

Hands On

Practical advice on management of rheumatic disease



PSORIATIC ARTHRITIS ITS PRESENTATION AND MANAGEMENT IN PRIMARY CARE

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EDITORIAL

Psoriasis is a common disease and presents to primary care frequently. Its management can be problematic and patients find the treatments unpleasant. Psoriatic arthritis is a poorly-understood co-morbidity. In my experience physicians from general practitioners to orthopaedic surgeons do not recognise the presenting features of psoriatic arthritis, and I often see patients who are referred to my musculoskeletal clinic with joint pain and swelling who have psoriasis, but the link between the two conditions has not been made.

Within specialist rheumatology there has traditionally been a reluctance to treat psoriatic arthritis aggressively. Only recently has it been understood that the pathological processes in psoriatic arthritis can be just as destructive as in rheumatoid arthritis and that patients are subject to an increase in cardiovascular morbidity. I think we need to become more vigilant as primary care practitioners and refer patients who have psoriasis and are presenting with joint pain and swelling straight on to specialist care.

Philip Helliwell is a recognised authority on psoriatic arthritis and spondyloarthropathies and trained as a GP before becoming a rheumatologist. He shows a clarity of thought and expression which is the result of his dual training. He describes eloquently those features of the disease which are likely to be presenting symptoms and signs in primary care and instructs us how to diagnose and manage these patients.

Louise Warburton

Introduction

Psoriatic arthritis is a multifaceted articular disorder usually, although not exclusively, associated with psoriasis. It is important to recognise psoriatic arthritis because, untreated, it can cause long-term joint damage and disability with impact on quality of life. As there are shared genetics, pathophysiology and co-morbidities, psoriasis and psoriatic arthritis have been collectively termed 'psoriatic disease'.

How common is psoriatic arthritis?

The prevalence of psoriasis in the UK is about 2%. The prevalence of psoriatic arthritis within this population is about 14%. This figure may be an underestimate as psoriasis can go unrecognised, especially if it is in 'hidden' areas such as behind the ears, the hairline and the natal cleft (Figure 1). In addition, in about 15% of people the arthritis starts before the psoriasis and may for that period of time be mislabelled. Finally, as revealed by ultrasound examination of tendons (see below), many people with psoriasis also have (asymptomatic) abnormalities usually seen in psoriatic arthritis.

Clinical features

A number of characteristic clinical features are seen in this disorder.

- Psoriatic arthritis on the whole involves fewer joints than rheumatoid arthritis although the same joints may be involved (e.g. small joints of the hand – see Figure 2). However, it is not uncommon to see just one or two joints involved in this condition (Figure 3).
- Enthesitis is inflammation at the attachment of tendons and ligaments to bone. The major enthesis of the body is at the Achilles insertion, and this is commonly involved in psoriatic arthritis (note this is at the insertion and not the tendon itself – see Figure 4). There are literally hundreds of entheses in the body, however, and this may



FIGURE 1. Psoriasis of the natal cleft.*

FIGURE 2. Psoriatic arthritis affecting the metacarpophalangeal and proximal interphalangeal joints, hence mimicking rheumatoid arthritis.*

FIGURE 3. There may be very few joints affected in psoriatic arthritis.*

FIGURE 4. Enthesitis of the Achilles tendon.*

FIGURE 5. Dactylitis of the second and third toes.

FIGURE 6. Distal interphalangeal disease with nail involvement, the latter cleverly (partly) concealed by nail varnish.

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explain why some people present with widespread pain unrelated to joints (e.g. around the chest wall and spine).

- Dactylitis is defined as uniform swelling of a digit and is also described as a ‘sausage’ finger or toe (Figure 5). This may occur in isolation or along with inflammation in other areas. It is an adverse prognostic sign in this disease.
- Spondylitis may resemble ankylosing spondylitis. Patients present with inflammatory back pain (insidious onset, nocturnal pain, early morning stiffness, improved with exercise and worsened by rest) and buttock pain (due to sacroiliitis). Spondylitis may be asymptomatic in as many as 30% of patients with psoriatic arthritis.
- Inflammation of distal interphalangeal joints is characteristic, especially in the presence of nail disease (Figure 6). This may be indistinguishable from osteoarthritis except that it may occur in young men and in the absence of signs of osteoarthritis elsewhere.

How to diagnose psoriatic arthritis – what are the key features?

