Septic Arthritis

SEPTIC ARTHRITIS

- Septic arthritis is a painful infection in a joint .
- Joints become infected by direct injury or by blood-borne infection from an infected skin lesion or other site.

EPIDEMIOLOGY

- The incidence of definite and probable septic arthritis in Western Europe is 4–10 per 100 000 patient-years per year.
- The rising global incidence of this condition has been linked with an ageing population, increased immunosuppressive use, musculoskeletal prostheses and surgical procedures.

SEPTIC ARTHRITIS

- The organism that most commonly causes septic arthritis is **Staphylococcus aureus**.
- Other organisms include streptococci, other species of staphylococcus, Neisseria gonorrhoeae,Haemophilus influenzae in children, and these and other Gram-negative organisms in the elderly or complicating RA.

SEPTIC ARTHRITIS

Common in;

- Immunocompromized
- Diabetics
- IV drug abusers
- Rheumatoid arthritis

SEPTIC ARTHRITIS

- Common sites
- Hip joint in neonates
- Knee joints in children and adults
- In 10%- more than 1 joint involved
- Causes
- Due to direct trauma (penetrating)
- Due to hematogenous spread

CLINICAL FEATURES

- In young and previously fit people, the joint is hot, red, swollen and agonizingly painful; it is held immobile by muscle spasm.
- In contrast, the onset may be insidious with a lack of systemic symptoms; in the elderly, immunosuppressed and patients with RA, a high index of suspicion is needed.

CLINICAL FEATURES

- Fever in some cases.
- In 20% of patients, the sepsis affects more than one joint. Chronic destructive arthritis due to tuberculosis is rare.

INVESTIGATIONS

- Aspirate the joint and send the fluid for urgent Gram-staining and culture(with ABST).
- The fluid is usually frankly purulent. The culture techniques should include those for gonococci and anaerobes.
- Blood cultures are often positive.

INVESTIGATIONS

- Leucocytosis is usual, unless the person is severely immunosuppressed.
- X-rays are of no value in diagnosis in acute septic arthritis.
- Skin wound swabs, sputum and throat swab or urine may be positive and indicate the source of infection.

MANAGEMENT

- Suspected septic arthritis is a **medical emergency.**
- Therapy should be started immediately before culture results are available because joint destruction may occur within weeks.

MANAGEMENT

- The joint should be immobilized initially, followed by early physiotherapy to prevent stiffness and muscle wasting.

MANAGEMENT

- Intravenous antibiotics should be given for **1–2 weeks**. It is usual to give **two** antibiotics to which the organism is sensitive for 6 weeks, then one for a further 6 weeks, orally. Response is monitored clinically and with **ESR** and **CRP**.

EMPIRICAL TREATMENT IN SEPTIC ARTHRITIS

- Empirical regimens include intravenous flucloxacillin 2 g given 6-hourly, plus sodium fusidate 500 mg orally 8-hourly.
- If the patient is allergic to penicillin, replace flucloxacillin with erythromycin 1 g i.v. 6-hourly or clindamycin 600 mg i.v. 8-hourly.

EMPIRICAL TREATMENT IN SEPTIC ARTHRITIS

- In immunosuppressed patients, flucloxacillin 1–2 g i.v. 6-hourly plus gentamicin (to cover Gram-negative organisms) should be used.
- Teicoplanin i.v. should replace flucloxacillin if meticillin-resistant Staphylococcus aureus (MRSA) is likely.

TREATMENT IN SEPTIC ARTHRITIS

- Change the antibiotics if the organism is not sensitive.
- Drainage of the joint and arthroscopic joint washouts are helpful in relieving pain.