

The background is a dark purple gradient. It features several overlapping circles of varying sizes and shades of purple. A solid pink rectangle is positioned in the top right corner.

Case Discussion

Patient profile

▶ Case หญิง 75 ปี unknown underlying disease

▶ มาตรวจ หืด ชุกเงิน 3 ธันวาคม 2560

CC : ปวดเข่า ร้าวไปสะโพกซ้าย 30 นาที ก่อนมาโรงพยาบาล

PI : 30 ก่อนมาโรงพยาบาล ล้มที่บ้าน มีแผลถลอกที่เข่าซ้าย ปวดเข่าซ้าย ร้าวไปสะโพกซ้าย เดินไม่ได้ ไม่สลบ

Physical examination

- ▶ Vital signs : BT 36.6c HR 68 bpm RR 20 bpm BP 110/70mmHg
- ▶ A Thai female of her age , good consciousness
- ▶ Heart: normal s1 s2 no murmur
- ▶ Lungs: clear equal both lung no adventitious sound
- ▶ Abdomen soft not tender
- ▶ Neurological E4V5M6 pupil 3 mm RTLBE motor gr. v/v except Lt. lower extremity limit ROM due to pain
- ▶ Extremity tender at Lt. hip limit Rom due to pain

Abrasion wound 2*2 cm Lt. knee with limit ROM due to pain

Problem list

Problem list

- ▶ Left hip pain
- ▶ Falling
- ▶ Old age group