Articular complaints are common in the general population, increasing as age advances. People with psoriasis are no exception but the possibility of psoriatic arthritis should be kept in mind if patients present with musculoskeletal complaints. As a guide a screening questionnaire has been developed which includes only 5 questions and a manikin¹ (Figure 7). This instrument has a sensitivity of 92% and a specificity of 75% in people with psoriasis. People presenting with dactylitis and enthesitis at major sites are easier to spot, as are those presenting with generalised articular complaints. Inflammatory back pain may be present and the presence of distal interphalangeal joint inflammation/enlargement in a young person is suggestive. A raised acute-phase reactant – erythrocyte sedimentation rate (ESR), plasma viscosity (PV) or C-reactive protein (CRP) – is suggestive of inflammatory arthritis. Rheumatoid factor is usually negative. If characteristic clinical features are present but no psoriasis evident (remember the ‘hidden’ areas have to be examined to be sure disease is not present; most patients find this either amusing or invasive or both) it is worth seeking a previous personal or family history of psoriasis, as these conditions are *highly* genetic.

It is worth noting that a recent community survey of people with psoriasis found undiagnosed psoriatic arthritis in about 14% and the average disease duration was 10 years, so it was not all recent-onset arthritis. People have to consult to be diagnosed, of course, but it is worth keeping a high index of suspicion in people with psoriasis presenting with musculoskeletal complaints.

Natural history and prognosis

About a third of patients with psoriatic arthritis have oligo-articular, non-progressive disease and can be treated symptomatically or with intermittent intra-articular injections of steroids. However, it is identifying this group at an early stage that is the crux. Adverse prognostic signs at presentation include polyarticular disease, previous steroid use (for any

PEST screening questionnaire

Score 1 point for each question answered in the affirmative. A total score of 3 or more is indicative of psoriatic arthritis (sensitivity 0.92, specificity 0.78, positive predictive value 0.61, negative predictive value 0.95).

- Have you ever had a swollen joint (or joints)?
- Has a doctor ever told you that you have arthritis?
- Do your fingernails or toenails have holes or pits?
- Have you had pain in your heel?
- Have you had a finger or toe that was completely swollen and painful for no apparent reason?

In the drawing below, please tick the joints that have caused you discomfort (i.e. stiff, swollen or painful joints).

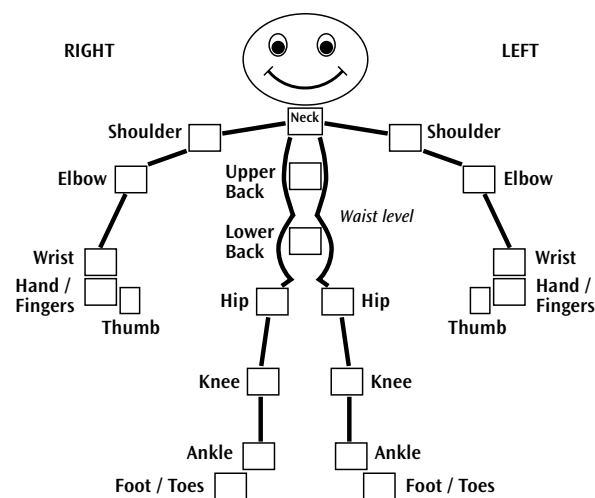


FIGURE 7. The Psoriasis Epidemiology Study (PEST) screening questionnaire for psoriatic arthritis. (Reproduced from Ibrahim G et al, *Clin Exp Rheumatol*, in press 2009, Fig 3, with permission.)

reason), male sex and a raised inflammatory marker such as the ESR or CRP. In this larger progressive group joint destruction will occur with time such that after 10 years significant impact on disability and quality of life will occur. In about 5% of people a rapidly advancing and destructive form of arthritis occurs with the end result being arthritis mutilans (Figure 8). Mortality is increased in psoriatic disease with an increased prevalence of the metabolic syndrome and cardiovascular disease. For this reason identification and treatment of the usual risk factors for cardiovascular disease (obesity, smoking, hypertension, cholesterol) is important. People with psoriatic disease are also more likely to have liver abnormalities independent of alcohol use – this makes treatment with traditional agents such as methotrexate problematic, although not impossible.

