LUMBOSACRAL STENOSIS—CAUDA EQUINA SYNDROME (LOWER BACK PAIN)

What is it? Lumbosacral stenosis is a narrowing of the spinal canal at the junction of the last lumbar vertebra and the sacrum (the lower back), resulting in pinching of the nerve roots in this area. Protrusion or herniation of the L7-S1 disk, thickening of the ligaments and other soft tissues in this region, and arthritic bony changes of the vertebrae and spinal canal at this location can combine to narrow this portion of the spinal canal and “squish” the nerve roots as they leave the canal and go out towards the hind limbs.

What animals are affected? Most commonly, we see lumbosacral stenosis in middle-aged to older large breed dogs.

What are the signs? The signs typically are related to discomfort in the lower back, especially with extension of the back. Dogs may no longer want to go up stairs or jump into vehicles. Some dogs with significant compression of the nerve roots may also have weakness in the hind limbs, may scuff or drag their paws, may have decreased anal tone and tail function.

How is it diagnosed? Diagnosis is based on history, clinical signs, neurologic examination, radiographs and imaging of the LS region via MRI or CT.

How is it treated? Medical management includes anti-inflammatory medications, pain relievers, and restricted activity. This management can often alleviate the clinical sign of discomfort. Surgical decompression is recommended if pain is persistent or neurologic deficits are present, and if the CT or MRI confirm disc protrusion/herniation and nerve root compression. Surgery involves a dorsal laminectomy. This procedure removes the “roof” of the spinal canal at the LS junction, which takes pressure off the nerve roots from above, and allows the nerve roots to be retracted so the disc underneath them can be fenestrated or removed to relieve pressure from underneath. If there is significant instability at this site, the LS region may also need to be stabilized with pins and cement to avoid future problems.

What after care is needed? Most dogs will recover well. Activity must be restricted for 2-3 weeks, and they often benefit from physical rehabilitation to regain strength.

What is the prognosis? If the nerve root compression can be alleviated, the prognosis is very good for resolution of the back pain and weakness. Dogs that have significant neurologic deficits and incontinence preoperatively have a more guarded prognosis and may not regain continence and full strength.