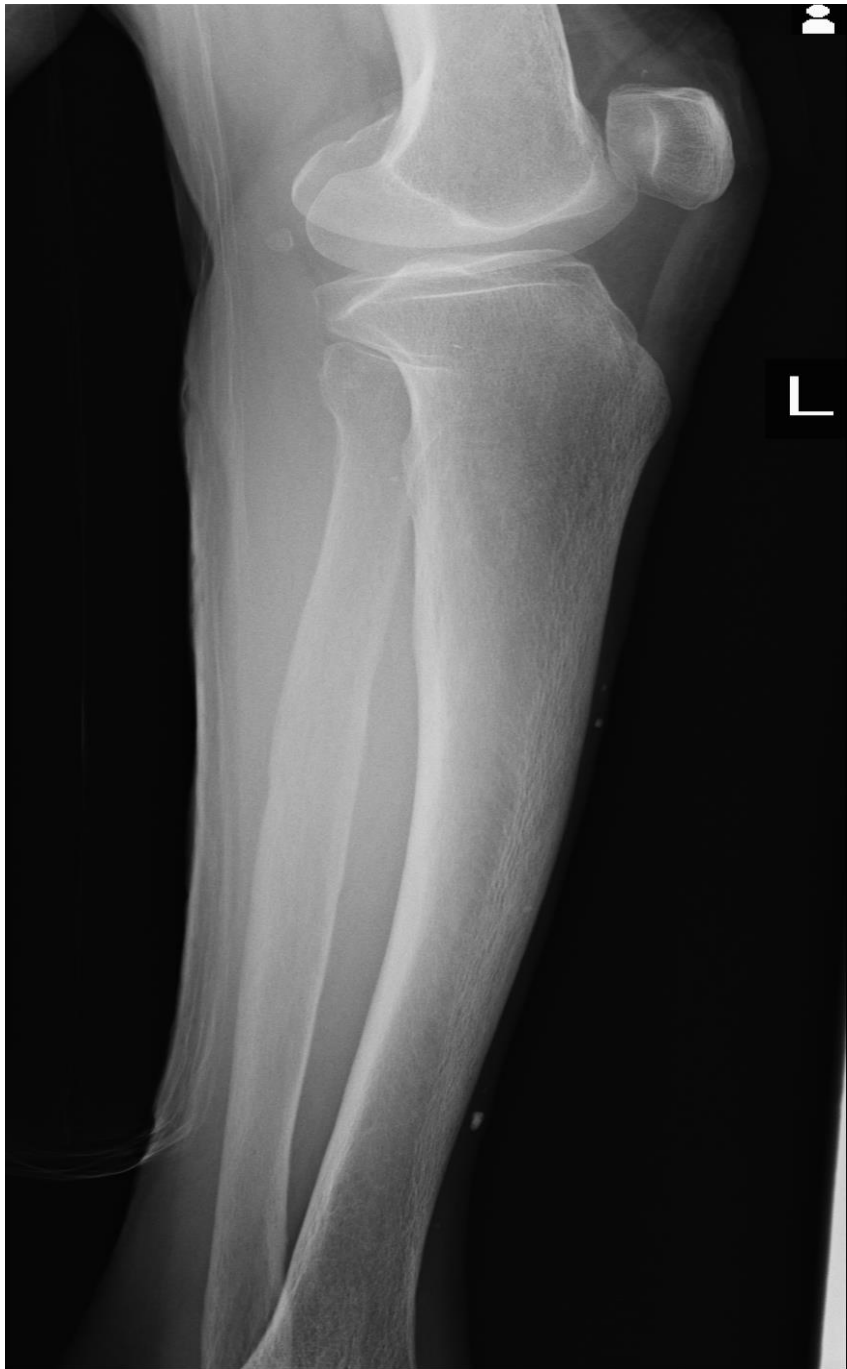
Differential diagnosis

DDx

- ▶ Hip fracture
 - ▶ intracapsular fracture
 - ▶ Fracture head of femur
 - ▶ Fracture neck of femur
 - ▶ Extracapsular fracture
 - ▶ Intertrochanteric
 - ▶ Subtrochanteric
- ▶ Spinal pathology – fracture, sprain
- ▶ Fracture around knee joint



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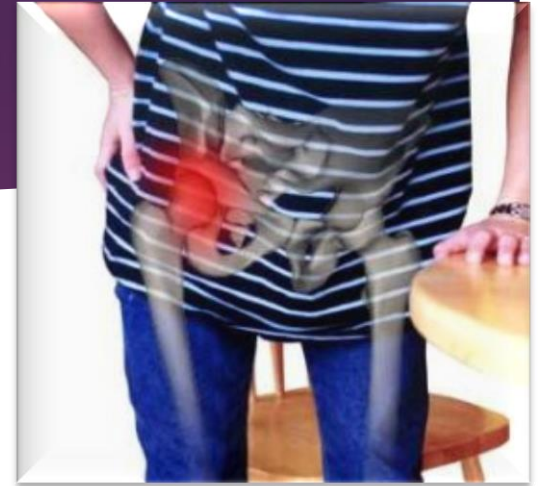
Femoral Neck Fractures

Etiology

- ▶ Elderly: low-energy falls with osteoporosis
- ▶ Young(low incidence) :high-energy trauma

Clinical Features

- ▶ history of a traumatic event
- ▶ Hip pain
- ▶ Restriction of movement
- ▶ Pain on range of hip motion
- ▶ Tenderness to palpation of groin
- ▶ Leg shortening
- ▶ External rotation



The Garden classification

- ▶ most commonly used classification system

- ▶ Stage I: incomplete fracture line (valgus impacted)
- ▶ Stage II: complete fracture line; nondisplaced
- ▶ Stage III: complete fracture line; partially displaced
- ▶ Stage IV: complete fracture line; completely displaced