When to refer and who to refer to

If any of the above clinical features are present then a referral to a rheumatologist is indicated. Any swollen joint in the presence of psoriasis is an indication for referral. Sometimes generalised pain or recurrent enthesitis (e.g. bilateral tennis elbow) may be the presenting feature. The foot is an

important source of pathology in this disease so podiatrists should be familiar with dactylitis and enthesitis or combinations of the two. Since joint destruction is a function of time it is important to refer patients early, as with other inflammatory rheumatic diseases. No specific radiology or blood tests are necessary prior to referral, although if the acute-phase response (ESR, PV or CRP) is elevated it indicates a worse prognosis. If your local hospital runs combined rheumatology–dermatology clinics then it would be appropriate to refer to this service, particularly in the presence of skin disease. However, this is an increasing rarity as joint clinics are discouraged for financial reasons.

Treatment

It is fair to say that psoriatic arthritis has lagged behind other rheumatic diseases in terms of good clinical trial evidence, but the situation is changing rapidly. There has been an explosion in the number of publications on this condition in the last 10 years, fuelled by the new biologic therapies. This has caused a spin-off of interest in these disorders in both laboratory and clinical science. However, there is still a lot to be done. We still do not know which patients to target for early intensive treatment and we do not have good evidence for many of the treatments we use, including methotrexate. But it is now possible to find international treatment recommendations for psoriatic arthritis² and there are National Institute for Health and Clinical Excellence (NICE) criteria for the use of biologic drugs such as anti-tumour necrosis factor (TNF)³ – see below.

The ideal treatment for a patient with this disease will help both the skin and the joints and will be a convenient, and preferably infrequent, regime. This sounds far-fetched but the new biologic drugs can fulfil this role so it is not hard to see why patients are so keen to start them. On the whole people hate covering themselves with greasy, sometimes smelly, unguents every day and a pill or injection that does the same job is much more attractive. Of the traditional



FIGURE 8. Severe mutilation in psoriatic arthritis. Although a mutilating form of arthritis can be seen in rheumatoid arthritis, a distinctive form of mutilation is seen very occasionally in psoriatic arthritis. This severe mutilating arthritis is characterised by widespread digital deformity and the presence of flail digits with redundant folds of skin. (Reproduced from Mease PJ, Helliwell PS (ed), *Atlas of psoriatic arthritis*, © Springer-Verlag 2008, Fig 3.6a, with kind permission of Springer Science+Business Media.)

disease-modifying anti-inflammatory drugs (DMARDs) methotrexate is the one that can work for both aspects of the disease, although ciclosporin and azathioprine have been used in the past for the joints and are still used for the skin, particularly ciclosporin. Combination therapy with ciclosporin and methotrexate is sometimes used for added effectiveness. It is also worth making the point that although 100% of the skin may be affected by psoriasis, once treatment is successful that person will have virtually normal-looking skin again – there is very little scarring or lasting damage. Conversely, joint inflammation can cause lasting damage to the cartilage and bone – the former does not have the regenerative capacity of skin. This may explain why dermatologists are more likely to give ‘pulses’ of therapy and rheumatologists continuous therapy for this disease.

A simple algorithm for treating psoriatic arthritis is illustrated in Figure 9. This approach was developed by an international group committed to furthering the investigation and treatment of psoriatic disease.⁴ For each aspect of the disease a hierarchy of treatment is followed, working from above downwards. Sometimes this will be the same drug for different aspects of the disease – happily so for the patient, as indicated above. Many patients can be successfully treated with symptomatic therapy alone, probably about one-third of those with the disease. For example, someone with oligoarticular disease affecting a knee could be managed successfully by intermittent intra-articular steroid injections. To be absolutely sure that the right treatment is given to the right patient specialist advice is recommended.

Clearly, the biologic drugs (mainly anti-TNF) are drugs of ‘last resort’ after all else has failed and thus are usually given to the most severe cases. However, it is worth noting that this disease can remain oligoarticular and the NICE guidelines for use of anti-TNF in psoriatic arthritis require only three tender and swollen joints (they can be the same joint) and failure of at least two conventional DMARDs.³ This is a fair reflection of the impact of the disease as oligoarticular disease can be particularly disabling – persistent dactylitis in the index finger of the dominant hand can interfere with most daily and work activities and enthesitis at the Achilles insertion can make normal walking impossible.

It should also be remembered that this is a multifaceted disease that crosses specialist boundaries. The ideal specialist scenario for treating this condition is in combined rheumatology–dermatology clinics so that assessment and appropriate targeted therapy can be discussed. This also saves the patients duplicate appointments for what is essentially the same disease – important when so many patients are young and still working.

How to monitor the progress of the disease

The aims of treatment are to prevent joint damage and the associated disability. Damage can occur insidiously and most rheumatologists will attempt to watch out for this

Note: Injection for dactylitis and enthesitis indicates injection of corticosteroid. For dactylitis the injection is placed into the tendon sheath, or joint, or both. For enthesitis the injection is placed at the enthesis, such as would be given for lateral epicondylitis.

