Red Whale

In association with VERSUS ARTHRITIS

Inflammatory arthritis: early diagnosis

Mrs Jones has just walked in, concerned that she has painful joints in her hands and some morning stiffness. The challenge is to work out whether this is inflammatory or, more likely, osteoarthritis.

Inflammatory arthritis is aggressively managed, and early detection and treatment is imperative because it reduces the risk of permanent joint damage, persistent pain and disability.

In this article, we consider how we can best find these patients from the much larger pool of patients with osteoarthritis and the aches and pains of everyday life. A BMJ review that considered inflammatory arthritis as a whole helps us to do this (BMJ 2017;358:j3248).

You may also find the separate articles on *Rheumatoid arthritis* and *Spondyloarthritis* helpful.

National audit of NICE quality standards

Early diagnosis of inflammatory arthritis is a national level priority supported by the RCGP. A national audit performed in 2015–16 showed that we are not currently achieving all the quality standards set out in the NICE guidelines on rheumatoid arthritis. The answer to everything is always stated to be 'raising awareness in primary care'; however, I suspect this is a reflection of system-wide issues.

For example:

- Only 17% of patients with suspected inflammatory arthritis were referred within 3 working days of presentation (*were we all waiting for blood results?*).
- Only 38% were seen in rheumatology within 3w.

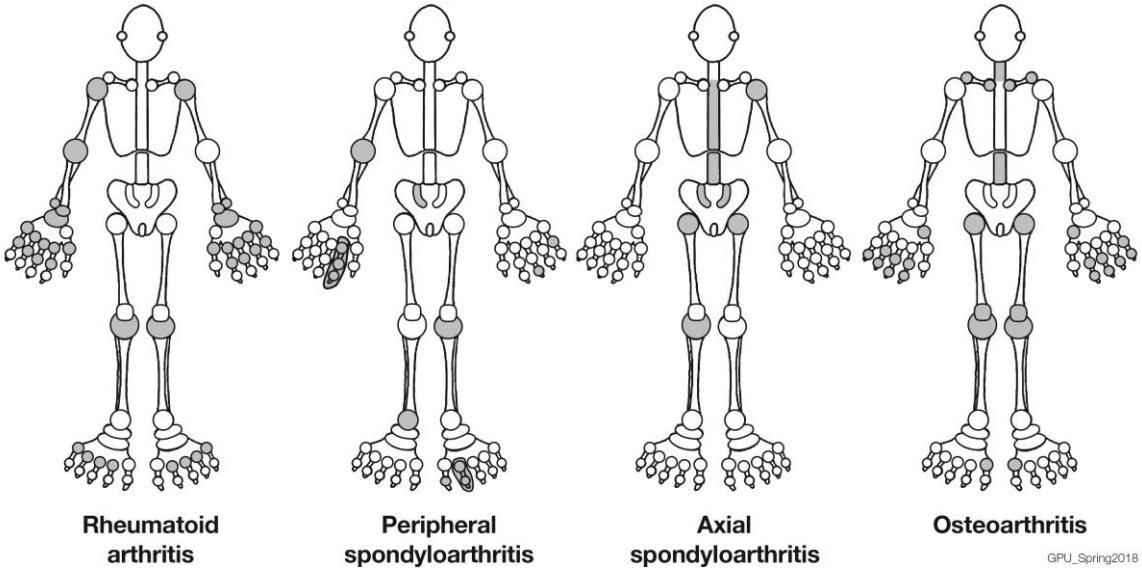
The key issue is that patients are waiting too long for referral and diagnosis.

Patterns of presentation

Inflammatory joint pain tends to be:

- Acute or subacute onset.
- Worse with rest and improved by exercise.
- Nights disturbed with pain.
- Morning stiffness lasting >30–60min.
- Systemic symptoms may be present, particularly fatigue.
- Soft, boggy swelling around joints (synovitis).

A picture speaks 1000 words, and these diagrams illustrate the most common patterns of joint involvement seen in arthritis (reproduced with kind permission of Arthritis UK).



