SUMMARY

Pediatric Hip Fracture

And Dislocation

Pediatric hip fractures include femoral neck fractures and acetabular fractures.

Femoral neck fractures:

Femoral neck fractures in children are a rare event as indicated by the scanty case reports in the literatures. It has been estimated that the incidence of children's hip fracture is less than 1% of adult hip fractures.

Classification:

These fractures are classified according to anatomic situation into four types:

1. Type I or Transepiphyseal fracture.
2. Type II or Transcervical fracture.
3. Type III or Cervicotrochanteric fracture.
4. Type IV or Intertrochanteric fracture.

Diagnosis:

***Clinical*:** There is a history of trauma, followed by feeling of sudden pain, tenderness and swelling of the hip. The limb is held in varying degree of

external rotation and slight adduction, with true shortening of about 1 – 2cms.

Radiologically:

The diagnosis is confirmed by the use of X – ray that must be done in two views.

Treatment:

Various methods of treatment had been advocated, and because it is a difficult fracture, different opinions were recorded about the best lines of treatment.

1- In transepiphyseal fracture:

Immobilization in one and half spica cast or internal fixation. Or closed reduction, internal fixation and application of one and half spica cast for about 8 – 10 weeks.

2- In transcervical fractures:

Include internal fixation after closed or open reduction.

3- In cervico – trochanteric fractures:

Immobilized in abduction spica cast or internal fixation.

4- In inter – trochanteric fractures:

They are best treated by skin or skeletal traction to be followed by abduction spica cast.

Complications:

1- Avascular necrosis:

This constitutes the most dangerous complication.

2- Coxa vara:

It is a common complication being developed due to malreduction or premature epiphyseal fusion.

3- Delay union and non – union.

4- Premature epiphyseal fusion:

Other complications may occur as wound infection, septic arthritis, degenerative arthritis and fibrous ankylosis but these later complications are rare.

Pediatric Acetabular fractures:

- A cetabular fractures are rare in the pediatric population.
- Most injuries in children occur as a result of high energy trauma such as motor vehicle accidents or fall from a height.
- The low incidence in children is related to their increased joint elasticity, thicker cartilage and stronger ligaments.

- The diagnosis is established on plain radiographs. The degree of displacement and presence of intra articular, if suspected are confirmed on CT.
- Treatment is typically conservative management consists of bed rest or non – Weight bearing with traction for 4 to 6 weeks.
- Open reduction and internal fixation are indicated in cases of displacement for more than 2mm, unstable fractures or presence of bone fragments in the joint space.
- One potential complication is the development of early – onset degenerative disease of the hip, although the risk of this complication minimized by acceptance of one more than 1 to 2 mm of displacement postoperatively.

Traumatic hip dislocations:

- Uncommon injury, but more common than femoral neck fractures in children
- Usually posterior
- Less commonly associated with fractures than adults
- Results better than in adults
- Still potential for osteonecrosis and poor outcome
- Osteonecrosis rate may be decreased by prompt reduction
- 8-10% incidence after dislocation in skeletally immature
- Delay in reduction, high energy mechanism, and older age are risk factors