

### Case

- 64 y.o. male
  - Upper neck & suboccipitals
  - Onset 8 yrs ago for no apparent reason
  - Episodic & fluctuates in severity
  - Overall getting worse & more persistent
- 6/10 at worse
- "Sore" & "deep pressure" w/ stiffness
  - Worse in the morning & gets bit easier w/ movement / activity after approx. 1hr

**AF:** Inactivity

**RF:** NSAIDs partially improve the pain (paracetamol doesn't help)

### Extras

- Kidney stones
- Currently awaiting hospital investigation for a chronic cough & recurrent bronchitis
- Ibuprofen for current complaint
- Atorvastatin 20mg/day (preventative)
- Sometimes wakes due to pain when it's worst
- Early in the morning (around 4-5am)
- Mother: hypertension from 40 y.o., died from a stroke at 72 y.o.
- Father: died from MI at 65 y.o.
- Brother: hypertension @ 55 y.o.; survived MI @ 60 y.o.
- Imaging revealed RA in hands but no complains of Sx

### Physical Examination Findings

**BMI:** 26.8

- **Pulse:** 80

- **BP:** R - 140/78; L - 138/80

### Posture / stance

- Upper crossed w/ anterior head carriage

### Reflexes

- DTRs UL & LL all 3+ bilaterally
- Flexor plantar response

### ROM

- **AROM Cx:** all mildly restricted & painful @ end range
- **Gentle PROM:** w/ no overpressure as AROM

### TTP

- **Upper Cx:** U traps, suboccipital & scalenes TTP w/ no referral B

**Supine Cx motion palpation:** little less stiff than seated

- **Palpation:** mid - lower Tx spine stiff but no pain
- **Mild oedema R ankle:** non pitting, no pain; no other obvious abnormality observed in extremities

### Clinical tests

- **Cx specialists:** no provocation
- **Wall angel test:** failed

### Discussion

### Working diagnosis

- Rheumatoid arthritis (RA)
- Most probable cause of inflammatory neck pain in pts' of this age (& also due to it being most common inflammatory arthropathy i.e. prior probability)
- Links w/ non-pitting swelling at the ankle & the respiratory Sx

### Why is this an unusual case?

- Presents w/ neck Sx & denied any Sx in the hands & feet
- Typically involvement of the spine occurs yrs after the onset of Sx in the **distal extremities**

### Differentials to be considered

- Lung cancer for the respiratory symptoms: based on being a past heavy smoker

### Oedema

- **Pitting**: cardiovascular
- **Non-pitting**: joint inflammation or infection

## Learning outcomes

### Rheumatoid arthritis

- Chronic systemic inflammatory disease
- Pt w/ RA have an **increased** risk of developing **heart disease**
- Usually affects **distal** extremities, **bilaterally & symmetrically**
- Associated w/ increased risk of CVD disease, osteoporosis, anaemia & infection
- Peak onset **30-50** y.o.
- Associated w/ **anaemia**

#### **Presentations:**

- **Symmetrical synovitis** of small joints of **distal** extremities
- Pain, swelling, heat & stiffness in affected joints
- Pain worse at **rest/inactivity**
- **Swelling** around affected joint
- Early **morning stiffness**, lasting **1+**
- Bumps/**nodules** under skin (rheumatoid nodules)

#### **Diagnosis:**

- No set tests in primary care
- **Blood tests** & x-ray to confirm: C-reactive protein, rheumatoid factor, ESR
- Inability to make a  **fist/flex** fingers
- Other inflammatory presentations
- Family Hx of RA

### DON'T LET INVESTIGATIONS DELAY REFERRAL FOR SUSPECTED RA

#### **Management:**

- NSAIDs until rheumatological appt.
- During flare ups: rest
- During remission: exercise
- Low-impact activities in remission periods
- Referral to GP
- Exercises for enhancing joint flexibility, muscle strength & managing other functional impairments



### Learning outcomes (cont)

#### How to identify inflammatory arthropathy, how to refer & what the further investigations & management would be?

**Identifying:**

- Medical Hx & physical exam
- Key features: joint pain, swelling & stiffness; distal extremity joint affected; usually bilateral & symmetrical; worse in morning (improves throughout day); fatigue, malaise, other **systemic** symptoms; family Hx of inflammatory arthritis

**How to refer?**

- **Urgent** referral
- Written letter to GP for further referral to rheumatologist for investigations

**Further investigations:**

- Blood tests: rheumatoid factor - C-reactive protein
- X-ray

**Management:**

- NSAIDs
- Glucocorticoids
- Encourage regular exercise in remission periods, rest w/ flare ups
- Exercises for enhancing joint flexibility, muscle strength & managing other functional impairments

#### Modify physical examinations according to risk

- **Avoid Cx manipulation:** RA can damage transverse ligament in Cx
- **Gentle joint mobility** testing
- **Postural analysis:** address misalignment or bracing posture (take breaks as needed or adjust position to suit pt)
- **Neurological testing** (e.g. sensory/reflex): may be difficult to perform, modify/remove altogether if not clinically relevant to pt
- Adjust **duration & intensity** of treatment to suit pt

#### Identify risk factors for cardiovascular disease

- Rheumatoid arthritis (RA)
- Increasing age: especially after 55 (F) & 45 (M)
- Gender: males at higher risk
- Family Hx: of heart attacks, strokes, angina
- Hypertension
- Cholesterol levels: High LDL, low HDL
- Smoking
- Diabetes: due to damage to blood vessels & increased inflammation in body
- Obesity/sedentary lifestyle: contribute to high BP, cholesterol, diabetes
- Stress: increase BP & contribute to inflammation