This table illustrates common and specific features for each of the three main groups of inflammatory arthritis.

Rheumatoid arthritis	Peripheral spondyloarthritis	Axial spondyloarthritis
• Symmetrical. • Typically hands and feet. • Older people may present with polymyalgia-like symptoms and large joint involvement. • Associated autoimmune conditions: o Thyroid disease. o Inflammatory lung disease. o Sicca syndrome. o Scleritis.	• Asymmetrical large joint involvement. • Small joints may be involved, especially DIPs. • Associated conditions: o Psoriasis. o Inflammatory bowel. o GI or GU infection.	• Inflammatory back pain. • Rapid response to NSAIDs.
–	Other conditions that increase likelihood: • Iritis. • Dactylitis. • Unexplained enthesitis (e.g. Achilles tendonitis, plantar fasciitis).	
• Fatigue. • Positive family history.		

Referral

- Refer any patients with suspected inflammatory arthritis to rheumatology as soon as you suspect it. NICE says this should be done within 3 working days.
- Make it clear in the referral letter that the suspected diagnosis is inflammatory arthritis (*this is particularly important because, in many areas, these referrals go through a triage hub*).
- Organise tests while they wait for an appointment and send on the results.
- **There is no test that will rule out inflammatory arthritis**. Inflammatory markers, rheumatoid factor, anti-CCP and HLA-B27 can all be normal.
- However, results of investigations do help to guide initial treatment decisions, so are worthwhile performing.
- Do NOT prescribe steroids while the patient is waiting because this can make a definitive diagnosis more difficult. NSAIDs can be given. (*However, if your patient is really struggling, as some do, speak to the rheumatologist on call – they may be able to expedite the appointment or recommend a steroid regimen to hold matters*).

This article states that UK patients can be seen within 12–48h – that has not been the Red Whale team's general experience!

Investigations

The following might be a typical set of investigations carried out to assess joint pain, but a **negative result in any of these investigations does not rule out inflammatory arthritis:**

- FBC.
- ESR.
- CRP.
- Rheumatoid factor.
- Anti-CCP (if you have access).
- Baseline U&E, LFT and bone biochemistry are also useful.
- HLA-B27 may be helpful to rule in borderline cases of spondyloarthritis: see *Spondyloarthritis* article for NICE guidance on this.

The BMJ article states that plain radiographs are not necessary – most rheumatology units have same-day access to these if they feel they are warranted. Ultrasound may be useful in early stages and is available in most early arthritis clinics.

Evidence for early referral and treatment

There is a large body of evidence supporting early treatment of inflammatory arthritis, particularly rheumatoid, with DMARDs. Treatment commenced within the 'three-month window of opportunity':

- Improves function.
- Reduces disability.
- Reduces long-term joint damage.

Evidence also supports 'treating to target' which involves frequent review and escalation of treatment, aiming for complete remission, i.e. no symptoms, normal bloods, no clinical synovitis on examination. For this reason, many patients end up on several DMARD agents early in their disease course. This approach allows complete remission in about 65% of patients.

The need for joint replacement surgery in patients with rheumatoid arthritis is declining by about 5% per year at present. It is postulated that 'normalising inflammation' may also reduce the associated cardiovascular risk, though this is not yet evidenced in terms of important endpoints.

Long-term prognosis

Historically, patients with rheumatoid arthritis had a reduced life expectancy of about 5–7 years. More recent data suggests that aggressive early treatment may normalise this, and that modern cohorts may have no excess mortality.

	**Multiple joint pain and inflammatory arthritis** • This is a common presentation in general practice. • In primary care, the diagnosis can be made clinically – refer on suspicion. • 'Time is joint': refer patients with suspected inflammatory disease. Do not wait for test results, but request while waiting.
	There are many helpful patient support groups including: www.versusarthritis.org www.nras.org.uk (National Rheumatoid Arthritis Society) www.nass.co.uk (National Ankylosing Spondylitis Society) www.papaa.org (Psoriasis and Psoriatic Arthritis Alliance)