Stage I



Stage II



Stage III



Stage IV

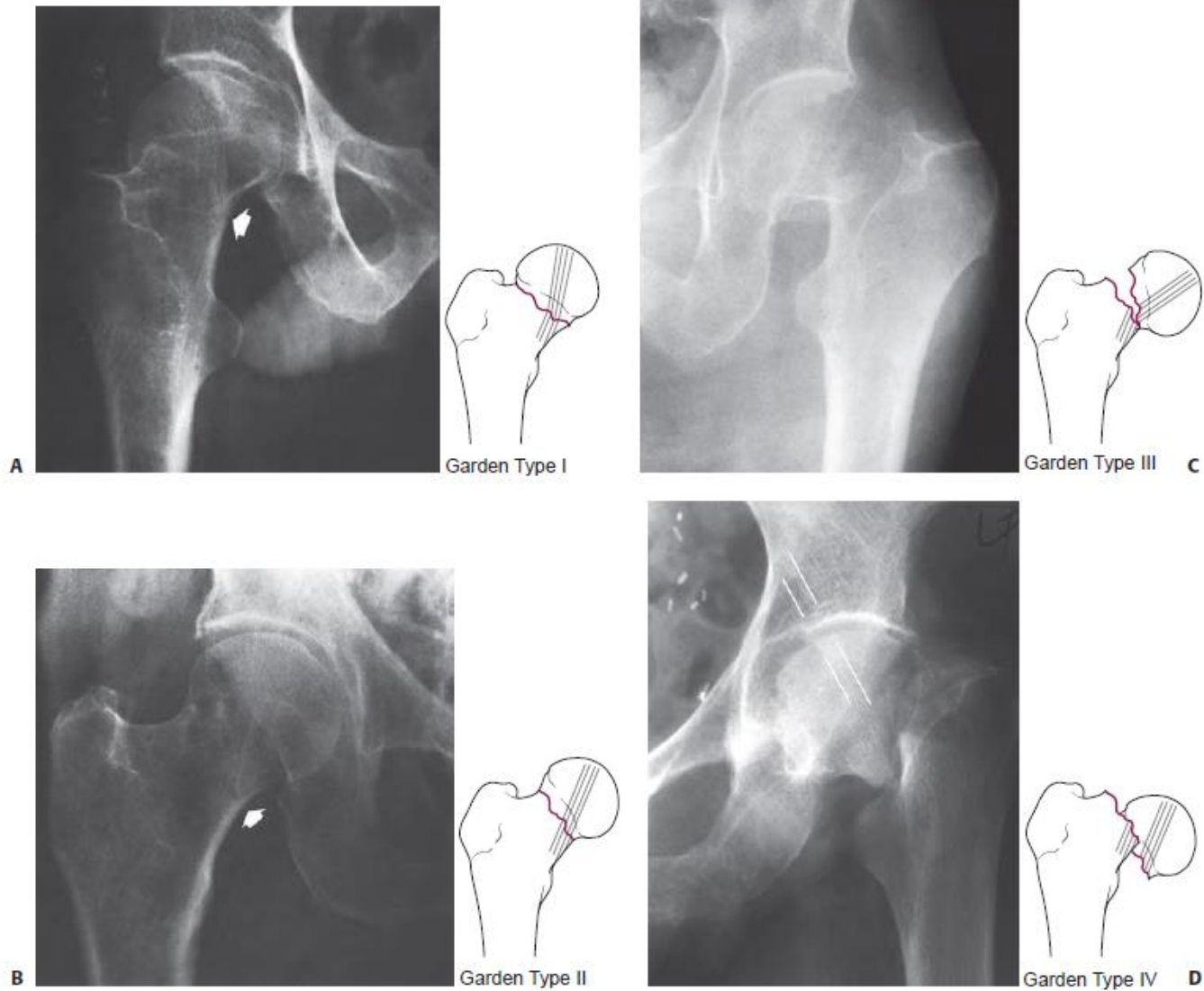
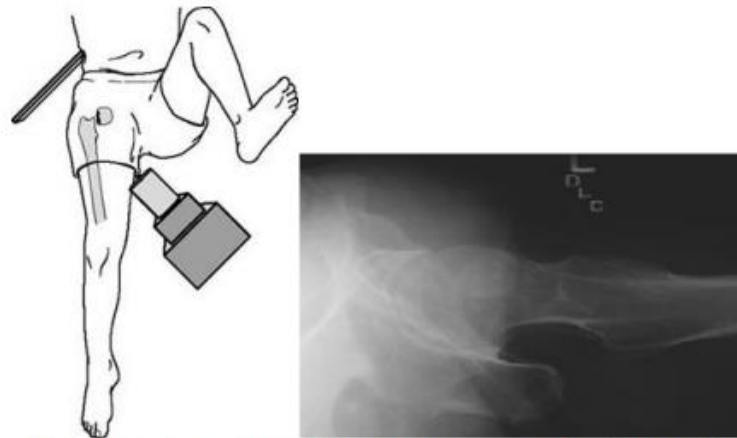


