

Mechanical Disorders: Facet Arthropathy

The facet joints connect the posterior elements of the vertebral bodies to one another. Like the bones that form other joints in the human body, such as the hip, knee, or elbow, the articular surfaces of the facet joints are covered by a layer of smooth cartilage, surrounded by a strong capsule of ligaments, and lubricated by synovial fluid. Just like the hip and the knee, the facet joints can also become arthritic and painful, and they can be a source of back pain. The pain and discomfort that is caused by degeneration and arthritis of this part of the spine is called facet arthropathy, which simply means a disease or abnormality of the facet joints.



Symptoms

Most people who have facet arthropathy will complain of low back pain that is worse with twisting or extension (bending backwards) of the lumbar spine. The pain is often quite well localized, and unlike the pain and numbness caused by a herniated disc or sciatica, it does not usually radiate into the buttocks or down the legs. However, as the facet joints become arthritic, they often develop bone spurs that can decrease the amount of space available for the nerve roots as they exit the spinal canal. This can be a contributing factor in the development of spinal stenosis, which does cause pain, numbness, and weakness in the buttocks and legs.

Diagnosis

Facet arthropathy is rarely the only cause of significant back low back pain, and patients who have this condition often have other disorders that may be contributing to their symptoms, including degenerative disc disease, arthritis of other parts of the spine, and often spinal stenosis as well. Most people with even mild to moderate amounts of arthritis of the lumbar spine will have evidence of facet joint degeneration on a CT scan (CAT scan) or MRI. A bone scan, which shows areas of active inflammation in the spine, is a test that can be used to determine whether or not facet arthropathy may be contributing to a patient's back pain. The facet joints themselves can be selectively injected with a mixture of a local anesthetic and an anti-inflammatory steroid. If this injection relieves a significant amount of the patient's back pain, and there is evidence to suggest that the facet joints are arthritic (such as a positive bone scan, CT, or MRI), then the diagnosis of facet arthropathy can be made with some confidence.

Treatment

There are several options for treating the pain and symptoms caused by facet arthropathy. The initial treatment of facet joint disease involves avoiding the motions that cause the joints to be painful (such as repetitive twisting, lifting, or extension of the lumbar spine), a course of anti-inflammatory medications, and stretching and strengthening exercises to improve the strength and endurance of the muscles in the lumbar spine. Injections can be used to relieve some of the pain and discomfort of facet arthropathy by quieting down the inflammation and synovitis that is caused by this type of arthritis. Unfortunately, this is often not a permanent solution, and the pain may recur after several months. There are a few techniques that have recently been developed that attempt to alleviate the pain of facet arthropathy by permanently destroying the nerves that innervate the facet joints and "feel" the pain of the arthritis. These procedures use small electrical

probes that are inserted through the skin into the area of the nerves to the facet joints, and an electrical current that destroys the nerve is sent to the tip of the probe. This procedure is called a sinu-vertebral nerve ablation or radiofrequency nerve lesioning.

In other situations, surgery may be indicated to relieve the pain of facet arthropathy. This usually occurs when there is evidence of nerve root compression from enlargement of the facet joints, or other disorders in the lumbar spine (such as degenerative disc disease, spinal instability, or spinal stenosis) that need to be treated with surgery. In the course of most forms of a spinal fusion, the surgeon removes the facet joints between the levels of the spine that are to be fused together, which effectively eliminates the facet joints as a source of future symptoms.