Greenlane Medical Specialists (GLMS)

CME

Rheumatology cases Sept 2023

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Case 1
Mrs N

- 70 year old European female
- Presents late 2022, with 1 year history of joint pains - hands, wrists, shoulders later involved
- Began after a mechanical fall, she fractured some ribs
- Fatigue
- Early morning stiffness lasting 3 to 4 hours
- Gradual difficulty managing household tasks
- No change in bowel habit
- No rashes
- No weight loss, B symptoms

Past medical history

- Hypertension
- L) TKJR 2017
- Investigation of raised D-Dimer ~10000 (<700) -unclear cause

Medications

- Hydroxychloroquine (started 2 months ago)
- Felodipine
- Losartan
- Dabigatran
- Zopiclone prn
- Paracode

Social history

- Retired nurse
- Usually very active, swims, goes to gym
- Non smoker
- Drinks 1 to 2 bottles wine per week

- No family history of RA or psoariasis or malignancies

Examination

- Looks well
- Bilateral wrist swelling and tenderness
- Swelling bilateral MCPjs
- Multiple tender and swollen PIPj, unable to make full fists
- PIPj and DIPj have bony swelling suggestive of underlying OA
- Both shoulders have normal ROM
- Subtle effusion in both knees, left knee has been replaced
- OA changes both feet, puffy and positive MTP squeeze
- Cardiorespiratory exam unremarkable
- No lymphandenopathy

Investigations

- Anti-CCP and RhF and ANA negative
- CRP 6 to 28
- Normocytic anaemia
- Normal renal and liver functions
- Raised D Dimer -negative CTPA and bilateral LL USS
- Negative myeloma screen
- Xray both hands and wrists showed OA with severe OA at the index DIP, 1st CMC with some erosive changes

Seronegative Rheumatoid Arthritis

With underlying hand osteoarthritis

- Prednisone 10mg daily
- Methotrexate 20mg weekly and folic acid.
- She’s had some reassuring investigations recently
- **Returned 3 months later** with some improvement of symptoms but complained of neck pains but her hands remained to be most symptomatic
  - Examination - synovitis MCP and wrists, mild effusion in the knees, C spine movement tender on all directions with no neurology. Mild ankle swelling
  - CRP 9 to 28, thrombocytosis
  - Add sulphasalazine 1g BD
  - C spine imagings - multilevel spondylosis with facet joint arthrosis
  - Up to triple DMARDs at this point (methotrexate, sulphasalazine, hydroxychloroquine)

Returned 2 months later

- Returned for an earlier review
- I contacted her because of drop in sodium to 125
- She was as lethargic but otherwise alert and stable, no confusion
- Sore neck, but improvement in her hands
- No neurological symptoms
- Reports to be thirsty, with increase in fluid intake
- Examination - JVP 2+, cardiorespiratory exam unremarkable, no peripheral oedema
  - C spine movements sore in all directions, no neurology, no spinal tenderness
  - MCPs and wrists remained swollen (less) but non tender
  - CRP increased to 29, normal WCC, thrombocytosis

- Referred for C spine MRI
- Advised fluid restriction
- 3 days later, repeat Na 133
- C spine MRI - soft tissue oedema and bone marrow oedema at the right atlantoaxial joint, multilevel degenerative disc disease, facet joint arthritis, mild compressive myelopathy C5/6 with narrowing of the neuroforamina. CT C spine was recommended to assess the osseous structure at the atlanto-axial level
- CT C spine - showing active synovitis with severe joint space narrowing and erosions compatible with active RA. No features of osteomyelitis or septic arthritis. Extensive erosions throughout bilateral cervical facet joints

Ongoing management

- Increased prednisone to 20mg
- Added leflunomide
  - Methotrexate 20mg weekly, folic acid 5mg weekly
  - Sulphasalazine 1g BD
  - Hydroxychloroquine 200mg BD

  - a week later improvement of CRP 11, fluctuate 8 to 14

3 months later...