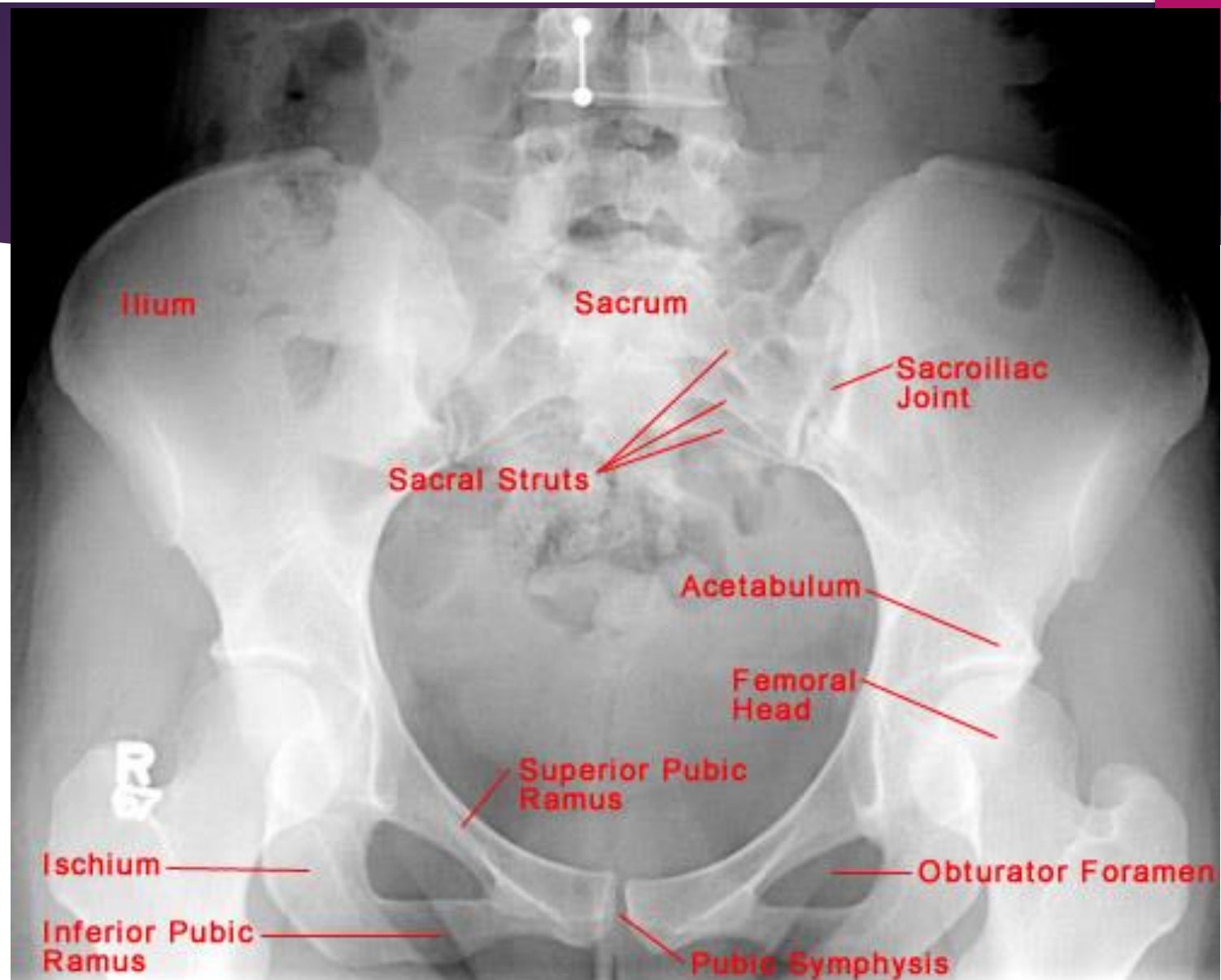
FIGURE 49-3 The Garden classification of femoral neck fractures. Type I fractures can be incomplete, but much more typically they are impacted into valgus, and retroversion (**A**). Type II fractures are complete, but undisplaced. These rare fractures have a break in the trabeculations, but no shift in alignment (**B**). Type III fractures have marked angulation, but usually minimal to no proximal translation of the shaft (**C**). In the Garden Type IV fracture, there is complete displacement between fragments and the shaft translates proximally (**D**). The head is free to realign itself within the acetabulum, and the primary compressive trabeculae of the head and acetabulum realign (*white lines*).

