Rheumatoid arthritis

1/3 stop work within 2 yrs even with treatment.

10% acute onset.
20% sub acute onset.
70% insidious onset.

References:
1. Rheumatology consultant lecture, Nov 2016.
2. Autoimmune conditions lecture, RCGP, June 2017
3. BMJ Webinar Sept 2017.
4. Dr Mary Gayed Rheumatology consultant HEFT Mar 2018.
5. Dr Louise Warburton PULSE Sept 2020
6. Dr Sanjev Patel rheumatologist consultant, webinar Feb 2021.

Symptoms

- 6/52 of symeterical arthritis.
- Early morning stiffness for over 1 hr.
- Improves with activity.
- MCP, PIP or wrist affected in 90%. Does not involve DIP joints (but can have OA in those joints).
- At least one swollen joint (synovitis).
- Diffuse swelling on dorsum of hand.

- In morning they can't make a fist and or use their hands first thing in the morning.
- In OA they have few min of stiffness, or until they have a cup of tea, but then it goes away i.e. < 20 min.

- If no swollen joint, then its not RA
- They want to see pt's with swollen joints. Even if one joint, as the others might only be seen on USS.
- Boggy soft tissue swelling around the joint.
- If entire finger swollen = dactalytis (? psoriatic arthritis).
- In OA the swellings are bony, and are in DIP, PIP, thumb.

- Fatigue.
- Wt loss.

Investigations

Physical

- Squeeze test (MCP or foot).
- Form a tight fist test.
- Prayer/phalens test.

- Anyone with even mild arthritis will not be able to cover their fingernails when they make a fist.

- If able to do, then not too much inflamatory activity in the wrist.

Bloods

- UEs, LFTs
- Lipids
- FBC
- ESR, CRP
- RF
- Anti CCP
- ANA

- Baseline for organ function and for decision making in drug selection.

- Inflammatory conditions ↑ risk of CV events.
- Also important if end up on JAK inhibitor.

- Normocytic, normochromic anaemia

- ESR/CRP may be normal in small joint disease.
- ESR can be raised in old age.
- Low grade increase can be seen in OA.

- Is +ve in 60-90%, but often not in early disease.
- If >50 is classed as significant, and has >26 fold greater risk of developing RA.
- Note: 5% of normal population are +ve.
- False +ve if liver, infection, myeloma, lymphoma, sjogrens syndrome.

- Even if only borderline positive, take it seriously.

- Remember even if bloods are -ve, it could still be seronegative inflammatory arthritis that needs DMARDS.
- So refer if clinically it is inflammatory arthritis.

RF	Anti CCP	Probability for RA
+	+	Very likely
-	+	Very likely
+	+	Very likely
-	-	Likely
-	-	Possible

Think of alternatives by asking 5 questions:
1) Any psoriasis or FHx.
2) Pain in alternating buttocks.
3) Inflammed tendon going into bone.
4) Gout in gt toe.
5) Recent infection.

- Tennis elbow.
- Plantar faciitis.
- Achilles tendon.

* 2o care might end up testing following, but possibly a little too forward thinking for 1o care to do???
- Hepatitis, HIV, TB (for latent infections).

ANA:
- Present in 21% of general population.
- ↑ with age and asian or afrocaribean ethnicities.
- Titre of 1:160 and above can be significant if appropriate clinical context.
- Titre is the dilution at which the ANA is still visible.
- The higher the titre value = means even when you dilute it a lot and it's still positive (visible).

Homogenous pattern	SLE
Speckled pattern	SLE, SS, Sjogrens, polymositis
Peripheral pattern	SLE, SS
Nucleosis pattern	SS, polymositis

- ENA is performed if significantly +ve ANA.
- Can show various different antibodies to nuclear proteins which are linked with specific connective tissue disease:
Anti Sm = SLE
Anti SSA = Sjogrens
Anti SSB = Sjogrens
Anti Scl-70 = Systemic Sclerosis
Anti Jo-1 = Polymyositis

- ANCA is more related to vasculitis.
- cANCA (PR3) = Wegeners.
- pANCA (MPO) = Microscopic polyangilitis, glomerulonephritis.

Imaging

- Xray affected hand/feet.
- Xray may be normal in early disease.
- Looking for periarticular osteopenia

- CXR.
- Baseline for checking for any inflammation, and for 2o care decision making in drug selection.

USS

Score

ACR/EULAR score

JOINT DISTRIBUTION (0-5)	
1 large joint	0
2-10 large joints	1
1-3 small joints (large joints not counted)	2
4-10 small joints (large joints not counted)	3
>10 joints (at least one small joint)	5
SEROLOGY (0-3)	
Negative RF AND negative ACPA	0
Low positive RF OR low positive ACPA	2
High positive RF OR high positive ACPA	3
SYMPTOM DURATION (0-1)	
<6 weeks	0
≥6 weeks	1
ACUTE PHASE REACTANTS (0-1)	
Normal CRP AND normal ESR	0
Abnormal CRP OR abnormal ESR	1

- Low positive, means a low titre result.
- i.e. more than the upper limit of normal, but less than 3 times the upper limit of normal.

- High positive, means a high titre result.
- i.e. more than 3 times the upper limit of normal.

≥ 6

Refer to early diagnosis rheumatology clinic

Management

NSAIDs

- Avoid prescribing steroids before referring to rheumatology.
- It can cause difficulties in them diagnosing the disease due to the positive effect of the steroids.
- Use NSAIDs and the pt should be seen quickly by rheumatology.

- If however, there will be a significant delay in seeing the rheumatologist, can give depomedrone IM 80-120mg STAT dose.
- D/w rheumatologist on call if in doubt.

Refer

- Refer to early diagnosis rheumatology clinic.
- They want to see in clinic, even if just one joint has pain, swelling and stiffness.
- Request all the bloods and imaging but refer even before you have results.
- There is a 12/52 window from presentation to starting DMARDS which significantly reduces disease progression.
- Only 1 in 3 in the clinic will have RA. So there is expected to be referrals which will be -ve.
- RA clinic will do USS to see if other joints affected, if they only have one joint affected. Has 80% pick up rate.
- Once diagnosed, pt will get a review on a monthly basis for 6/12.

- Medications include:
- Steroid injections.
- Methotrexate.
- Hydroxychloroquine.
- Biologics.

- Since they are immunosupressants, have a lower threshold to treat suspected infections.
- And if not responding consider d/w rheumatology.
- Consider atypical infections.
- ↑ risk of skin cancer.
- ↑ lipids (so monitor).

Flare up post diagnosis

- Beaware of pt's getting into a cycle of getting pain (not a flare up of inflammatory arthritis) and asking for repeated courses of steroids.
- If disease was well controlled and it's a one off flare issue short course of pred.
- However, if it's out of control/unstable, they should contact their rheumatology clinic/nurse along with the pred.

- 10mg OD for 1/52
THEN
- 5mg OD for 1/52
THEN
- Stop.

- OR can do 15mg, 10mg, 5mg, stop.

Infections while on DMARDs

- If your treating an infection (e.g. chest, UTI etc), omit the DMARD while treating.
- Will do no harm missing a weeks worth of treatment.
- This is most important for methotrexate.
- Less important for sulfasalazine, as it is less potent.

CV risk factors

- RA is a systemic inflammatory condition so treat CV risk factors e.g. BMI, BP, lipids etc.

Osteoprosis

? is osteoporosis risk only if use pred or if have RA in general?

Pregnancy

- If planning pregnancy, refer back to rheumatology.
- They can use sulfasalazine and hydroxychloroquine.