

## **"Beyond the Scalpel: Interventional Solutions for Patients with Lumbar Spinal Stenosis with Neurogenic Claudication"**

By: Denise Love, ARNP, Pain Management of North Idaho, PLLC

Not every patient with lumbar spinal stenosis (LSS) and neurogenic claudication can make it to the operating room—but their quality of life doesn't have to stall in the waiting room. Primary care providers are often the first to hear, "I can't walk to the mailbox anymore." When surgery isn't an option for your patient, you can still open the door to meaningful relief with interventional therapies.

### **Neurogenic Claudication: A Recap**

Symptoms of neurogenic claudication typically include bilateral or unilateral buttock pain and/or lower extremity discomfort, weakness, or heaviness, often precipitated by walking or prolonged standing and relieved by stooping forward or sitting. There is no clear predictor of who will develop symptoms. Prevalence is approximately 11% and increases with age. According to NIH data, surgeons perform about 600,000 surgical interventions for LSS annually. Providers generally recommend non-operative treatments, such as physical therapy, before surgery. For patients who cannot have surgery due to comorbidities, life circumstances, or personal preference, interventional pain therapies can bridge the gap—helping patients move from debilitating pain to a more functional and comfortable life.

### **Understanding the Challenge**

Lumbar spinal stenosis is a common degenerative condition involving narrowing of the central canal, lateral recess, or neural foramen. Contributing factors include disc herniation or bulge, facet joint hypertrophy, ligamentum flavum hypertrophy and buckling, and concomitant spondylolisthesis.

Conservative measures—including physical therapy, medications, and back bracing—often provide limited or short-term benefit. Patients may initially find relief through activity modification, such as leaning forward or sitting down. However, as the condition progresses, these strategies may no longer allow them to maintain desired activity levels.

### **Interventional Therapies: An Overview**

#### **A. Epidural Steroid Injections (ESIs)**

ESIs are often the first-line interventional therapy for neurogenic claudication, targeting inflammation around compressed nerves. Pain relief is typically short- to intermediate-term, but injections can be repeated if patients experience at least three months of benefit. Injections may be performed via interlaminar or transforaminal approaches, based on symptom location, pathology, and imaging findings.

#### **B. Medial Branch Blocks (MNBB) and Radiofrequency Ablation (RFA)**

MNBB and RFA treat lumbar facet arthropathy, which often coexists with LSS and can mimic neurogenic claudication. Pain is typically localized over the back with a non-dermatomal pattern, usually around the buttock and thigh, rarely below the knee.

Diagnostic facet joint blocks are the most reliable method for identifying facet-mediated pain, with level I or I evidence according to USPSTF criteria. If two diagnostic blocks are successful, patients may proceed to RFA under light IV sedation. Maximum improvement usually occurs 6–8 weeks post-procedure. Pain may recur due to axonal regeneration, often requiring repeat RFA between 6 months and 1 year, though some patients experience lasting benefit beyond this timeframe.

Continued on next page

## **"Beyond the Scalpel: Interventional Solutions for Patients with Lumbar Spinal Stenosis with Neurogenic Claudication"**

By: Denise Love, ARNP, Pain Management of North Idaho, PLLC

### **Interventional Therapies: An Overview...continued**

#### **C. Minimally Invasive Lumbar Decompression (MILD®)**

The MILD procedure provides percutaneous decompression of hypertrophied ligamentum flavum in degenerative LSS. This approach debulks tissue contributing to canal narrowing while minimizing trauma to surrounding structures. MILD can be performed in an office-based or ambulatory setting under local and procedural anesthesia. Outcomes include improved function and walking distance. MILD is typically recommended after failure of conservative measures in patients with ligamentum flavum hypertrophy.

#### **D. Interspinous Process Spacers**

Our clinic previously offered the Superior Indirect Decompression System (Vertiflex) but discontinued use following FDA recalls for device and instrument failures. This treatment option is no longer available.

#### **E. Spinal Cord Stimulation (SCS)**

For refractory cases in appropriate candidates, SCS is a viable non-surgical option. A 2021 retrospective study in *Pain Physician* evaluated 118 patients and found that most experienced significant, sustained relief of leg pain and claudication symptoms for up to two years. Even patients without prior lumbar decompression surgery benefited. While not first-line therapy, careful patient selection allows clinicians to offer an effective, minimally invasive alternative for symptom management.

### **Collaborative Care and Referral Considerations**

Comprehensive evaluation is essential for patients who are not surgical candidates. While none of these treatments are curative, they can be life-changing in improving mobility and daily function. Goals for interventions include at least a 50% reduction in pain and measurable improvements in mobility and function.

Optimal outcomes are achieved through a multidisciplinary approach, combining careful patient selection by our pain specialists, targeted physical therapy, and ongoing medical management to maximize quality of life while minimizing procedural risks.

### **Conclusion**

**Non-surgical does not mean no options for patients with LSS and neurogenic claudication. Interventional therapies, including SCS and targeted injections, can significantly reduce pain, improve mobility, and enhance quality of life—even when surgery is not possible. When surgery isn't on the table, don't let patients resign themselves to immobility. Refer to Pain Management of North Idaho to explore these therapies and help restore independence and dignity.**

---