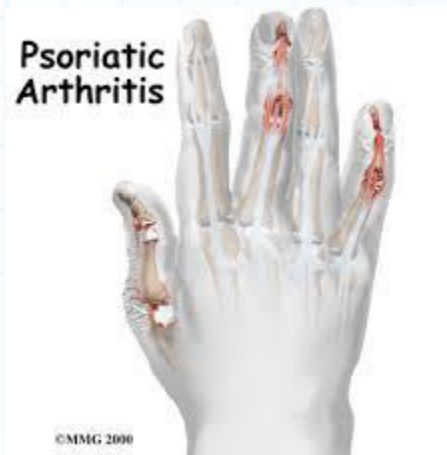


Psoriatic Arthritis



Psoriatic arthritis is a chronic disease characterized by a form of inflammation of the skin (psoriasis) and joints (inflammatory arthritis). Psoriasis is a common skin condition affecting 2% of the Caucasian population in the United States. It features patchy, raised, red areas of skin inflammation with scaling. Psoriasis often affects the tips of the elbows and knees, the scalp and ears, the navel, and around the genital areas or anus. Approximately 10%-15% of patients who have psoriasis also develop an associated inflammation of their joints. Patients who have inflammatory arthritis and psoriasis are diagnosed as

having psoriatic arthritis.

The onset of psoriatic arthritis generally occurs in the fourth and fifth decades of life. Males and females are affected equally. The skin disease (psoriasis) and the joint disease (arthritis) often appear separately. In fact, the skin disease precedes the arthritis in nearly 80% of patients. However, the arthritis may precede the psoriasis in up to 15% of patients. In some patients, the diagnosis of psoriatic arthritis can be difficult if the arthritis precedes psoriasis by many years. In fact, some patients have had arthritis for over 20 years before psoriasis eventually appears. Conversely, patients can have psoriasis for over 20 years prior to the development of arthritis, leading to the ultimate diagnosis of psoriatic arthritis.

Psoriatic arthritis is a systemic rheumatic disease that also can cause inflammation in body tissues away from the joints other than the skin, such as in the eyes, heart, lungs, and kidneys. Psoriatic arthritis shares many features with several other arthritic conditions, such as ankylosing spondylitis, reactive arthritis, and arthritis associated with Crohn's disease and ulcerative colitis. All of these conditions can cause inflammation in the spine and other joints, and the eyes, skin, mouth, and various organs. In view of their similarities and tendency to cause inflammation of the spine, these conditions are collectively referred to as spondyloarthropathies.

What causes psoriatic arthritis?

The cause of psoriatic arthritis is currently unknown. A combination of genetic, immune, and environmental factors is likely involved. In patients with psoriatic arthritis who have arthritis of the spine, a blood test gene marker called HLA-B27 is found in about 50%. Several other genes have also been found to be more common in patients with psoriatic arthritis. Certain changes in

the immune system may also be important in the development of psoriatic arthritis. For example, the decline in the number of immune cells called helper T cells in people with AIDS (HIV infection) may play a role in the development and progression of psoriasis in these patients. The importance of infectious agents and other environmental factors in the cause of psoriatic arthritis is being investigated by researchers.

What are risk factors for developing psoriatic arthritis?

The major risk factor for developing psoriatic arthritis is having a family member with psoriasis. This relationship has been recognized as so significant that it is used as a helpful part of the history for the doctor to diagnose psoriatic arthritis. It might be that stressful life situations could affect the immune system, allowing for the expression and/or exacerbation of psoriatic arthritis. However, precisely how these emotional issues are related to psoriatic arthritis has not been established.

What are psoriatic arthritis symptoms and signs?

In most patients, the psoriasis precedes the arthritis by months to years. There can be tiny pitting nail changes of the finger and toenails. The type of psoriatic arthritis depends on the distribution of the joints affected. Accordingly, there are five types of psoriatic arthritis: symmetrical, asymmetric and few joints, spondylitis, distal interphalangeal joints, and arthritis mutilans.

The arthritis frequently involves the knees, ankles, and joints in the feet. Usually, only a few joints are inflamed at a time. The inflamed joints become stiff, painful, swollen, hot, tender, and red. There is usually loss of range of motion of the involved joints. Sometimes, joint inflammation in the fingers or toes can cause swelling of the entire digit, giving them the appearance of a "sausage." Joint stiffness is common and is typically worse early in the morning. Less commonly, psoriatic arthritis may involve many joints of the body in a symmetrical fashion, mimicking the pattern seen in rheumatoid arthritis. Psoriatic arthritis can also cause inflammation of the spine (spondylitis) and the sacrum, causing pain and stiffness in the low back, buttocks, neck, and upper back. Occasionally, psoriatic arthritis involves the small joints at the ends of the fingers. A very destructive, though less common, form of arthritis called "mutilans" can cause rapid damage to the joints. Fortunately, this form of arthritis is rare in patients with psoriatic arthritis.

