Department of Radiology Techniques
The Second Stage

Hip Joint
Lecture13

Assist. Lecturers

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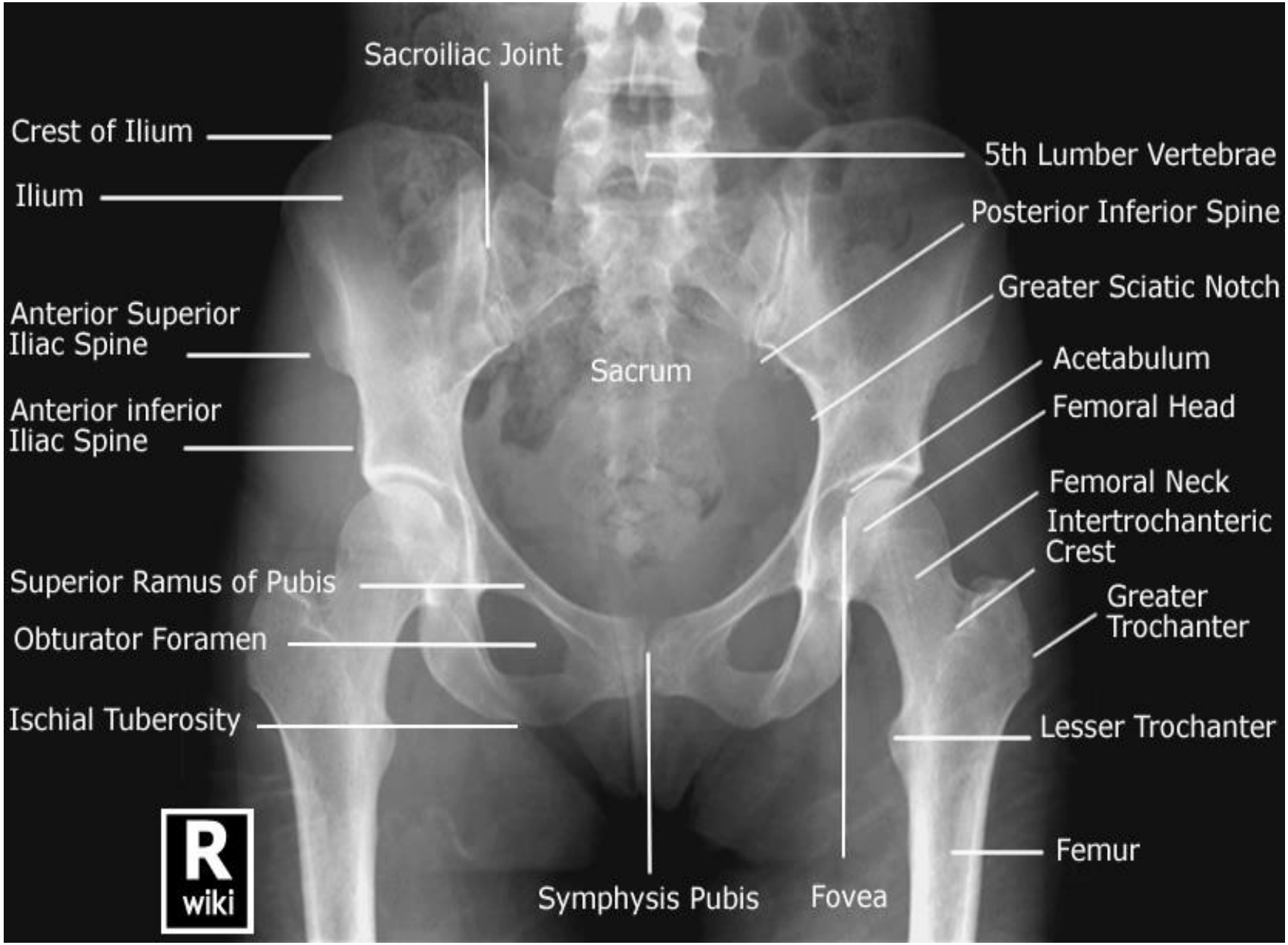
Sacroiliac Joint
Crest of Ilium
Ilium
5th Lumber Vertebrae
Posterior Inferior Spine
Greater Sciatic Notch
Anterior Superior Iliac Spine
Sacrum
Acetabulum
Femoral Head
Anterior inferior Iliac Spine
Femoral Neck
Intertrochanteric Crest
Superior Ramus of Pubis
Greater Trochanter
Obturator Foramen
Ischial Tuberosity
Lesser Trochanter
Femur
Symphysis Pubis
Fovea
R wiki

