Fractures of shaft Tibia-fibula

- Commonest # in young adult (RTA)
- Majority of Tibia # are open fracture as tibia is a subcutaneous bone with minimal soft tissue coverage over anterior aspect
- Fibula # is almost always associated

Mechanism of injury:
1. Direct impact : RTA
2. Indirect : fall from height

Clinical features:
- Pain, Swelling & deformity
- Inability to weight bear over the limb
- Bony Tenderness
- Bony Crepitus
- Abnormal mobility
- Loss of transmitted movement

Investigations:
1. Plain x-ray of the leg; AP and lateral view
**Treatment:**

**Closed Fracture shaft tibia**
- Undisplaced
  - Above knee cast × 6 weeks
- Displaced fracture
  - Closed reduction
    - Acceptable
      - PTB** cast × 6-10 weeks
    - Not Acceptable
      - CRIF by intramedullary interlocking nail

**Open Fracture shaft tibia**
- 1. Debridement of wound
- 2. Further management of wound by SSG/FLAP
- 3. Fracture management:
  a) Type 1 #
     - CR and cast application. Wound management via window dressing
     - OR
     - CRIF by interlocking nail
  b) Type 2 #
     - Internal fixation by interlocking nail
  c) Type 3
     - External fixator application

**PTB**- Patellar tendon bearing cast

Suggestions/queries @ vivekortho@yahoo.co.in
Complications:

1. Compartment syndrome
2. Injury to major vessels and nerves
3. Skin loss
4. Infection
5. Non-union: common with lower 1/3rd fractures
6. Mal-union
7. Delayed union

**Fracture fibula**

- Isolated # of shaft fibula are rare
- In combined fractures of tibia-fibula, Tibia fracture is fixed whereas fracture fibula is often ignored unless it is close to the ankle mortise (within 5 cm) when it is also fixed along with tibia fracture.

C/F:
- Tenderness present over # site
- Painful weight bearing

Treatment:

Non weight bearing for 3 weeks followed by partial weight bearing and later full weight bearing.

Lower 1/3rd #s are prone for non-union due to
1. Poor vascularity of lower end of tibia
2. Minimal soft tissue coverage of tibia in lower 1/3rd