Patients with psoriatic arthritis can also develop inflammation of the tendons (tendinitis) and around cartilage. Inflammation of the tendon behind the heel causes Achilles tendinitis, leading to pain with walking and climbing stairs. Inflammation of the chest wall and of the cartilage that links the ribs to the breastbone (sternum) can cause chest pain, as seen in costochondritis.

Aside from arthritis and spondylitis, psoriatic arthritis can cause fatigue and inflammation in other organs, such as the eyes, lungs, and aorta. Inflammation in the colored portion of the eye (iris) causes iritis, a painful condition that can be aggravated by bright light as the iris opens and closes the opening of the pupil. Corticosteroids injected directly into the eyes are sometimes necessary to decrease inflammation and prevent blindness. Inflammation in and around the lungs (pleuritis) causes chest pain, especially with deep breathing as the lungs expand against the inflamed areas, as well as shortness of breath. Inflammation of the aorta (aortitis) can cause leakage of the aortic valves, leading to heart failure and shortness of breath.

Acne and nail changes are commonly seen in psoriatic arthritis. Pitting and ridges are seen in fingernails and toenails of 80% of patients with psoriatic arthritis. Interestingly, these characteristic nail changes are observed in only a minority of psoriasis patients who do not have arthritis. Acne has been noted to occur in higher frequency in patients with psoriatic arthritis. In fact, a syndrome exists that features inflammation of the joint lining (synovitis), acne and pustules on the feet or palms, thickened and inflamed bone (hyperostosis), and bone inflammation (osteitis). This syndrome is, therefore, named by the eponym SAPHO syndrome.

How does the doctor diagnose psoriatic arthritis?

Psoriatic arthritis is a diagnosis made mainly on clinical grounds, based on the finding of psoriasis and the typical inflammatory arthritis of the spine and/or other joints. There is no laboratory test to diagnose psoriatic arthritis. Blood tests such as sedimentation rate may show an abnormal elevated result and merely reflect presence of inflammation in the joints and other organs of the body. Other blood tests, such as rheumatoid factor, are obtained to exclude rheumatoid arthritis. When one or two large joints (such as a knee) are inflamed, arthrocentesis can be performed. Arthrocentesis is an office procedure whereby a sterile needle is used to withdraw (aspirate) fluid from the inflamed joints. The fluid is then analyzed for inflammation, infection, gout crystals, and other inflammatory conditions. X-rays may show changes of cartilage or bone injury indicative of arthritis of the spine, sacroiliac joints, and/or joints of the hands. Typical X-ray findings include bony erosions resulting from arthritis, but these may not be present in early disease. MRI scanning is sometimes used to identify early erosion of joints. The blood test for the genetic marker HLA-B27, mentioned above, is often performed. This marker can be found in over 50% of patients with psoriatic arthritis who have spine inflammation.

What is the treatment for psoriatic arthritis?

The treatment of the arthritis aspects of psoriatic arthritis is described below. The treatment of psoriasis and the other involved organs is beyond the scope of this article.

Generally, the treatment of arthritis in psoriatic arthritis involves a combination of anti-inflammatory medications (NSAIDs) and exercise. If progressive inflammation and joint destruction occur despite NSAIDs treatment, more potent medications such as methotrexate (Rheumatrex, Trexall), corticosteroids, and antimalarial medications (such as hydroxychloroquine, or Plaquenil) are used.

Exercise programs can be done at home or with a physical therapist and are customized according to the disease and physical capabilities of each patient. Warm-up stretching, or other techniques, such as a hot shower or heat applications are helpful to relax muscles prior to exercise. Ice application after the routine can help minimize post-exercise soreness and inflammation. In general, exercises for arthritis are performed for the purpose of strengthening and maintaining or improving joint range of motion. They should be done on a regular basis for best results.

Nonsteroidal anti-inflammatory drugs (NSAIDs) are a group of medications that are helpful in reducing joint inflammation, pain, and stiffness. Examples of NSAIDs include aspirin, indomethacin (Indocin), tolmetin sodium (Tolectin), sulindac (Clinoril), and diclofenac (Voltaren). Their most frequent side effects include stomach upset and ulceration. They can also cause gastrointestinal bleeding. Newer NSAIDs called COX-2 inhibitors (such as celecoxib or Celebrex) cause gastrointestinal problems less frequently.

