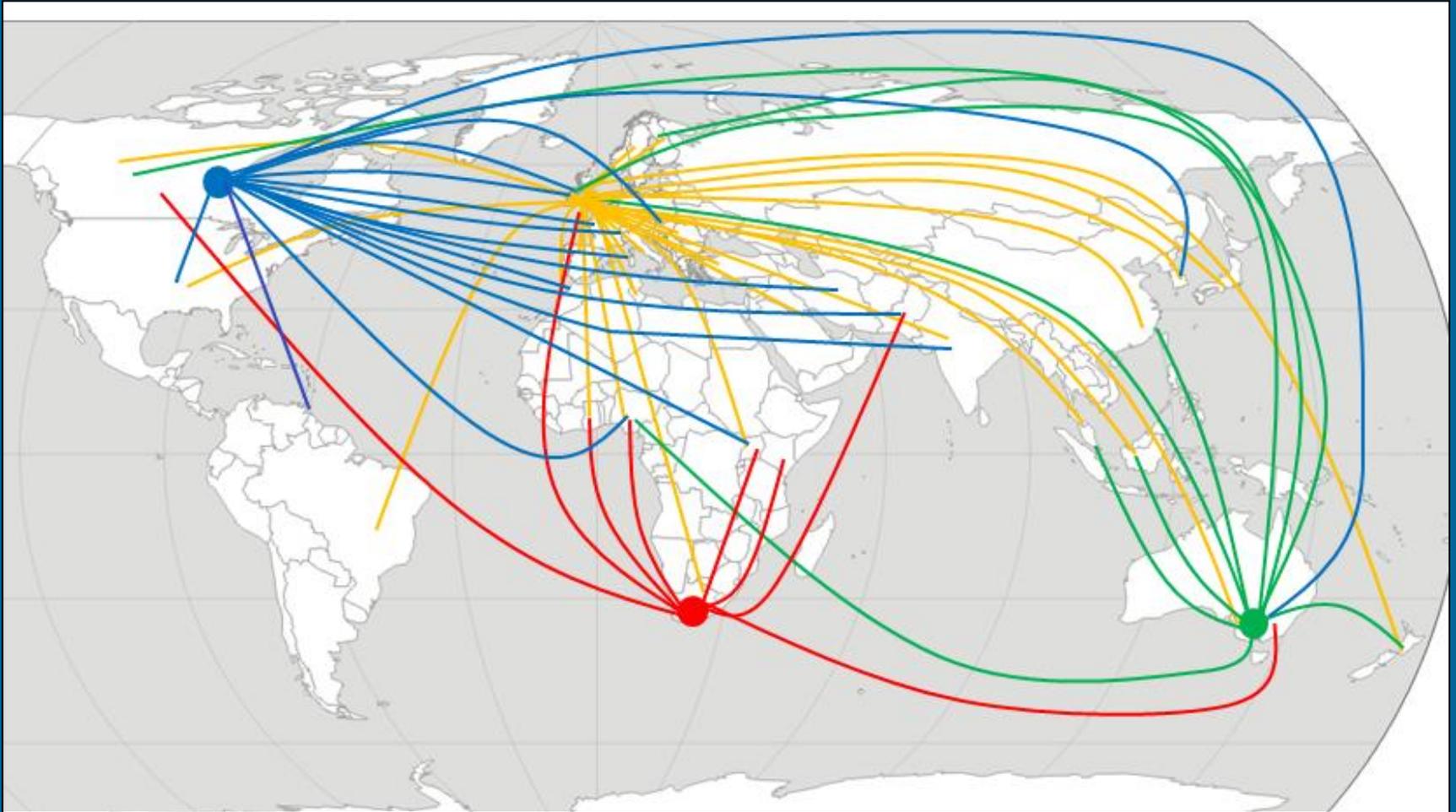
# Publication review

2004-2011 International journal review (4)

- 63.1% articles more than 1 author
- 77.5% (1012/1306) individuals wrote 1 article
- <2% of authors provide 20% of publications

Snaith 2013

# Results – geography



- Key
- JMIRS
  - Radiography
  - SAR
  - The Radiographer

# Journal choice

- Impact factor
  - Non-radiography
- Scope
- Audience
  
- Confidence
- Experience
- Rejection

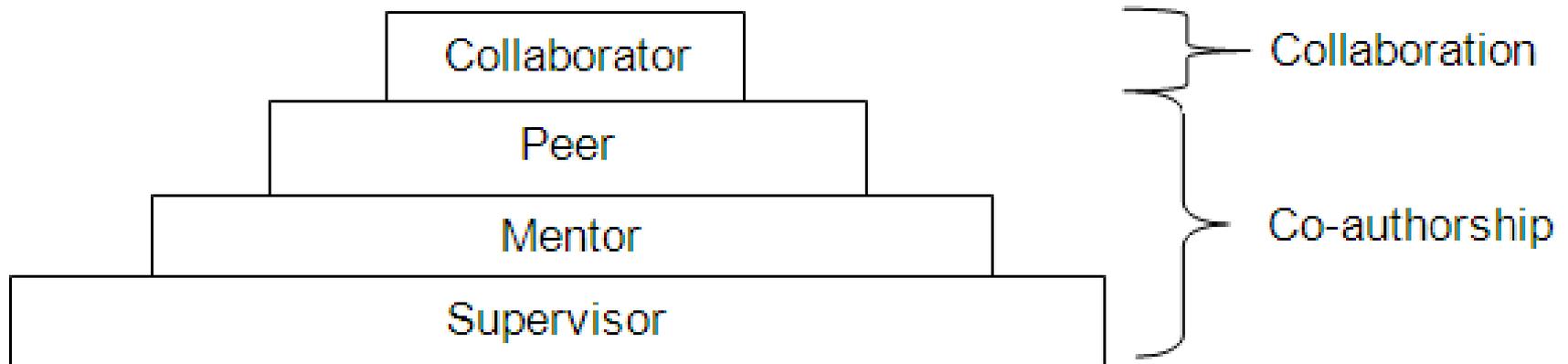
# Collaboration benefits

- Increasing quality
- Increasing publications

He, Geng and Campbell Hunt 2009

- Builds confidence
- Challenge
- Driver

# Hierarchy of collaboration



# Challenges to collaboration

- Finding a collaborator
  - Shared interests
  - Comfort
  - Time
  - Seniority
  
  - Shared journey

(May depend on hierarchy of collaboration)

# Opportunities

## Potential collaborators

- Own department
- School of Radiography / University
- Nationally

## Network

- Conferences / Meetings

# First steps

- Discussion with like minded colleagues
  - Clinical – Education
  - Clinical – Clinical
    - Radiographer – Radiographer
    - Radiographer – Radiologist
- Research
- Service improvement
- Case report



Next steps

# Personal and professional development

- Sharing experience
- Information sharing
- Setting personal learning challenges
  
- Audit
- Education
- Professional profile

# Individually

- What is the one key thing you are taking back to practice?
- What do you want to know more about?
- What do you want to share with colleagues?

Thank you

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