Antero-posterior (AP) position of both hips-pelvis

- Position of patient and image receptor

- Filmsize14x17 inches crosswise

- Image receptor placed in Bucky.
- The patient lies supine and symmetrical on the X-ray table with the Median sagittal plane perpendicular to the table.
- The limbs are slightly abducted and internally rotated to bring the femoral necks parallel to the image receptor (see Figure 1-a).
- The central ray directed over the midline midway between the Upper border of the symphysis pubis

Figure1-a: Patient positioning for antero-posterior (AP) pelvis.

Figure1-b: AP radiograph of both hip sand upper femora, demonstrating fully the left total hip replacement.

Antero-posterior (AP)position of single hip

- Position of patient and image receptor

- Film size10x12 inches lengthwise
- Image receptor placed in Bucky.
- The patient positioned as described for the basic pelvis and basic

Bilateral hip projections.

- The affected limb is internally rotated to bring the neck of femur parallel to the table top, supported by sandbags if necessary (see Figure 2-a).
- The central ray directed over 2.5 cm distally along the perpendicular bisector of a line joining the anterior superior iliac spine and the symphysis pubis over the femoral pulse

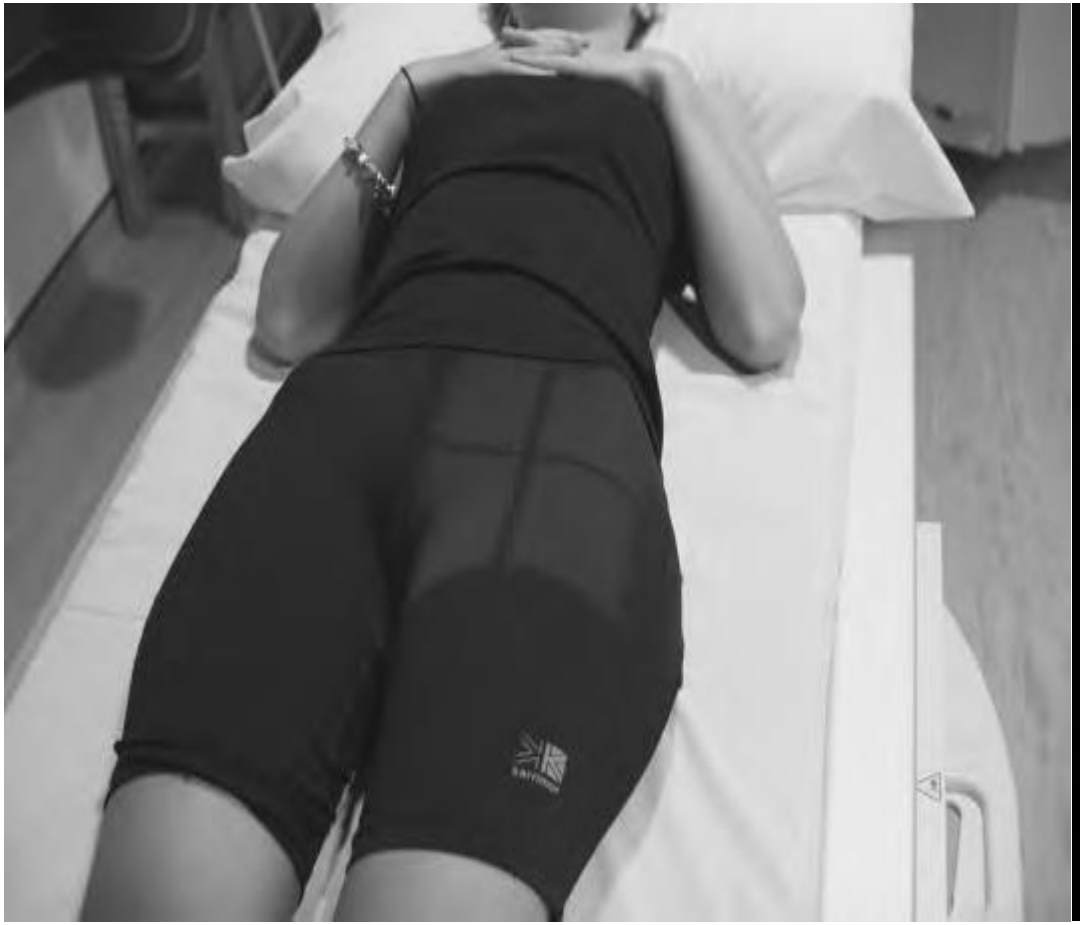

Figure2-a: Patient positioning for AP single hip.

Figure2-b: Radiograph of Normal AP right hip.

LATERAL POSITION / Hip Joint

- Position of patient and image receptor

- Film size10x12 inches lengthwise or digital radiography.
- Image receptor placed in Bucky.
- Place the patient in the supine position.
- The patient to turn onto the affected side to an oblique position.
- The degree of obliquity depends on how much the patient can abduct the leg.
- Ask the patient to flex the affected knee.
- Extend the opposite limb posteriorly.
- CR Perpendicular through the hip joint and the center of the IR.