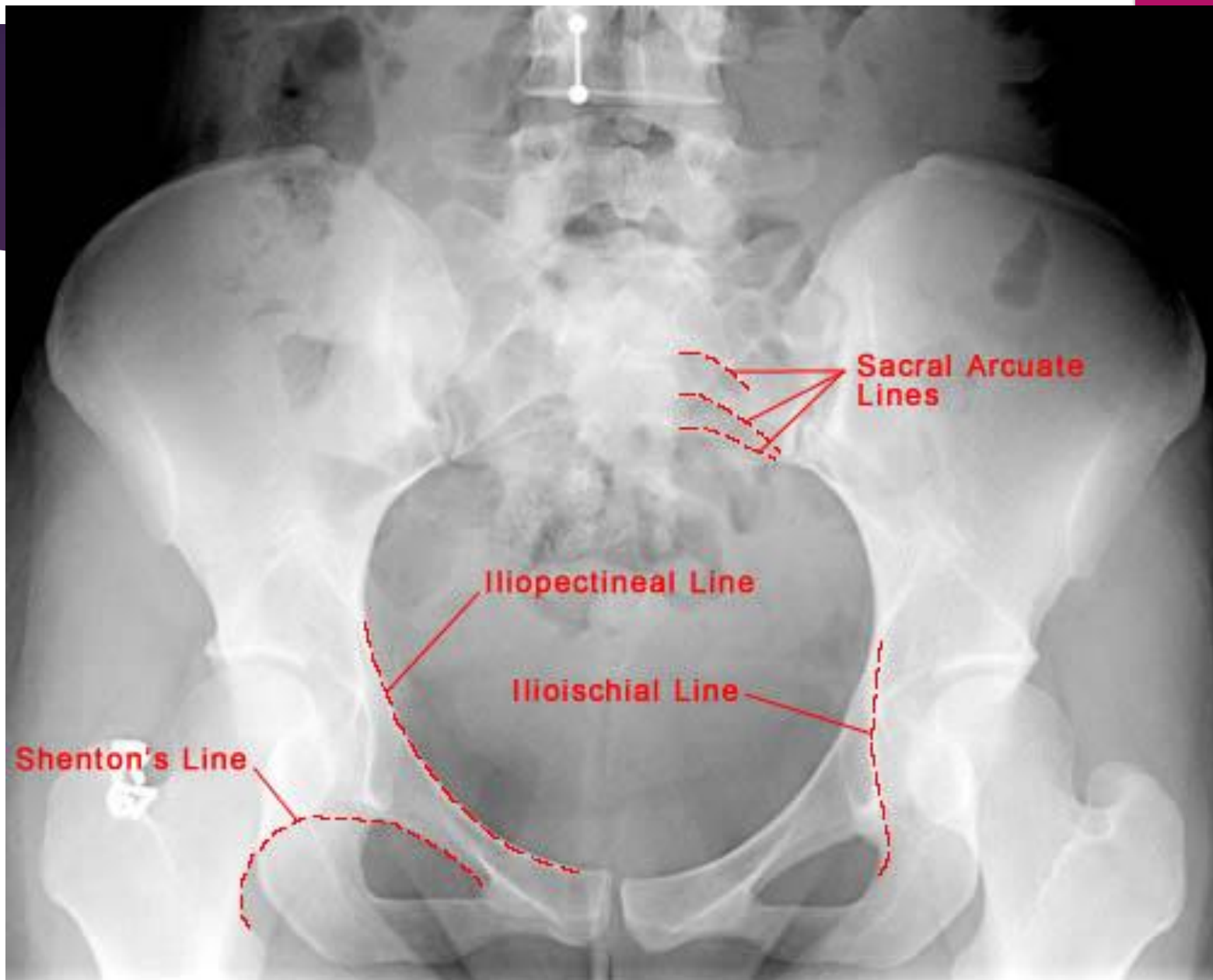
RADIOGRAPHIC EVALUATION

- ▶ X-ray
 - ▶ AP pelvis
 - ▶ cross-table lateral view of hip
 - ▶ internal rotation view of the injured hip may be helpful to clarify the fracture pattern further



รูปที่ 7 แสดงเทคนิคการถ่ายภาพรังสีในท่า lateral cross table โดยทำการรองสะโพกและเข่าด้านปกติขึ้น และฉายรังสีตั้งฉากกับคอกระดูกต้นขา เพื่อให้ได้ภาพรังสีในแนวด้านข้าง (lateral view) โดยไม่ขยับสะโพกด้านที่







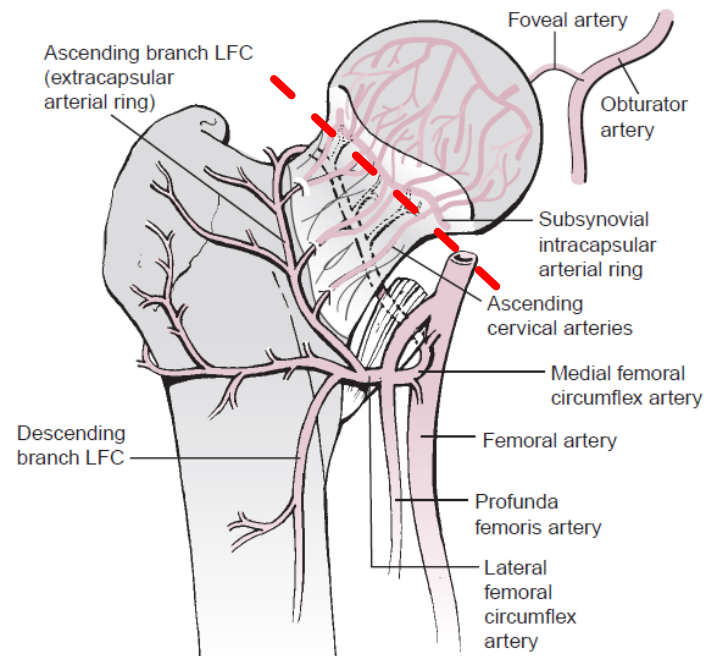
ภาพที่ 21 ภาพรังสีในท่า AP ของ pelvis แสดง displaced femoral neck fracture ทางด้านขวา พบว่ามี disruption ของ Shenton's line (เส้นประ) ทางขวาซึ่งผิดปกติเทียบกับฝั่งซ้ายที่ปกติ

Treatment

- ▶ Goals of treatment
 - ▶ minimize patient discomfort
 - ▶ restore hip function
 - ▶ allow rapid mobilization by obtaining early anatomic reduction and stable internal fixation or prosthetic replacement.

Nonoperative treatment

- indicated only for patients who are at extreme medical risk for surgery



Operative Treatment

- ▶ older are best treated with hemiarthroplasty or total hip arthroplasty
- ▶ Younger patients are treated with internal fixation
- ▶ arthroplasty substantially reduced the risk of revision surgery compared with internal fixation in the treatment of displaced femoral neck fractures in patients aged 65 years or older.

