

Ankylosing spondylitis

What is ankylosing spondylitis

Ankylosing spondylitis (AS) is a form of autoimmune arthritis that falls within a category of arthritides known as spondyloarthritides. It affects young patients less than 45 years of age, with a higher frequency in men compared to women. The affected joints are the spine, as well as the joints of the pelvis known as the sacroiliac joints, leading to persistent lower back pain and stiffness. Sometimes the joints as well as tendons are affected.

What are the symptoms of Ankylosing spondylitis arthritis?

Ankylosing spondylitis typically causes the following manifestations:

- Lower back pain (pain typically starts in the lower spine but can progress to involve the whole spine over time)
- Buttock pain that may descend into the back of the thighs
- Back pain often disturbs sleep and is worse in the early hours of the morning
- Back pain is accompanied by a feeling of stiffness of the lower back that lasts more than 30 minutes after rest.
- Back pain is often relieved by exercising or stretching
- These symptoms are present for a duration of 3 months or longer
- At times pain may occur in the hip (groin) and shoulders
- Chronic tiredness (fatigue) and weight loss
- If back pain persists it may result in difficulty bending forward or to the sides and restrict movement
- You may experience painful red eyes with decreased vision

What are the causes of Ankylosing spondylitis?

The true cause of AS is unclear, it is however thought to be the result of an autoimmune process in which the immune cells of the body that are meant to react to infections or foreign pathogens, attack healthy tissues of the spine and pelvic joints. Unlike other joint diseases the immune system predominantly attacks the joints in the spine as well as the areas where muscles attach to bone as well as the ligaments that support the bony structures. The disorder is thought to arise predominantly in individuals who have a predisposing, underlying genetic susceptibility to this form of arthritis, and that is abnormalities in their HLA-B27 gene. From previous study it is also noted that the disease tends to be more prevalent in the Caucasian population, as opposed to other ethnic groups, and affects males more often than females.

How is ankylosing Spondylitis diagnosed?

The diagnosis of AS is usually a clinical diagnosis, meaning that your Doctor or Rheumatologist will assess your medical history, perform a thorough physical examination, conduct special clinical tests to assess for the presence of AS. Among those blood tests is a test for the HLA B27 gene abnormality. A negative result however does not exclude the diagnosis of AS. Your doctor may also request x-rays and perhaps an MRI of the spine and pelvic joints to confirm the diagnosis and to exclude other causes of back pain. Advanced AS appears as a bamboo spine due to the fusion of the spine and the sacroiliac joints (pic 1 and 2).

How does Ankylosing Spondylitis progress?

Over time especially if left untreated the areas in the spine and the ligaments that are constantly inflamed, have calcium deposits developing in those areas that lead to permanent stiffening of the spine and immobility. This leads to difficulty with bending, leaning to the sides and turning the head from side to side and even up and down. It also leads to deformity and restriction in the spine with abnormal posturing (pic 3).

What are the current treatment options for Ankylosing spondylitis?

At present there is no cure for AS. The first line treatment of AS are drugs known as NSAIDS (non steroidal anti-inflammatory disease modifying drugs). These are pain killers but also inhibit the progression of the disease. Cortisone is not recommended in oral form but may be used to inject the affected joints if they are swollen. If there is no response to these drugs and they fail to bring relief then treatment with disease modifying antirheumatic drugs should be instituted.

Biologic Dmards

Biologics are the effective drugs for treating the spine and pelvic joints after failing to respond to NSAIDS. The TNF inhibitors are Etanercept (Enbrel), Adalimumab (Humira), Infliximab (Revellex) and Golimumab (Simponi). There is also a newer agent called Secukinumab (Cosentyx). These medications are given either intravenously or injected just under the skin. They are available in the country however they are very expensive. They also may increase the risks of infections, particularly TB in our setting. (see drug info list

Synthetic DMARDs

Synthetic DMARDs such as sulfasalazine, methotrexate and leflunomide have been used in the treatment of rheumatic diseases for many years and can be used to treat AS. They can ease the symptoms of pain and stiffness associated with peripheral joint involvement.

Surgery

Surgery is not performed frequently in patients with AS but may be required when the spine becomes too stooped. It may be effective in correcting spinal postures such as stooping that may make vision difficult for you when walking. The joints of the hip or shoulder may also be replaced if they are damaged by AS.

What are the associated diseases that can occur with Ankylosing Spondylitis?

Uveitis : Red, painful eyes that may be associated with poor vision. Your Rheumatologist must send you to be reviewed by an ophthalmologist.

Osteoporosis : Longstanding inflammation in the spine as a result of AS can cause weakening of the bone architecture and make it prone to fracture. Your Rheumatologist can evaluate for this and start treatment as needed.

Heart: Rarely the inflammation associated with AS can cause the valves in the heart to stretch inappropriately and fail to close adequately when pumping blood through the heart. This leads to abnormal leaking in the valve. Your Doctor will be able to assess for this.

Is there a role for exercise or physiotherapy in Ankylosing Spondylitis?

You can do regular exercises that promote stretching of the spine, these help minimize deformity. Regular swimming is considered the most appropriate aerobic exercise for AS patients.

What else can you do to help your condition?

Avoid smoking as this can worsen the inflammation in the spine and lead to more aggressive disease despite treatment. Ensure regular adherence to prescribed treatment as this halts progression of disease. Report intolerance rather than stopping medication on your own. Appropriate regular exercise as recommended by your Rheumatologist and physiotherapist will help ease the disease.

Picture 1.



Picture 2.



Picture 3.

