Chronic Low Back and Left Lower Extremity Pain in an Elderly Woman

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The patient was a 79-year-old woman who presented to her primary care physician with complaints of constant low back and left lower extremity pain that had progressively worsened over the previous 6 months. The patient reported that her symptoms were insidious in onset and currently limited her ability to walk greater than 27 m, stand longer than 10 minutes, and sit longer than 5 minutes. Physical examination revealed an antalgic gait, limited lumbar flexion and extension range of motion that both exacerbated the patient’s symptoms, and weakness of the left L5 myotome as assessed with manual resistance to great-toe extension.

Given the patient’s age, progressively worsening symptoms, and positive neurologic findings, radiographs were ordered, which demonstrated a spondylolisthesis at L4-5 with significant disc space narrowing at L4-5 and L5-S1 (FIGURE 1). Further evaluation through magnetic resonance imaging demonstrated severe central canal, lateral recess, and foraminal stenosis, as well as a posterior disc protrusion, a degenerative forward listhesis, and a left-sided synovial cyst at L4-5 (FIGURE 2).

The patient subsequently underwent an L3-4 laminectomy, an L4-5 fusion, and removal of the synovial cyst. The patient was also managed by a physical therapist following her surgery. At 1 year following surgery, the patient’s Oswestry Disability Index score was 8%, and she reported that she was able to fully perform all of her required activities of daily living independently.

FIGURE 1. (LEFT) Lateral radiographic view of the lumbar spine demonstrating a spondylolisthesis at L4-5 with significant disc space narrowing at L4-5 and L5-S1.

FIGURE 2. (ABOVE) Sagittal T2-weighted magnetic resonance image of the lumbar spine. At L4-5, there is severe central canal stenosis produced by a posterior disc protrusion, a degenerative forward listhesis, and a left-sided synovial cyst (arrow). At L5-S1, there is posterior disc bulging and decreased disc height. There is also posterior disc bulging at T12-L1, L1-2, L2-3, and L3-4.