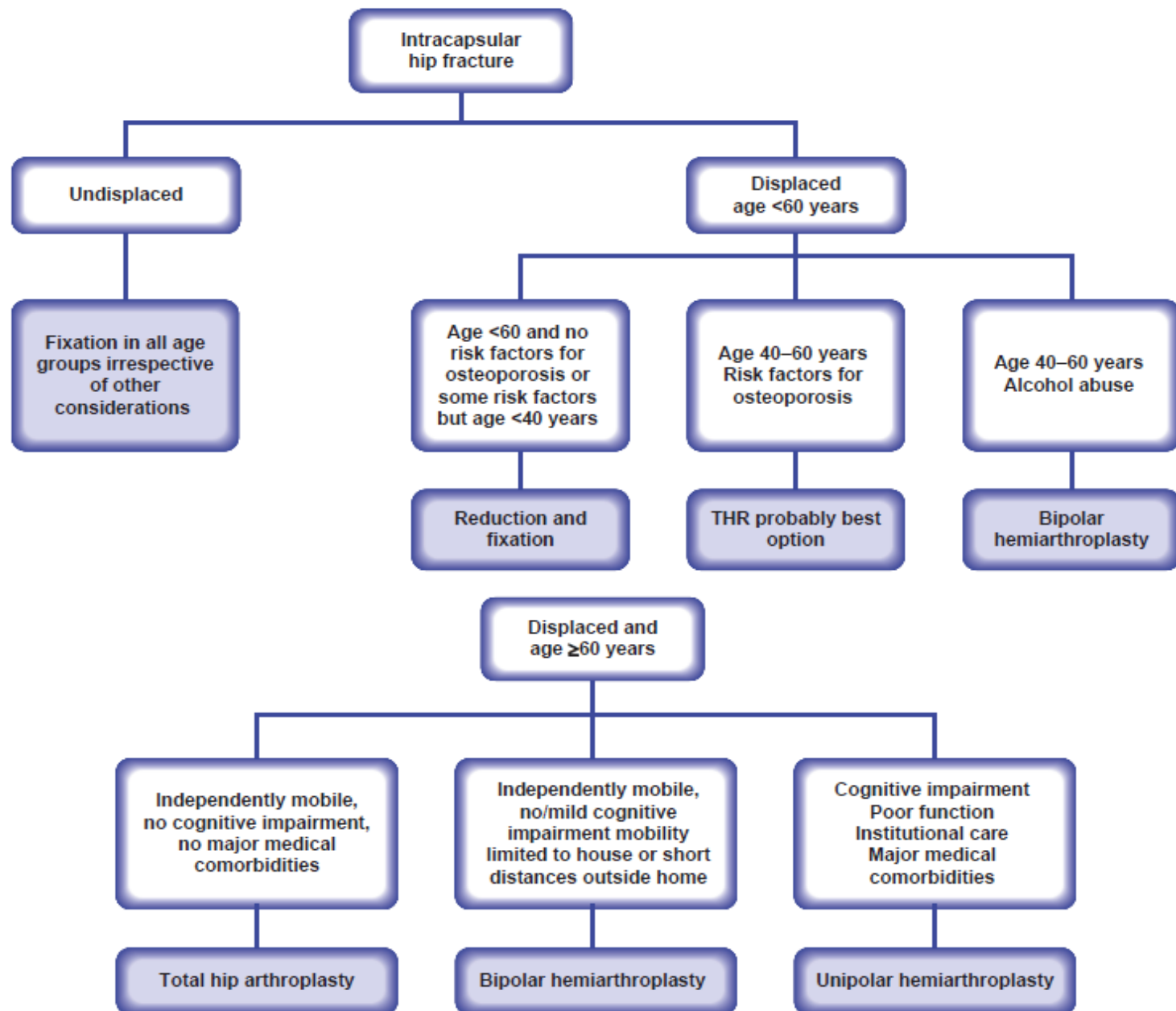


FIGURE 49-19 Algorithm for treatment of femoral neck fractures.

