What viruses commonly cause acute polyarthritis?

In approaching a patient like Sarah, presenting with a recent onset of acute polyarticular joint pain and swelling, duration of symptoms is key.

An acute polyarthritis lasting less than six weeks is commonly due to viruses, particularly parvovirus B19. Adults with this infection may have flu-like symptoms, polyarthralgia/polyarthritis and often do not get the typical “slapped-cheek” rash characteristic of fifth disease in children.

Other viruses associated with acute polyarthritis include rubella and hepatitis B and C.

Viral polyarthritis is usually self-limited and generally resolves within four to six weeks.

Do any common medications induce polyarthritis?

Minocycline has been associated with induction of a lupus-like syndrome, particularly in young women treated for acne.

Prominent symptoms include polyarticular joint pain +/- swelling, fever and sometimes a non-specific rash. These patients often have positive antinuclear antibodies, but other more specific tests for lupus (i.e., anti-DNA) are usually normal.

Resolution of symptoms occurs with withdrawal of the drug, but this may take weeks or even a few months.
What is rheumatoid arthritis?

Rheumatoid arthritis (RA) is a chronic polyarthritis lasting more than six weeks. RA affects 1% to 2% of the population (approximately 300,000 Canadians), affects two to three women for every man and tends to have its onset between the ages of 25 and 50.

The disease commonly affects the small joints of the hands (i.e., metacarpophalangeal, proximal interphalangeal), wrists and feet (i.e., metatarsophalangeal) and may be associated with extra-articular features (i.e., nodules, dry eyes, etc.).

Anemia may also be seen and markers of inflammation, such as the erythrocyte sedimentation rate and C-reactive protein, are often elevated.

RA is associated with joint damage, functional disability, reduced quality of life and even increased mortality. Joint damage is common and progression is rapid, particularly in the first year of the disease.

When should an RA patient be referred?

Urgent referral to a rheumatologist should be considered when RA is suspected and, particularly, if any of the following are present:

- persistent synovitis (joint tenderness and swelling),
- elevated markers of inflammation (erythrocyte sedimentation rate and/or C-reactive protein),
- positive rheumatoid factor,
- presence of extra-articular features (such as nodules) and
- X-rays of hands and feet show features of inflammatory arthritis, including erosions, joint space narrowing and periarticular osteopenia.
How is RA managed?

A recent concept in the management of RA is there is a “window of opportunity” for treatment; therefore, use of disease-modifying antirheumatic drugs (DMARDs) is most likely to be effective when given early in the course of the disease.

Currently, the most commonly used DMARDs include hydroxychloroquine, sulfasalazine and methotrexate, often used in combination. Leflunamide is a newer oral DMARD and may be effective in some patients.

The newer biologic drugs act by inhibiting cytokines and represent exciting advances in the treatment of RA. They include infliximab, etanercept, anakinra and adalimumab. These DMARDs are effective, must be given parenterally, may lower a patient’s resistance to infections and are expensive.