Rheumatology on the acute medical unit

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I have no conflicts of interest to declare
75 yr old man ‘off legs’

- Sent home yesterday with ?UTI
- Usually ‘not bad’
  - lives alone, all ADLs, walks ½ mile to pub
- PMH: TIA, rheumatoid arthritis, ↑BP
- DH: Ramipril, Aspirin, Statin
On examination

- Temp 37.4
- Neurologically nil of note except mildly confused
- Unable to mobilise therefore referred to medics
- Joints didn’t seem ‘active‘ except for effusion right knee
• Urine: nitrite neg, blood + nil else
• WCC 10, CRP 80 all else normal
What else do you want to know?
• Patient was on Humira (adalimumab) s/c every fortnight (anti-TNF therapy)
• Went into multiorgan failure
• Died on ITU 2 weeks later
Modern RA therapy

• Early intensive treatment
  – Improved QOL, more still working at 4 yrs
  – Reduced mortality

• Combination therapy
  – methotrexate foundation +/- hydroxychloroquine or sulphasalazine

• Earlier use of biologics
  • After failure of 2 drugs used for 6 months
Biological therapies used to treat inflammatory arthritis

• Tumour necrosis factor (TNF) inhibitors
  – etanercept (Enbrel™)
  – adalimumab (Humira™)
  – certilizumab (Cimzia ™)
  – golimumab (Symponi ™)
  – infliximab (Remicade™)

• Rituximab (B-cell depletion – anti-CD20)
• Tocilizumab (anti IL-6 receptor therapy)
• Abatacept (T-cell costimulator modulator)
Question 1:
For which disease is anti-TNF therapy **not** licensed in the UK

1. Ankylosing spondylitis
2. Psoriatic arthritis
3. SLE
4. Rheumatoid arthritis
5. Crohns disease related sacroiliitis
Question 1
For which disease is anti-TNF therapy **not** licensed in the UK?

**ANSWER**

3. SLE
Licensed indications for biologics in rheumatology

- Rheumatoid arthritis
- Psoriatic arthritis
- Spondyloarthritis
Learning points

• Patients with inflammatory arthritis: find out what they are on for their arthritis
• Patients on biologic therapy: may have atypical presentation with infection.
• Patients on tocilizumab may have a normal CRP with sepsis
• Septic arthritis has a mortality of 10-15%
Case 2
56 yr old woman with stable RA

- On methotrexate and hydroxychloroquine for last 8yrs

- Seen in A&E
  - Fever, unwell
  - Bloods normal except for crp 22
  - Treated for dipstick +ve UTI
• Initial improvement
• Then admitted one week later with high fever
• Bloods
  – WCC 1.1
  – Neutrophils 0.5
  – Platelets 91
  – Hb 8.2
What is the cause of the neutropenia?
Learning point

• Methotrexate is a folate antagonist and so avoid trimethoprim as a treatment for UTI
Diagnosis of 3 Questions

• Is it inflammatory?

• What is the distribution of joints involved?

• Are there any other ‘extra-articular’ clues to the diagnosis
Joint distribution

- Mono/oligo arthritis
  (<5 joints)

- +/- spinal involvement

- Polyarthritis
54 yr old woman ?DVT

- Referred by GP for USS ?DVT
- Negative doppler but ?ruptured popliteal cyst
- History: painful swollen knee prior to calf pain
- Stiff for 1hr each morning, low back, knees, feet
- Further examination.......
Question 2
Dactylitis is associated with

1. Post-salmonella arthritis
2. Rheumatoid arthritis
3. Sjogrens syndrome
4. Pseudogout
5. Joint hypermobility syndrome
Question 2
Dactylitis is associated with

**ANSWER**
1. Post Salmonella arthritis
Causes of dactylitis

• HLA-B27 related spondylo-arthropathies
  – Ankylosing spondylitis
  – Psoriatic
  – Reactive
  – IBD related (‘enteropathic’)
• Sarcoid
• Sickle cell disease
Patterns of disease in spondyloarthritis
  eg psoriasis, UC/Crohn's, Post GU/GI infection, AS

- Axial
  - +/- pauciarticular inflammatory arthritis

- Peripheral
  - Enthesitis
  - Dactylitis
  - Inflammatory (poly)arthritis
Learning point

- Look for dactylitis as it narrows the differential significantly
Knee effusion and this rash?
Circinate balanitis
Question 3
Erythema nodosum is commonly associated with

1. Sacroiliitis
2. A symmetrical polyarthritis
3. Distal interphalangeal joint arthritis
4. Bilateral ankle synovitis
5. Syndesmophytes on imaging of the spine
Question 3

Erythema nodosum is commonly associated with

ANSWER

4. Bilateral ankle synovitis
69 yr old man

• Background: Ankylosing Spondylitis
• A&E: 5/9/2010
  – h/o fall 3/7 ago, lower back pain
• O/E: No focal neurology, Tender L 4-5
• X-ray: No fracture- Referred to medical team for pain control
• PTWR:
  – Formal reporting of x-ray to exclude fracture
  – No fracture reported
• 14/9/2010 Discharged to NH for respite as pt still had pain
• Readmitted on 24/10/2010 with paraplegia
• Readmitted on 24/10/2010 with paraplegia

• Urgent MRI:
  – ‘compression of the spinal cord at T11/12
  – ?discitis at this level
Imaging
Displacement of vertebrae following hyperextension injury
Learning point

• Patients with ankylosing spondylitis and any form of spinal trauma should have imaging with CT or MRI as they are at high risk of vertebral column fracture
Summary

- In patients with IA, find out what they are on.
- Avoid trimethoprim in patients on MTX.
- In IA, first work out joint distribution, then look for ‘clues’: skin, GU, GI, eyes.
- In patients with Ank Spond and spinal trauma go straight for CT or MRI.
Thankyou