- Ongoing fatigue
- Breathless in the last 3 months, generally anxious
- Lost some weight when reduced ETOH intake
- Hands are no longer sore, EMS 10 minutes
- Neck remains most symptomatic, some headaches (improved significantly during higher dose of prednisone)
- ETT and TTE normal
- Colonoscopy 2 months ago - no abnormalities
- SCC removed
- Reduction in ETOH
  - Hand synovitis minimal
  - C spine movement tender in most directions
  - CRP 10, normocytic anaemia Hb 98

Excluding paraneoplastic process

- CT chest/abdo/pelvis
  - No lymphandenopathy
  - No skeletal lesions
  - No organomegaly
  - Serum protein electrophoresis- IgG kappa paraprotein, paraprotein 8g/L
    - Mildly low IgA
    - Serum free light chains - abnormal ratio, raised IgG kappa light chains

Haematologist review

- Whole body STIR MRI - no evidence of myeloma/plasmacytoma
- CRP 5
- MGUS vs Myeloma
- ? Bone marrow biopsy

- Progress
  - Ongoing puffiness of her MCPs but non tender joints
  - C spine is still tender on movement but improved
  - Increase Leflunomide to 20mg and reduction of Sulphasalazine

Discussion and Questions...

- Heterogeneity of seronegative RA
  - Variable inflammatory burden (fatigue, thrombocytosis, raised D-Dimer)
  - Erosive vs non-erosive
  - Other mimics...paraneoplastic presentations, vasculitis, atypical infections
- Inflammatory diseases
  - Impact on cardiovascular disease with equivalent risk of being diabetic
- Immune suppression
  - Importance of monitoring

Case 2
Mrs A

- 73 year old European female
- Presents with 2-3 months history of pain in the shoulders. Started unilaterally and then involving the opposite side over weeks
- Gradual difficulty lifting her arms
- Knees, hands and feet became sore without swelling
- Associated early morning stiffness
- No headaches or jaw symptoms
- Saw her GP and initial CRP was 24, rightfully started on 15mg prednisone with marked improvement of symptoms
  - On reduction, at 7.5mg of prednisone, increase in symptoms, remained on 9mg

Past medical history

- Hyperlipidaemia
- Bilateral hip joint replacement

- Atorvastatin
- Cholecalciferol

Social history

- Working as a counsellor
- Non smoker
- Occasional ETOH

- No family history of RA

- Examination was unremarkable besides OA changes on the index finger, no joint synovitis

Investigations

- Anti-CCP 30 (<5)
- Rheumatoid factor 43 (<16)
- Initial CRP 24
- Normal FBC, liver and renal function

Impression and plan:

- Likely PMR
- Advised gradual wean of prednisone
- Noting that CCP and RhF levels are slightly elevated
- Repeat CRP - 3
- Referred her for xrays of hands and knees

3 months later...

- Patient reports to be asymptomatic until developing a UTI recently
- Off prednisone completely
- After completion of abx, developed increase in symptoms in the shoulders, hands, feet, and knees and EMS
- Restarted on 5mg of prednisone
- Examination - OA changes on DIP and PIPj, mild puffiness of the MCPj
- Repeat CRP - 34, no further UTI symptoms , MSU clear
- Plan to increase prednisone 7.5mg (pt preference), initial plan to increase to 10mg)
- Monthly tests

2 months later...

- CRP returned 24
- Contacted pt, ongoing symptoms in the shoulders, hands and feet
- Waking at night with pain
- She increased prednisone to 10mg and felt better but got worse when dose went down to 9mg
- Discussion on use of Methotrexate (8 months on prednisone)
  - Not keen, so prednisone increase to 15mg, (she was keen to reduce this faster)

1 month later

- CRP 38, on prednisone 12mg daily
- Earlier review, knuckles started to swell, ongoing pain in the feet, knees. Not much pain in the shoulders
- No weight loss
- Frustrated
- Reluctance in Methotrexate
- Discussion side effects of prednisone - mild immune suppression, bone loss, cataract, skin thinning
  - She had normal BMD 9/2022
- Eventually started on Methotrexate, currently on 5mg of prednisone

PMR vs Seropositive RA

- Evolution of disease
- Methotrexate as a DMARD and steroid sparing agent
  - Allow reduction in prednisone use
- Atypical PMRs, is it real???
  - Paraneoplastic mimics (urological malignancies)
  - Young age
  - Non responsiveness to prednisone
  - Low inflammatory markers (influenced by BMI)

Thank you for your attention

Questions and comments pls