Disease-modifying medications

Patients who experience progressive joint destruction in spite of NSAIDs are candidates for more aggressive disease-modifying medications. Disease-modifying medications are important to prevent progressive joint destruction and deformity. These medications include methotrexate, which is used orally or can be given by injection on a weekly basis for psoriatic arthritis as well as for psoriasis alone. It can cause bone-marrow suppression, as well as liver damage with long-term use. Regular monitoring of blood counts and liver blood tests should be performed during therapy with methotrexate.

Antimalarial medication such as hydroxychloroquine (Plaquenil) is also used for persistent psoriatic arthritis. Its potential side effects include injury to the retina of the eye. Regular ophthalmologist examinations are suggested while using this medication.

Sulfasalazine (Azulfidine) is an oral sulfa-related medicine that has also been helpful in some patients with persistent psoriatic arthritis. Traditionally, Azulfidine has been an important agent in the treatment of ulcerative and Crohn's colitis. It should be taken with food, as it too can cause gastrointestinal upset.

Research has demonstrated effective treatment of both psoriasis and psoriatic arthritis with leflunomide (Arava), a medication that is also used for the treatment of rheumatoid arthritis.

Medications that block the chemical messenger known as tumor necrosis factor (TNF) are another treatment option for moderate to severe psoriatic arthritis. The TNF-blockers etanercept (Enbrel), infliximab (Remicade), adalimumab (Humira), golimumab (Simponi), and certilzumab pegol (Cimzia) are also referred to as biologic medications and can be very effective for severe psoriatic arthritis. They can significantly improve or eradicate both the psoriasis and the arthritis as well as stop progressive joint damage. These medications are given intravenously or by injections. There is an increased risk of infection while taking biologic medications and patients are screened for underlying tuberculosis prior to TNF-blocker administration.

Ustekinumab (Stelara) is an injectable biologic medication that is used to treat severe plaque psoriasis and psoriatic arthritis with or without methotrexate. This biologic works by blocking chemical messengers called interleukins. There is an increased risk of infections while taking ustekinumab.

Apremilast (Otezla) is an oral medicine approved for the treatment of patients with moderate to severe plaque psoriasis for whom phototherapy or systemic therapy is appropriate and for the treatment of adult patients with active psoriatic arthritis. Apremilast works by inhibiting an enzyme called phosphodiesterase 4 (PDE4). Apremilast can have side effects, including an increase in depression and gastrointestinal upset such as diarrhea and nausea.

Corticosteroids are potent anti-inflammatory agents. Corticosteroids can be given by mouth (such as prednisone) or injected (cortisone) directly into the joints to reduce inflammation. They can have side effects, especially with long-term use. These include thinning of the skin, easy bruising, infections, diabetes, osteoporosis and, rarely, bone death (necrosis) of the hips and knees.

While the relationship between the skin disease and joint disease is not clear, there are reports of improvement of the arthritis simultaneously with clearing of the psoriasis. Patients with psoriasis can benefit by direct sunlight exposure and are often treated with direct ultraviolet light therapy.

Finally, patients who have severe destruction of the joints may be candidates for orthopedic surgical repair. Total hip joint replacement and total knee joint replacement surgery are now commonplace in community hospitals throughout the United States.

What are the complications of psoriatic arthritis?

Psoriatic arthritis can be complicated by issues within the skin or the joints. The skin of psoriasis can become infected and require antibiotic treatments. The joints can become destroyed, deformed, and functionless. With aggressive treatment, however, these complications are generally avoidable. Psoriatic arthritis with eye, bowel, lung, or heart-valve inflammation can be complicated by disease in these areas. The degree of any injury depends on the location, the intensity, and duration of the inflammation.

What is the outlook (prognosis) for patients with psoriatic arthritis?

With aggressive treatment and monitoring of both the skin and the joints, patients can have an excellent outcome. It is particularly important to begin treatments early in the course of the arthritis for best results. Newer biologic medications can be extremely effective for those whose disease fails to respond to methotrexate or who cannot take it.

Can psoriatic arthritis be prevented?

There is no method to prevent psoriatic arthritis. It is best to treat the skin optimally. If treatments are under way and the disease is controlled, recurrence of disease does often occur when treatments are discontinued.

Is there a psoriatic arthritis diet?

It has been shown that vitamin D might improve the arthritis of psoriatic arthritis. Research has shown this to be a helpful dietary modification. There is no other universally effective diet, or foods to avoid, for psoriatic arthritis.

What does the future hold for patients with psoriatic arthritis?

The future treatment of psoriatic arthritis will evolve as more effective and safe medicines are developed. Areas of research involve treatment with medications that can alter the immune systems of patients with psoriatic arthritis. As the immune system changes and genetics are better defined in this illness, the efficacy of medical treatments will improve.

For more information about psoriatic arthritis, please visit the following site: National Psoriasis Foundation/USA

Reference:

http://www.medicinenet.com/psoriatic_arthritis