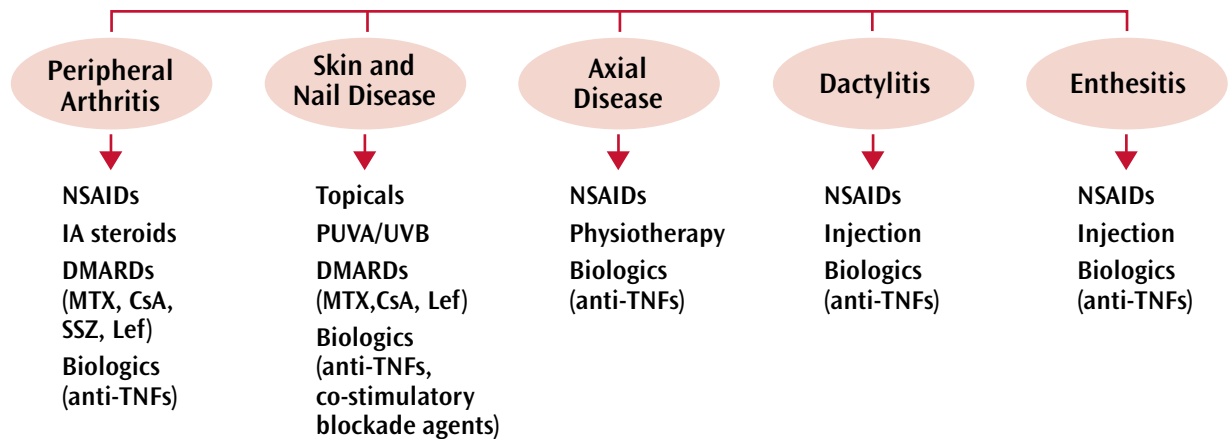


FIGURE 9. Treatment algorithm for psoriatic arthritis. (Adapted from Kavanaugh AF, Ritchlin CT, *J Rheumatol* 2006;33(7):1417-21, Fig 1, with permission.)

CsA ciclosporin; DMARD disease-modifying anti-rheumatic drug; IA intra-articular; Lef leflunomide; MTX methotrexate; NSAID non-steroidal anti-inflammatory drug; PUVA psoralen plus ultraviolet light A; SSZ sulfasalazine; TNF tumour necrosis factor; UVB ultraviolet light B

by both physical examination and imaging, usually plain radiography. However, x-ray change occurs slowly so radiographs would not usually be repeated more frequently than annually. As an elevated acute-phase response may predict those who progress radiologically a measure of this will also be checked regularly. It may also be necessary to monitor the effects (and side-effects) of DMARDs such as methotrexate, sulfasalazine, ciclosporin and leflunomide. Shared-care guidelines are available nationally although many localities adapt these for their own use.⁵ Some secondary care clinics will also monitor the impact of the disease by employing questionnaires to assess function and quality of life. In psoriatic disease these can be affected by both the skin and the

joint disease. Indeed, one study showed that although peripheral joint damage was significantly less in psoriatic arthritis than in rheumatoid arthritis, the reduction in function and quality of life experienced by people with psoriatic arthritis was equivalent to that of the rheumatoid arthritis group.⁶

All DMARDs should be used with caution in women of child-bearing age. Methotrexate and leflunomide in particular should be discontinued well before conception. People on DMARDs and biologic drugs should have annual influenza vaccination and pneumococcal vaccine is also recommended for this group.

KEY PRACTICE POINTS

- **Psoriatic arthritis occurs in approximately 14% of people with psoriasis**
- **Two-thirds of people with psoriatic arthritis have progressive, damaging arthritis. Anyone with psoriasis and at least one inflamed joint should be referred for specialist opinion**
- **Conventional DMARDs such as methotrexate are effective and biologic drugs work very well. People on DMARDs require annual influenza vaccination and pneumococcal vaccine**
- **There is an increased cardiovascular morbidity and a higher prevalence of the metabolic syndrome so the associated risk factors (hypertension, obesity, hypercholesterolaemia and smoking) should be addressed**

Conclusion

Psoriatic arthritis is a complex heterogeneous disease which is often unrecognised. Two-thirds of people will develop joint destruction and disability with reduced quality of life. Early recognition and treatment may prevent these complications.

Further reading

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