Fixation of Femoral Neck Fracture with Cannulated Screws

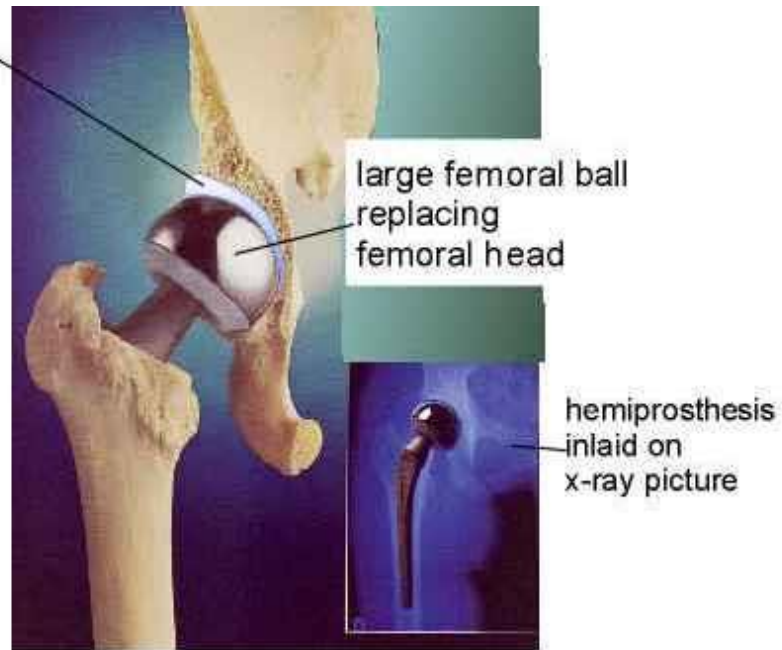
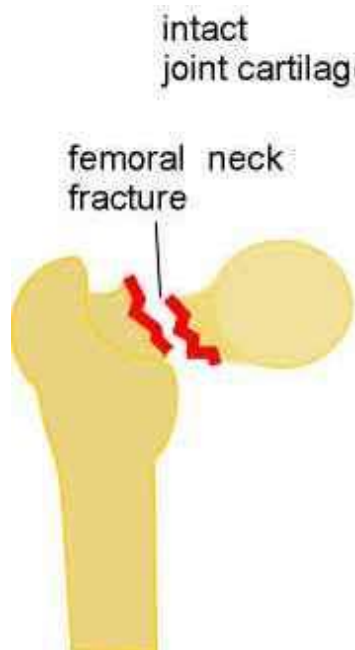


- indications
 - nondisplaced transcervical fx
 - Garden I and II fracture patterns in the physiologically elderly
 - displaced transcervical fx in young patient
 - considered a surgical emergency
 - achieve reduction to limit vascular insult
 - reduction must be anatomic, so open if necessary

Open Reduction and Internal Fixation

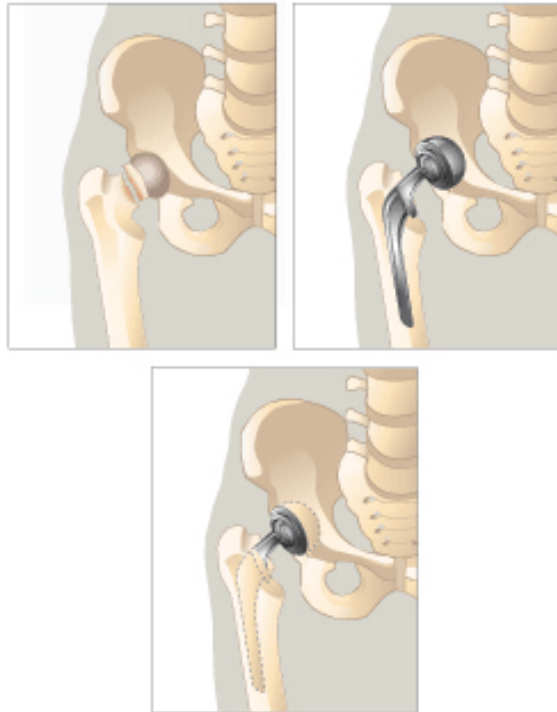


hemiarthroplasty



total hip arthroplasty

Total Hip Replacement (aka total hip arthroplasty)



Complications

- Nonunion /Fixation failure
- Avascular necrosis
- Thromboembolism
- Infection due to immobilization