The management of osteoarthritis and rheumatoid arthritis

**Authors** Jane Tadman, is press officer, Arthritis Research Campaign (ARC); Jackie Hill, PhD, MPhil, RGN, FRCN, is ARC senior lecturer in rheumatology nursing and co-director of the academic and clinical unit for musculoskeletal nursing, University of Leeds.


The scale of arthritis is often underestimated as the term covers about 200 different diseases. The two most common conditions are osteoarthritis and rheumatoid arthritis. Nurses’ pivotal role in the care of patients with arthritis requires a combination of knowledge, understanding and expertise.

Arthritis is a generic term meaning inflammation of a joint. The term covers about 200 different diseases. There are a host of inflammatory conditions including:

- Rheumatoid arthritis – an inflammatory autoimmune condition;
- Psoriatic arthritis – inflammatory arthritis with psoriasis;
- Ankylosing spondylitis – inflammatory disease affecting the axial skeleton;
- Scleroderma – a condition affecting the body’s connective tissues;
- Osteoporosis – the bone-thinning condition;
- Myositis and polymyalgia rheumatica – inflammatory muscle conditions.

The two most common conditions are osteoarthritis, affecting well over two million people, and rheumatoid arthritis, affecting over 350,000 people. Although the pathology and aetiology of these conditions are very different, there are some similarities in their treatment.

**Osteoarthritis**

For many years osteoarthritis was thought to be an inevitable part of the ageing process, but in the past 20 years it has been accepted as a degenerative joint disease. It is difficult to treat effectively because it can be present for 30 years before symptoms appear. In the final stages of the disease the cartilage in the joint wears away and the bones rub together causing pain, stiffness and reduced function.

Who is susceptible?

The biggest risk factor for developing osteoarthritis is longevity. Sixty per cent of people over 64 have moderate to severe osteoarthritis in at least one joint and nearly one in five women over the age of 60 are affected (Arthritis Research Campaign, 2002). Other major risk factors include being overweight and having a previous joint injury.

**How is osteoarthritis treated?**

The usual way to treat the condition is self-management. Programmes such as ‘Expert Patients’ can help patients manage the condition. For those who are overweight, weight loss reduces stress on joints such as hips and knees. Strengthening exercises build up muscles supporting the joints, and regular aerobic exercise is of benefit.

Analgesics such as paracetamol and non-steroidal anti-inflammatory drugs (NSAIDs) assist pain control and steroid injections into the affected joints are useful. Severely damaged joints may need replacing to alleviate the pain.

Few of the supplements taken to alleviate the pain of osteoarthritis have scientific evidence supporting their efficacy. However, glucosamine sulphate (Reginster et al, 2001) and cod liver oil may bring some relief to those with less severe osteoarthritis.

**Rheumatoid arthritis**

Rheumatoid arthritis is a chronic, inflammatory, autoimmune condition affecting the synovial joints. Symptoms include painful swollen joints, stiffness, fatigue, feelings of general illness and depression.

Rheumatoid arthritis can also cause problems outside the joint, called extra articular features (Table 1), as well as involving internal organs such as the heart and lungs (Hill and Hale, 2004). These cumulative problems can lead to disability within 20 years of onset of the disease (Buckley, 1997). Patients with rheumatoid arthritis have a reduced life expectancy equal to those with diseases such as malignancy and coronary artery disease (Pincus, 1995).

Who is susceptible?

Rheumatoid arthritis affects more women than men at a ratio of 3:1 (Arthritis Research Campaign, 2002) and the average age of onset is 30 to 50. The cause is unknown, but the following factors are thought to be implicated:

- Genetic predisposition;
- Reproduction and hormones;
- Environment.

**Table 1. Extra Articular Features of Rheumatoid Arthritis**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anaemia</td>
<td>Nerve compression</td>
</tr>
<tr>
<td>Felty’s syndrome</td>
<td>Osteopenia</td>
</tr>
<tr>
<td>Hepatomegaly</td>
<td>Rheumatoid nodules</td>
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<tr>
<td>Lymphadenopathy</td>
<td>Sjögren’s syndrome</td>
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<tr>
<td>Muscle wasting</td>
<td>Vasculitis</td>
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How is rheumatoid arthritis treated?

