

PERIPROSTHETIC FRACTURE

In Periprosthetic fractures, there are 80% chances that prosthesis is loose

More common in

1. Female sex
2. Osteopenic bone
3. Conditions that cause impaired balance:
 - Parkinsonism
 - Seizure disorders
4. Malaligned prosthesis
 - Eccentric reaming
 - Varus stem placement
5. Old fracture or Paget's
6. Revision total hip replacement

Why increase fracture in revision?

1. Quality of bone
2. Osteolysis
3. Stress shield with cementless
4. Misdirected prosthesis: fracture during cement removal or distal reaming
 - Eccentric stem
5. Failure to take all cement and misdirected stem
6. Fracture during dislocation or reduction
7. Cortical window and stress

Vancouver classification

Type A: Involve the trochanteric region(GT/LT):

AL: Lesser trochanter: Non-operative

AG: Greater trochanter: Fix when unstable



Type B: Fracture around the stem

B1: Implant well fixed

: Long oblique

Zimmer or Dall Miles fixation

Onlay graft & wiring

Transverse/ short oblique

Biplanar fixation

B2: Implant loose and adequate bone stock

Revision and long THR



B3: Implant loose, bone stock inadequate:

Revision with distal fixation devise



Type C: Distal to the stem

Ignore the implant, fix fracture.

Plate and screws or Rod



TREATMENT

1. Fixation according to site and loosening
2. Nonsurgical treatment [Traction treatment]
May be suitable for patients with medical complications
3. When Revision considered, make sure hip is not infected. Aspirate to rule out infection
4. Cementless in revision: is better. Distal part of the prosthesis should have at least 4 cm distal or twice diameter of the canal.
5. Healing with ORIF [Mayo clinic] 85% and 33% present later with loosening

Complications

Loosening
Infection
Fixation failure

