

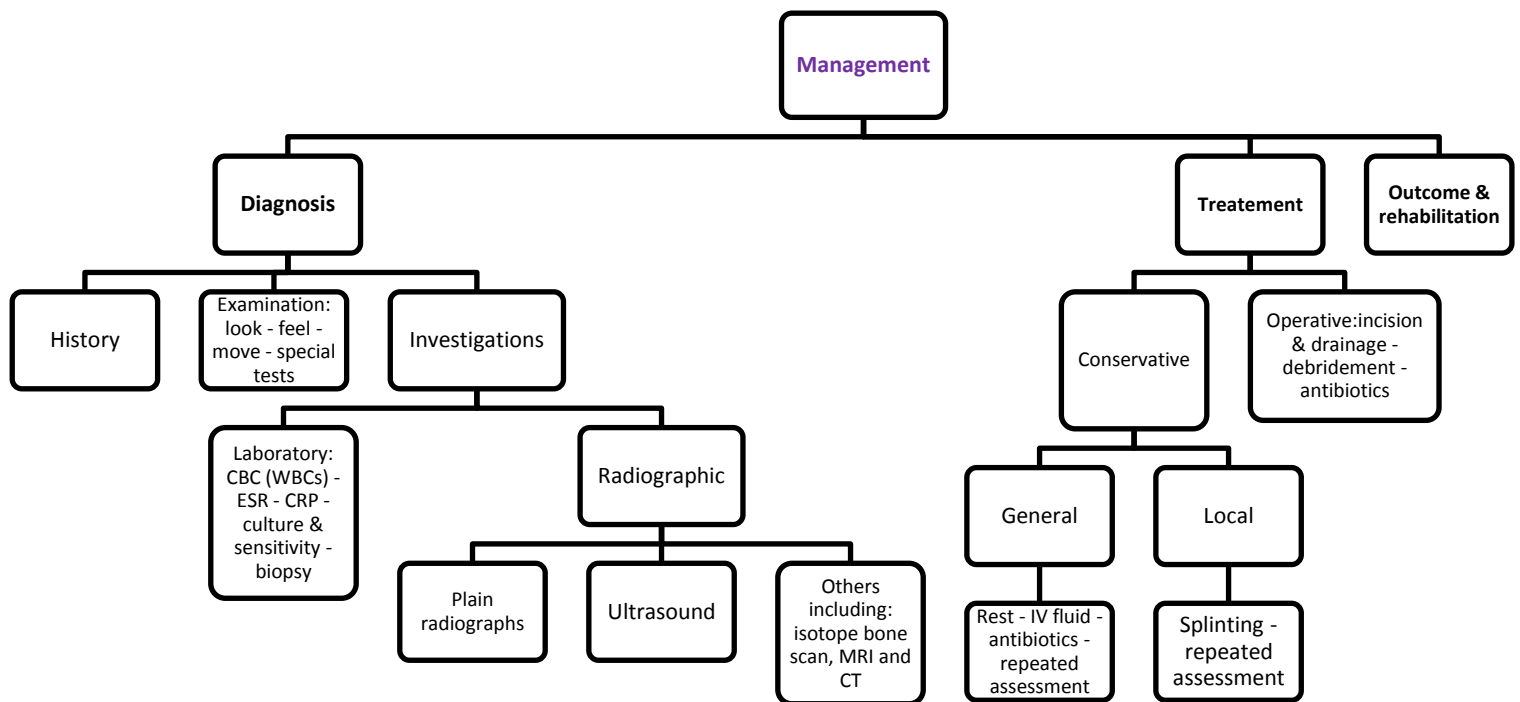
- **There are 3 components in an infection:**

- The organisms which are considered as invaders with weapons.
- The body which is considered as a defender with weapons (the immune system).
- Tissue (bones & joints) which are considered as the battle ground.

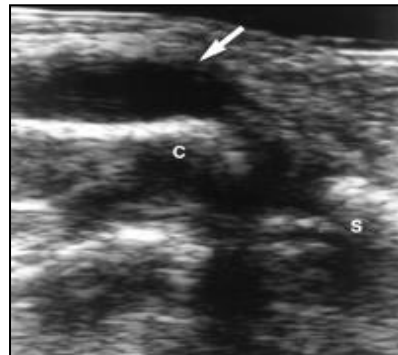
- **How does infection occur?**

- **Endogenous (hematogenous):** the organism is transmitted to the target tissue via blood.
- **Exogenous:** which can be through:
 - ✓ Adjacent infection (skin abscess).
 - ✓ Open fracture.
 - ✓ Operation.

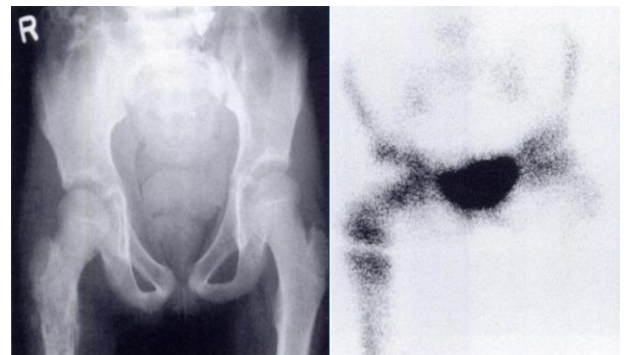
- **In infections of bone and joints:** bone damage will occur with dead, injured & living cells from all sides. The most important characteristic for pyogenic osteomyelitis is pus formation (subperiosteal abscess).



Plain radiograph in which you can see swollen tissue in the thumb with some extent of bone destruction



Ultrasound: the arrow points to an area with abscess. Ultrasound can be used as a guide during abscess drainage



Isotope bone scan showing osteomyelitis in the right femur.

- **Antibiotics:** will be given for six wks from the day the clinical picture is improving and settling down.
- **How do you know that clinical picture is settling down?**
 - **Diagnosis by:** history, examination and investigations.