



Standard Treatment Workflow (STW) INTERTROCHANTERIC FEMORAL FRACTURES

ICD-10-S72. 14

DEFINITION

- Extracapsular fractures of the proximal femur that occur between the greater and lesser trochanter

RISK FACTORS

- Osteoporosis
- Advancing age
- Increased number of comorbidities
- Increased dependency with Activities of Daily Living (ADL)

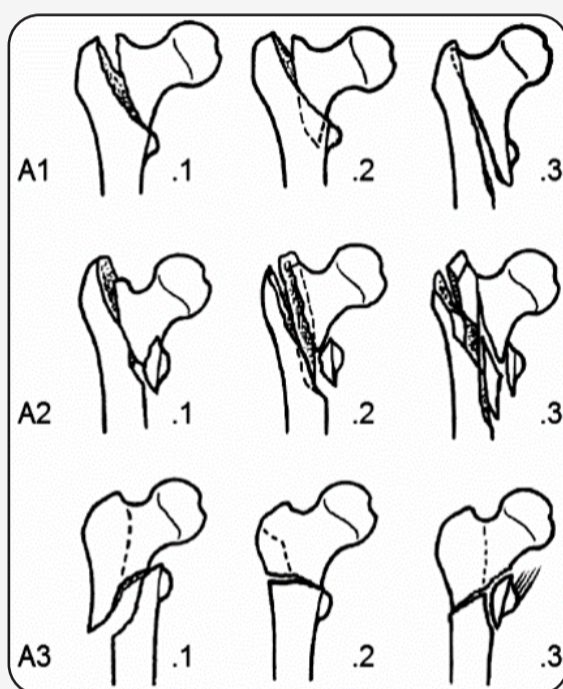
SYMPTOMS AND SIGNS

- Severe pain in the hip after fall/Road Traffic Accident (RTA)
- Limb in a deformed position (usually external rotation)
- Unable to move and stand on the injured limb
- Bruising and swelling around the hip
- Tenderness at trochanteric level

MANAGEMENT

AO CLASSIFICATION

- AO/OTA type-31-A pertrochanteric fractures: 31-A1 fractures - simple
- 31-A2 fractures - multifragmentary -
 - A2.1: detachment of the lesser trochanter
 - A2.2: several intermediate fragments including the lesser trochanter
 - A2.3: several intermediate fragments extending more than 1 cm distal to the lesser trochanter
- 31-A3: fractures - fracture line through the lateral femoral wall, anatomically defined as the lateral femoral cortex distal to the greater trochanter



AO CLASSIFICATION

FIRST AID

- Pain relief
- Immobilisation of limb (splintage including hip, knee and ankle to minimize movements at fracture site during transport)

RADIOGRAPHS

- X ray pelvis with bilateral hips- AP
- Involved hip with thigh – AP and lateral

OPERATIVE MANAGEMENT

- The mainstay of treatment is fixation with a dynamic hip screw (DHS) or proximal femoral Intramedullary nail
- Stable FRACTURE -intact posteromedial cortex- Association of osteosynthesis (Ao) type A1 and A2.1 -DHS
- Unstable FRACTURE - broken posteromedial cortex- Association of osteosynthesis (Ao) type A3 & A2.2 & A2.3 - Proximal femoral Intramedullary nail



31-A2



Dynamic Hip screw with plating post operative Xray



31-A3



Proximal femoral nail A2 Post operative Xray

ARTHROPLASTY - INDICATIONS (RARE)

- Revision for failed internal fixation
- Associated pre-existing severe hip arthritis
- Severely osteoporotic bone that is unlikely to hold internal fixation

Red flag signs

Excessive Bruising/hematoma or any distal neurovascular deficit

Nonoperative treatment to be considered in patients with severe comorbidities not fit for surgery understanding high risks of pneumonia, urinary tract infection, decubitus ulcers, deep vein thrombosis and mortality

ABBREVIATIONS

ADL: Activities of Daily Living

AP: Antero - posterior

DHS: Dynamic Hip Screw

RTA: Road Traffic Accident

REFERENCES

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3. Kane P, Vopat B, Paller D, Korupolu S, Daniels AH, Born C. A biomechanical comparison of locked and unlocked long cephalomedullary nails in a stable intertrochanteric fracture model. J Orthop Trauma. 2014 Dec;28(12):715-20. doi: 10.1097/BOT.000000000000165. PMID: 24978941; PMCID: PMC4573403.

👉 EARLY SURGERY DECREASE COMPLICATIONS AND MORTALITY

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