DEGENERATIVE CONDITIONS

Lumbar spinal stenosis (*LSS*) describes a narrowed lumbar spinal canal. *Neurogenic claudication* consists of pain, typically in the back and buttocks or legs, that is brought on by walking or standing and relieved by sitting. Unlike vascular claudication, symptoms are often provoked by standing without walking. Unlike lumbar disk disease, symptoms are usually relieved by sitting. Patients with neurogenic claudication can often walk much farther when leaning over a shopping cart and can pedal a stationary bike with ease while sitting. These flexed positions increase the anteroposterior spinal canal diameter and reduce intraspinal venous hypertension, producing pain relief. Focal weakness, sensory loss, or reflex changes may occur when spinal stenosis is associated with neural foraminal narrowing and radiculopathy. Severe neurologic deficits, including paralysis and urinary incontinence, occur only rarely.

LSS by itself is common (6–7% of adults) and is usually asymptomatic. Symptoms are correlated with severe spinal canal stenosis. LSS is most often acquired (75%) but can also be congenital or due to a mixture of both etiologies. Congenital forms (achondroplasia and idiopathic) are characterized by short, thick pedicles that produce both spinal canal and lateral recess stenosis. Acquired factors that contribute to spinal stenosis include degenerative diseases (spondylosis, spondylolisthesis, and scoliosis), trauma, spine surgery, metabolic or endocrine disorders (epidural lipomatosis, osteoporosis, acromegaly, renal osteodystrophy, and hypoparathyroidism), and Paget's disease. MRI provides the best definition of the abnormal anatomy **(Fig. 17-5)**.