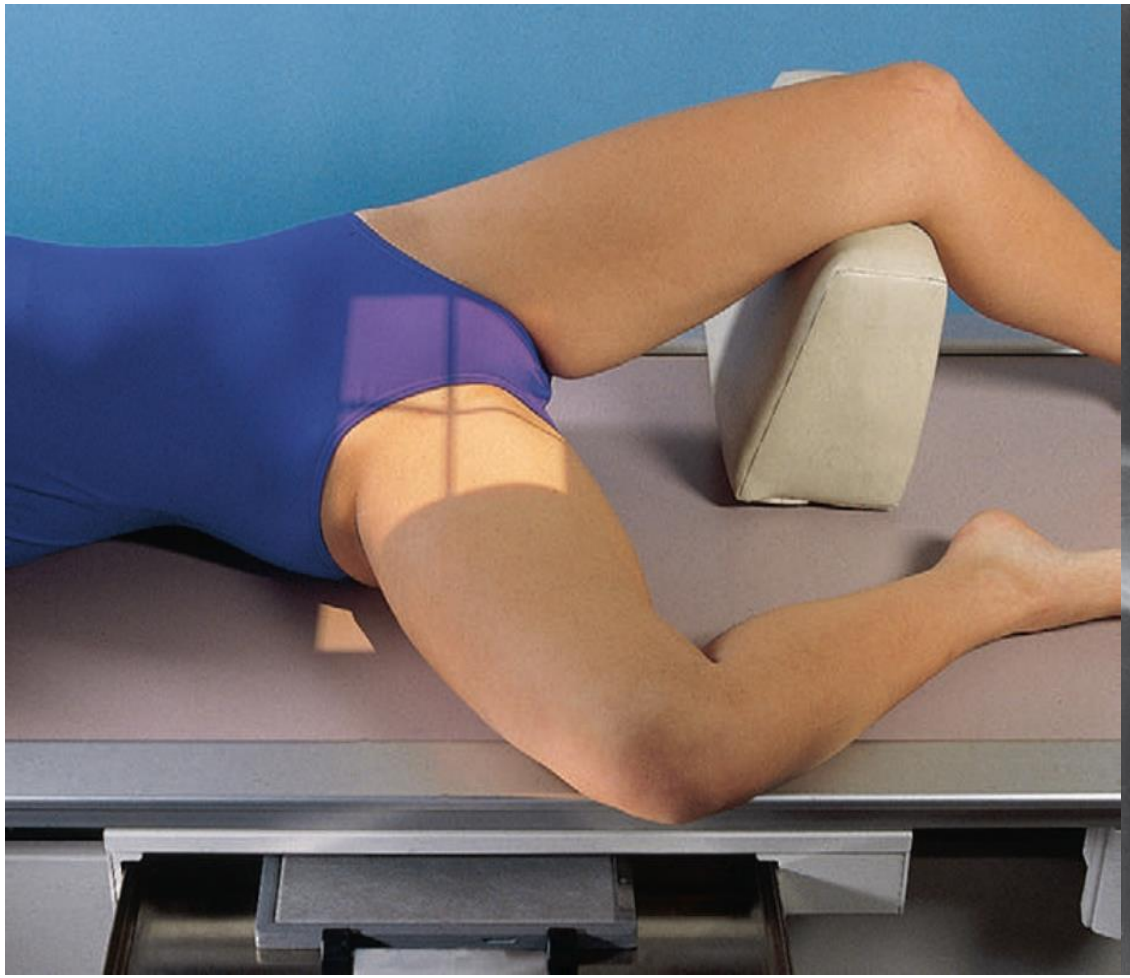

Figure3-a: Patient positioning for true lateral hip joint.

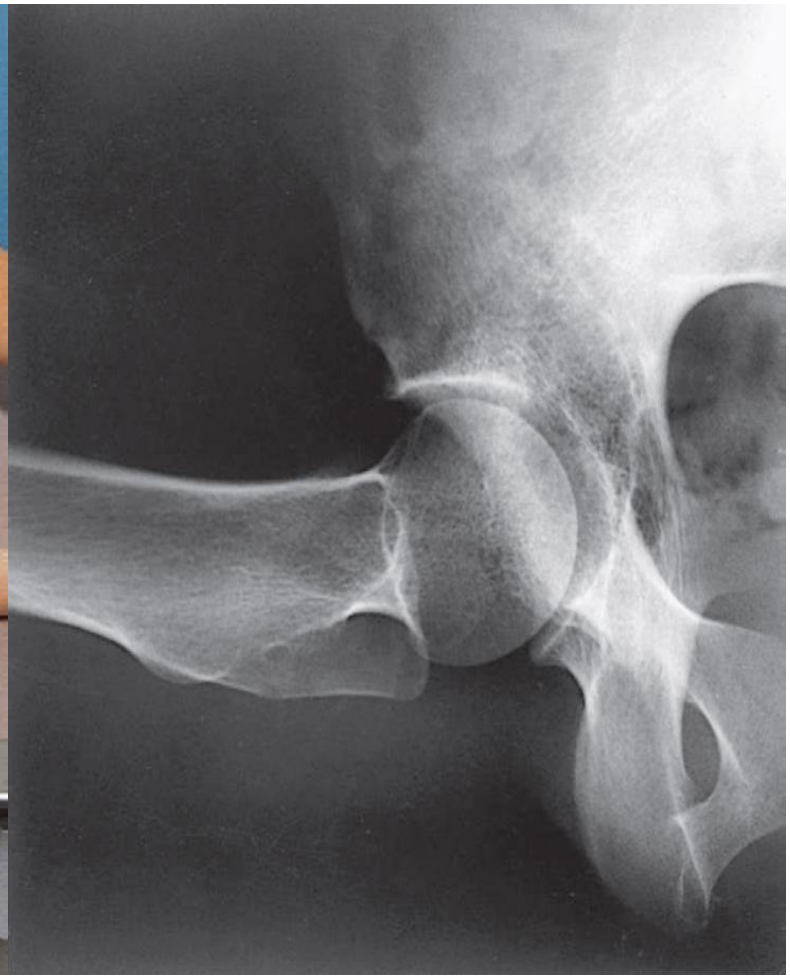

Figure3-b: True lateral radiograph of right hip, demonstrating undisplaced subcapital femoral neck fracture.

Lateral–both hips (‘frog’s legs position’)

- Position of patient and image receptor

- Filmsize14x17 inches crosswise
- Image receptor placed in Bucky.
- The patient lies supine on the X-ray table with the anterior superior iliac spines equidistant from the table top to avoid rotation of the pelvis.
- The median sagittal plane is perpendicular to the table and coincident with the center of the table.
- **The hips and knees are flexed and both limbs rotated laterally through approximately 60°. This movement separates the knees and brings the plantar aspect of the feet in contact with each other (see Figure 4-a).**
- The central ray directed in the midline at the level of the femoral pulse

  With the central ray perpendicular to the image receptor.

Figure4-a: Patient positioning for Figure demonstrating both hips in lateral

'Frog's legs' projection.

4-b: Normal radiograph (frog's legs).projection


Thanks