

Microbiology - 7 - summary

* septic Arthritis *

↳ inflammatory Reaction of the joint space

↳ hard to treat prosthetic joints

↳ Etiology →

1- Streptococci / 2- S.A → commonest

3- N. gonorrhoea → commonest cause in sexually Active young Adult

4- P. Arginosa → Sternoclavicular joints + sacroiliac joints

↳ Presentation →

Acute = with 3 month subacute = 3-24 month Chronic more than 24 month.

↳ Risk factors →

RA, skin infection, intra-articular corticosteroid infection, PM

↳ Pathogenesis →

hematogenous spread, contiguous spread + direct inoculation
weak immunity (SLE, RA)

↳ Gonococcal Arthritis → less influx of WBC

↳ S.A → bind to collagen + elastic + prosthetic material + sialoprotein

↳ Clinical Feature →

- monoarticular involvement, most commonly in the knee then hip
- swelling + ↓ ~~mobility~~ mobility
- polyarticular in patient who have RA + viral causes

↳ Dx →

- ↑ WCC - Aspiration → show purulent synovial fluid + ↑ neutrophils
- microscopy for crystals one positive in 75% cases

↳ Imaging →

- CT scan, MRI, ultrasound / CT better imaging

↳ Management →

- ① Drainage
- ② open surgery drainage in recurrent drainage
- ③ Remove prosthetic joint

↳ Antimicrobial therapy →

- tozebactam - piperacillin ± vancomycin
- short duration corticosteroid treatment.

Microbiology - 7 - Summary final.

* Necrotizing myositis *

- Pathogen → *S. pyogenes* [GAS] , association with severe sys. toxicity
- Note → Basically is a Necrotizing Fasciitis type 2
- ↳ can effect surrounding Fascia without effect the ms.
- ↳

* Pyomyositis *

- def:- pus forming infection of the ms, due to S.A (usually)
- most common in → Tropical Area
- pathogen → MRSA producing the PVL toxin
- this disease remains localized and shock doesn't developed unless organisms produce →
- ↳ 1- Toxic shock syndrome toxin 1
- ↳ 2- Enterotoxin (S.A)
- spread → hematogenous

Seen more in → thigh, calf, gluteal ms

Multifocal infection occurs in up to 20% of cases

Complication → Bacteremia lead to Endocarditis

- Clinical Stages → stage 1 :- early invasive stage
- ↳ local pain + leucocytosis may present
- stage 2 :- suppurative stage → Abscess Formation
- ↳ (10-21) days after symptoms
- stage 3 :- systemic stage → Rhabdomyolysis
- ↳ Fluctant ms + S.A complication

- Dx :- CT Scan , Ultrasound

- MRI → Gold Standard

- Microbiology → aspiration + culturing

Management

- ↳ First stage → ABx
- ↳ stage 2 + 3 → ABx + Drainage → due to presence of Abscess.
- ↳ due to MRSA → Flucloxacillin or Vancomycin
- ↳ For immuno compromised → Border ABx → piperacillin - tazobactam with/without Vancomycin
- ↳ Drainage → Percutaneous drainage For Dx + Rx