ANKYLOSING SPONDYLITIS

Understanding Systemic Arthritis

© Elaine Moore

Ankylosing spondylitis is a systemic autoimmune disease affecting the joints, heart, lungs, bowels and eyes.

What is Ankylosing Spondylitis?

Ankylosing spondylitis (AS), which is also called rheumatic spondylitis and anklosing spondylitis, is a systemic autoimmune arthritic disorder affecting the joints between the vertebrae of the spine, especially those found in the lower back. Inflammation in AS occurs in the areas where tendons and ligaments attach to bone. This inflammation causes the vertebrae to merge together.

Disease Course

The term ankylosing refers to the fusing of two bones into one, which is characteristic of this condition. The word spondylitis refers to inflammation of the spine. Thus, AS (along with psoriatic arthritis and reactive arthritis) belongs to a class of diseases known as spondyloarthropathies. In most cases, the sacroiliac joints of the lower back and pelvis are the first to be affected. Over time, the disease moves up, affecting joints throughout the spine. If the spine becomes rigid or the joints of the ribcage are affected, the normal movement of the chest cavity can become impaired and interfere with breathing. A systemic disease, AS can also affect other organs, particularly the eyes.

Who is Affected?

In America, more than 400,000 people are reported to have AS. Men are affected 5-10 times more often than women, and women may have milder, less progressive forms of the disease. Although AS is seen in all age groups, young people between the ages of 16 and 35 are most likely to be affected. AS that develops in children younger than 16 is called juvenile ankylosing spondylitis. About 5 percent of all cases of AS occur in children, usually males older than 11. Ankylosing spondylitis that occurs in childhood causes greater functional impairment than that seen in adults. Delays in diagnosis and treatment may be responsible for the increased disease progression seen in children.

Signs and Symptoms

A characteristic feature of AS is morning stiffness and joint pain that improves with activity. In the early course of AS, pain may be limited to the region of the hips and buttocks although the shoulders, knees, hips, feet, heels, and ankles may also be affected. Besides the joints, the bowels, lungs, heart, and eyes may also be affected. Over time, the
heart becomes enlarged. Up to 40 percent of patients, especially those who test positive for HLA B27, experience eye symptoms that can lead to a progressive vision loss. Eye symptoms, including reduced vision, light sensitivity, pain, and redness, develop suddenly and typically only affect one eye.

Systemic symptoms include fatigue, fever, chest pain, shortness of breath, muscle spasms, loss of appetite, and weight loss. Patients with AS may also develop an inflammatory form of arthritis affecting the peripheral (outer limbs) joints asymmetrically (only one side of the body affected). Joints in the hips, ankles, shoulders, elbows, wrists, hands and feet may be affected. Similar to other autoimmune diseases, symptoms in AS can vary over time, and periods of variable symptoms can alternate with periods of remission. In advanced disease, patients may experience difficulty walking.

In women with AS, the upper spine and neck are typically affected more than the lower back. Women also tend to experience pain resembling the pain seen in fibromyalgia and early arthritis. Because they have a lower risk for AS and their symptoms differ from those seen in men, women can have difficulty receiving a proper diagnosis. Women with AS do not experience a worsening of symptoms during pregnancy, and they do not have impaired fertility. In pregnancy, the disease-modifying agent sulfasalazine can be used.

**Immunological Changes and Diagnosis**

About 85 percent of people with ankylosing spondylitis test positive for the immune system marker HLA B27. However, HLA B27 is seen in other conditions such as Reiter’s disease, and 80 percent of people with HLA B27 do not develop AS. Consequently, a positive test result doesn’t necessarily mean that someone has AS, and a negative result doesn’t rule out the possibility of AS. An elevated erythrocyte sedimentation rate and C-reactive protein (CRP) are also seen in AS. Imaging tests, usually MRI and CT scans, are used to assess damage to the sacroiliac and other joints. Similar to other autoimmune rheumatic diseases, certain genes predispose people to developing AS when they’re exposed to certain environmental triggers. Although the triggers of AS remain uncertain, infectious agents and food allergies are suspected of triggering AS.

**Treatment**

The treatment of AS consists of aspirin and disease-modifying immunosuppressant medications such as methotrexate, sulfasalazine, and corticosteroids. Non-steroidal anti-inflammatory medications such as ibuprofen and naproxen offer pain relief but they do not benefit and may accelerate the disease process. Recently, drugs that inhibit production of tumor necrosis factor (TNF) such as etanercept (Enbrel), adalimumab (Humira), and infliximab (Remicade) have been added to the list of approved treatments for AS. Studies by Dr. Bernard Bihari suggest that low dose naltrexone may be effective in ankylosing spondylitis.
Physical therapy, including range of motion exercises and stretching to help maintain spine flexibility and prevent spinal curvature, are also part of the total healing protocol. Hot baths, heat, and massages are also beneficial. Mild exercise, such as swimming, is also recommended, although exercises, such as jogging, that put pressure on spinal joints should not be performed. Surgery is usually only used if the nerves become trapped or damaged or if joint replacement is indicated.

Alternative medical treatments for AS include the use of digestive enzymes, such as bromelain and betaine HCL. A nutrient-rich diet and an avoidance of known or suspected food allergens is also essential because intestinal problems and leaky gut syndrome tend to worsen the disease course in AS. To reduce inflammation, patients with AS should also avoid sugar and saturated fats. Unlike osteoarthritis, ankylosing spondylitis is not associated with degenerative bone loss. For this reason, chondroitin and glucosamine do not offer benefits.

**Risk Factors**

People with other autoimmune diseases, particularly Crohn’s disease, ulcerative colitis, and inflammatory bowel disease, have a higher risk for developing AS. People with symptoms similar to those of AS but who do not fit the definitive criteria for AS are said to have undifferentiated spondyloarthropathy. Over time, people diagnosed with undifferentiated conditions, especially those who test positive for HLA B27 may go on to develop overt conditions of ankylosing spondylitis.

The copyright of the article Ankylosing Spondylitis in Rheumatism is owned by Elaine Moore. Permission to republish Ankylosing Spondylitis in print or online must be granted by the author in writing.