What You Need to Know About Lower Back Pain and Ankylosing Spondylitis

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Ankylosing Spondylitis Back Pain

Ankylosing spondylitis (AS) is an inflammatory form of arthritis that affects the spine. AS causes inflammation of the vertebrae of the spine, which can result in chronic ankylosing spondylitis back pain. It is the most common form of chronic arthritis of the axial, or central, skeleton. These arthritic changes can be accompanied by problems with the eye, psoriasis, inflammation of the tendons and ligaments called enthesitis, and inflammatory bowel disease (IBD). AS is a chronic, lifelong disease which can limit mobility, the ability to work and quality of life.

AS affects 0.1 to 0.5% of the population, with the first symptoms of AS usually occurring by the age of 30 and more common found among men. Men who have AS are more likely to develop symptoms at a younger age and are more likely to have a severe form of the disease with greater loss of mobility. AS is not as common as other autoimmune arthritis, such as rheumatoid arthritis, which affects approximately 1% of the population.

There is no conclusive cause for AS, but it is known to be in the same class of autoimmune diseases that also includes rheumatoid arthritis and psoriasis. The presence of the gene HLA-B27 is seen in nine out of 10 patients with AS, similar to other types of inflammatory autoimmune diseases, like psoriatic arthritis and inflammatory bowel disease.

Diagnosis of AS

While there is no specific test used to diagnose AS, doctors use a combination of the patient's history, a physical exam, blood tests and x-rays to diagnose it. Genetic testing for ankylosing spondylitis can also be carried out to look for the HLA-B27 gene, which is found in most people with AS. The diagnosis of AS is usually made if inflammation of the sacroiliac joint is found on x-ray, with a history of at least three months of lower back pain, decreased movement in the lower back and being unable to fully expand the chest during respiration.

Symptoms of AS

The first symptoms usually appear in the sacroiliac joints in the lower back but can spread throughout the spine and neck. The most common symptoms seen early in the disease include pain and stiffness in the lower back, which gets better with exercise, but doesn't improve with rest and is worse in the morning and at night. Early symptoms can also include mild fever, fatigue and loss of appetite.

AS can also cause pain and inflammation throughout the body, including shoulders, ribs, hips, heels, and joints in the hands and feet. The areas where tendons and ligaments attach to bones can also become inflamed and painful, which is a condition called enthesitis; enthesitis is seen mostly in the heel, the ribs and the top of the shin. In severe disease cases, the body tries to repair the bone by creating new bone. This new bone can cause

vertebrae in the back to join together and fuse. This fusion (ankylosis) makes the spine stiff and can affect your ability to take deep breaths and for the lungs to function properly.

Due to the chronic nature of AS, its effects can extend beyond just the arthritis-related symptoms. There are many complications that can arise as a result of having ankylosing spondylitis.
Uveitis, or inflammation that occurs in the eye, is one of the most common complications of AS. It has been found in nearly half (40%) of AS patients. Symptoms of uveitis include pain in the eye, changes in vision and sensitivity to light.

Fatigue is a common complication of AS, which can result from the chronic nature of AS and from mild to moderate anemia that can be associated with chronic inflammation.

The changes in bone structure seen in AS can lead to compression fractures, which can consequently lead to pain, spinal injury and vertebral deformity when they occur in the spine.

AS can increase the risk for heart disease, and these types of complications can occur in approximately 2 to 10% of patients. Cardiovascular complications can include inflammation of the aorta as well as problems with the valves and the conduction system of the heart.

The respiratory system can also be affected by AS, not only due to the changes in the spine and ribs, but also with fibrosis, or scarring, occurring in the lungs themselves.

Depression can also accompany AS and has been linked to more severe cases of the disease and poor overall health.

Treatment of Ankylosing Spondylitis Back Pain

With ankylosing spondylitis, the goal of treatment is to control the disease and the accompanying pain and complications. Effective treatment can improve mobility, functioning, mental health and the ability to work.

Home remedies that can help treat AS include applying heat and cold packs to joints to decrease inflammation and stiffness, as well as continuing to exercise to decrease any limitations to mobility that can accompany AS.

Non-steroidal anti-inflammatory drugs (NSAIDs) are a mainstay of the treatment of AS. These drugs, including naproxen and indomethacin, can alleviate the inflammation and pain associated with AS. Guidelines recommend continuous NSAID treatment for active AS, but on demand NSAID treatment for those with stable disease activity.

If adults have severe disease activity while on NSAIDS, they may be prescribed additional medications. One option is a class of medications called biologics, including interleukin-17 (IL-17) inhibitor and tumor necrosis factor (TNF) blockers. Both of these types of drugs block inflammation in the body as a way to treat AS.

Physical therapy is recommended for all patients with AS, and it has been shown to benefit patients with their pain and mobility. Physiotherapy for ankylosing spondylitis can include exercise programs, range of motion exercises and stretching. These can help to maintain functionality.

Fall prevention education is also an important preventive measure for those with AS.

Receiving regular medical care is an important element in the treatment of AS. This includes ophthalmology appointments to look for any eye complications.

Smoking has been connected to worse outcomes in AS, so stopping smoking is an important aspect to the treatment of this disease.