As with osteoarthritis there is no cure and self-management, exercise and joint protection are important elements of care. Drug treatments include analgesics and NSAIDs and patients are often prescribed a disease-modifying antirheumatic drug (DMARD) to put the disease into remission. DMARDs have improved enormously over the past few years. Methotrexate is now the drug of choice, although sulfasalazine is still used. Intramuscular steroids and low-dose oral steroids also have a place. However, the most important new treatments are the biologic anti-tumour necrosis factor (anti-TNF) therapies such as etanercept, infliximab, and adalimumab. These drugs are used for severe, refractory rheumatoid arthritis and are taken by more than 7,000 people in the UK. They improve quality of life and have a 70 per cent success rate.

Developments in arthritis treatment

NSAIDs

The cyclo-oxygenase-2 selective inhibitor NSAID rofecoxib was withdrawn in September 2004 after studies showed taking the drug for 18 months or more could cause fatal heart attack and stroke (Merck, 2004). The European Medicines Evaluation Agency is reviewing long-term data on the cardiovascular safety of other COX-2 inhibitors such as celecoxib, etoricoxib, parecoxib, valdecoxib and the licensed, but yet to be launched, lumiracoxib. These are used for severe, refractory rheumatoid arthritis and osteoarthritis, indeed they are taken by one-half of all patients with osteoarthritis. However, a recent study has shown they are of limited use in the long-term treatment of osteoarthritic knee pain (Bjordal et al, 2004).

In the light of this, NSAIDs and COX-2 inhibitors could take a sharp dip in popularity. Paracetamol may even make a comeback, although this too has its drawbacks.

Biologics

New developments in the treatment of rheumatoid arthritis are likely to come from a new generation of anti-TNF therapies, and from the licensing of the new B-cell depleting therapy, rituximab. The prospect of anti-TNF therapy being used in people with early rheumatoid arthritis has moved a step closer after research demonstrated that infliximab can induce sustained remission (William St Clair et al, 2004). This study is the first to show a prolonged therapeutic response in patients with early rheumatoid arthritis after withdrawal of infliximab therapy. After two years, 70 per cent of patients taking infliximab satisfied the Arthritis Research Campaign remission criteria compared with 20 per cent treated with methotrexate alone.

Issues for nurses

Nurses play a pivotal role in the care of patients with arthritis and this requires a combination of knowledge, understanding and expertise. Nurses also need to work as partners with patients and families. Many rheumatology nurses undertake extended roles, and it is important they are founded on sound research. Unfortunately, little research has focused on the nursing care of patients with arthritis. The work so far has focused on outcomes from rheumatology nursing clinics (Hill et al, 2003; Hill et al, 2002), and these studies demonstrate benefit to patients with rheumatoid arthritis and osteoarthritis.

However, no studies have been undertaken concerning the patients receiving hospital nursing care or those being cared for by a biologics nurse specialist. The Arthritis Research Campaign recognised this deficit and has funded five academic health professional posts to produce quality research. Three of these posts were awarded to nurses. The holder of one of the senior lecturer posts has been pivotal in setting up the Academic and Clinical Unit for Musculoskeletal Nursing (ACUMeN) in Leeds, and to date two PhD students are investigating nursing topics. A practice development unit is also being established.

There is a move from secondary to primary care in almost all specialties. This is appropriate for patients with arthritis as the majority are managed in the community. However, few specialist nurses are based in primary care making it an area ripe for development.

Conclusion

New therapies for inflammatory diseases, such as the biologics, are both exciting and challenging. The excitement is the prospect of increased quality of life for patients, while the challenge is the safe monitoring and caring for the 30 per cent who do not respond.

Safety issues regarding NSAIDs are a setback, as the pain relief they provide is essential to many patients. Nurses will need to engage all their skills if they are to help patients relieve their pain.

For related articles on this subject and links to relevant websites see www.nursingtimes.net

REFERENCES


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