

The acute hot joint

Definition: ONE joint is swollen
painful
red
hot



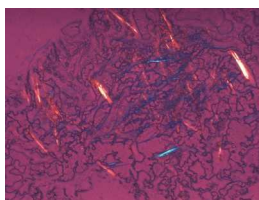
Differential diagnosis:

Trauma	Is there a bleeding disorder? Could there be a fracture?
Crystals	Urate (gout) or pyrophosphate (pseudogout) May be a history of previous episodes May produce a fever
Infection	Often staphylococcal Are there other septic signs (eg lymphangitis) or obvious source, eg pneumonia, urinary tract infection, abscess, foot ulcer Immunosuppression? eg RA from treatment, or AIDS Could a replaced joint be infected?
Inflammation	PH food poisoning, STD (unusual to be one joint only, but possible); palindromic RA (previous episodes possible)
Reaction	Is this local cellulitis with a sympathetic effusion?

Immediate management:

Joint aspiration is **essential**; miss an infection and joint destruction is rapid. Very little fluid is required, so even a small joint may provide enough for an answer. Be prepared to take syringe and needle to the lab; a culture can be made simply from a needle tip smear.

Talk to the lab; these investigations are **urgent**. Send the fluid off for



Crystals	Remember: crystal arthritis can produce all the signs of infection— high WBC in joint and blood, even a fever
gram stain	(insert picture)

culture An immediate answer may be forthcoming
 (insert picture)
WBC (insert picture)

Approach **Microbiology** to ask if you can send a specimen for polarised light microscopy.

If **you can't get fluid** get an orthopaedic surgeon or rheumatologist to assist.

Other tests should include

FBC	Look for the WBC
Blood culture	Will take a while, so arrange admission
X-ray	To look for fractures, osteomyelitis, chondrocalcinosis (which might suggest pseudogout)

Further management:

Depends on the diagnosis

Crystal arthritis	Aspirate as much fluid as possible High dose NSAIDs Colchicine	Often the removal of the fluid will relieve the symptoms considerably Consider gastroprotection
Septic arthritis	Aspirate as much as possible Start IV antibiotics in A&E: as organism is usually a staph, consider flucloxacillin and fusidic acid Keep patient nil by mouth	Consider whether an antibiotic for gram -ve organisms should be added/substituted Surgeons may consider washout in theatre
Trauma	Admit Aspirate as much as possible If bleeding disorder present, advise haematologist Splint to immobilise	
Inflammation	NSAIDs	May then discharge Consider injecting steroid, but not until infection has been excluded
Diagnosis unclear	Admit	Under rheumatologist or orthopaedic surgeon

Special rules apply to **children**. It's best to get the orthopaedic or paediatric team to see quickly as joint damage from infection can be rapid and devastating (and hip aspiration is not easy)