



# Chronic Low Back Pain Managed Successfully with Cox® Technic in a Diabetic, Post-Laminectomy Patient

presented by  
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Date of this report: 5-16-2008

**Summary of Case:** Patient is a 65-year old male who presents with a three-year history of right lateral lower leg pain, right anterior thigh pain extending into the acetabulum and buttock regions with mild-to-moderate low lumbar spine pain at times. Patient describes the leg pain symptoms as being at a "9+ pain level, almost a 10" and getting progressively worse with time, especially since a three-level laminectomy performed on July 14, 2006. The patient found his way into our office seeking massage therapy for his pain symptoms and being abruptly released as a patient from his previous chiropractor earlier that morning after being told he was now a 'liability' due to his unresolving pain and recent failed laminectomy.

**Review of Patient History:** Previous trauma included a motorcycle accident in 1975. Slip-and-fall on ice in the winter of 2007 exacerbated his already worsening pain symptoms.

**Other Medically Diagnosed Health Conditions** included diabetes with neuropathy, hypertension and depression.

**Medications** included neurontin, glucotrol, avandia and lexapro.

**Other Medical Care** received included nerve blocks prior to April 2007; lanocaine-steroid injection December 26, 2006 and May 2007; discectomies of the L3, L4 and L5 intervertebral discs, date unknown; bilateral laminectomy L3 through L5, July 24, 2006. No other surgical history was relevant to this patient's symptoms as presented.

**Physical Examination** demonstrated pain at the right lateral thigh, lateral lower leg and foot to the first three toes upon straightening of the knee and straight leg raise on the right leg. Braggard's sign was positive on the right. Opposite straight leg raise and extension of the knee did not exacerbate symptoms. Deep tendon reflexes were not attempted as patient stated his infrapatellar tendons and foot and ankle pain was too



intense. Evaluation of the dorsal-lateral tracts was unreliable as concentration on the relative sensation by the patient was interrupted by subjective pain.

**Radiographic Examination** (5-25-07, Figures 1-3) revealed pelvic unleveling, low to the left measuring 12 mm and concurrent moderate left rotatory lumbar scoliotic curvature. Sacralization involving the L5 vertebra is also visualized. Evidence of bilateral laminectomy involving L3, L4 and L5 levels is also noted. Anterior-to-posterior (A-P) projection demonstrated bridging spur formation visualized on the right at L1-2, on the left at L2-3. Osteophytic formation is also visualized throughout the lumbar spine on all radiographic projections evaluated. Gross remodeling is seen upon evaluation of the lateral view, predominately at the L4 and L3 levels. Again, bridging osteophytes were visualized within the anterior longitudinal ligament at L5-S1. Reversal of the normally expected lumbar lordotic contour was evident. Posterior facet joint degeneration and hypertrophy was noted throughout the entire lumbar spine as visualized. The L4 superior anterior endplate reveals a limbus vertebra of unfused apophysis.

**Review of MRI** report dated 10-24-2007 listed the following impressions (*See representative images of the complete MRI study, not including the entire study, in Figures 4-7*):

1. Extruded second lumbar intervertebral disc extending into the median and right paramedian regions of the spinal canal and into the right second lumbar neural foramen.
2. Focal protrusion as described herein of the third lumbar intervertebral disc extending into the right paramedian region.
3. Bilateral laminectomies extending from L3 to L5.
4. Transitional fifth lumbar vertebral segment characterized by bilateral sacralization.
5. Spondylosis deformans.
6. Previous discectomy of the third, fourth and fifth lumbar intervertebral discs with probable underlying osteochondrosis.
7. Osteoarthritis of the posterior apophyseal facets bilaterally at L4-5 and L5-S1.
8. Stenosis of the fourth lumbar neural foramina bilaterally due to a combination of disc degeneration with protrusion and osteoarthritis.
9. Diffuse epidural scar posterior to the thecal sac at the operative site from L3 to L5.
10. Modic's degenerative changes as described herein involving the vertebral endplates of L2, L3 as well as L1.

**Treatment Plan** consisted of lumbar flexion-distraction per Cox® Technic protocols. Protocol 2 including axial traction, flexion-distraction, then flexion-distraction with lateral lumbar flexion was administered to patient tolerance to range of motion. He tolerated the procedure very well and reported diminished leg and low back pain upon the chiropractic spinal adjustment described above. Myofascial release utilizing 'Active Release Techniques' (level III) was administered to the right gluteus medius and piriformis muscle groups. Original treatment frequency of 4 times per week for one to two weeks, then twice weekly for two weeks as determined by objective as well as subjective findings was recommended.



**Results:** The patient was contacted the morning following the first adjustment and reported significantly reduced low back and right leg and buttock pain, even upon walking and sitting. Patient stated he enjoyed the first full night's sleep the evening following the first adjustment since his pain began three years prior. No pain meds were taken in 24-hours since his chiropractic adjustment. He was seen for a second adjustment involving flexion-distraction including lateral flexion on 5-26-07. On 6-6-07, after seven (7) adjustments to that date, the patient reported his pain symptoms were consistently 90% resolved. Having cataract surgery on 6-5-07 did not flare up his low back or leg pain.

Diabetic neuropathy continued to flare up periodically and the patient noted that he and his medical physician were having difficulties controlling his blood sugar levels. On 6-8-07, it was suggested he begin a nutrition and lifestyle modification approach including a vegan diet and light exercise regime to address his diabetes and hypertension diagnoses. He followed the new eating plan nearly perfectly and on 6-11-07 reported vertigo/dizziness symptoms, nausea, BP was 146/90. He was referred to his M.D. for evaluation as it was suspected his diabetes medications were now too strong and inducing hypoglycemia. A visit to his M.D. confirmed this suspicion, and his meds were titrated by half immediately on that visit. By 6-15-07, his vertigo symptoms were resolved and continued to report no pain in his leg and only 'soreness' in his low back.

In a little less than one month's time, the patient had lost 30 pounds of excess weight (from 285 to 255 pounds) and was off all meds with the exception of a low level of glucotrol, which he continues to this day (although he readily admits to 'forgetting to take it regularly'). His blood pressure was 129/70 at its highest and he has discontinued his pain and anxiety prescriptions. He has experienced three episodes of exacerbation of his low back and leg pain with numbness; however, these episodes were each resolved with Cox® lumbar flexion-distraction chiropractic management. He continues to enjoy resolution of pain symptoms and full daily function, including long walks, car rides and shopping with his wife, while on a once or twice monthly schedule of chiropractic office visits. He has also experienced some fluctuations in his blood sugar levels on those occasions when he reverts to his old dietary habits. His fasting glucose levels are typically in the mid-to-upper 90's range and he has had no recurrence of his previous neuropathy symptoms in the past year since his diet and lifestyle changes.

Images follow...



Figure 1. Anteroposterior lumbar spine view showing the decompressive laminectomy extending from L3 to L5 levels and the ankylosis of the L1-2 and L2-3 levels

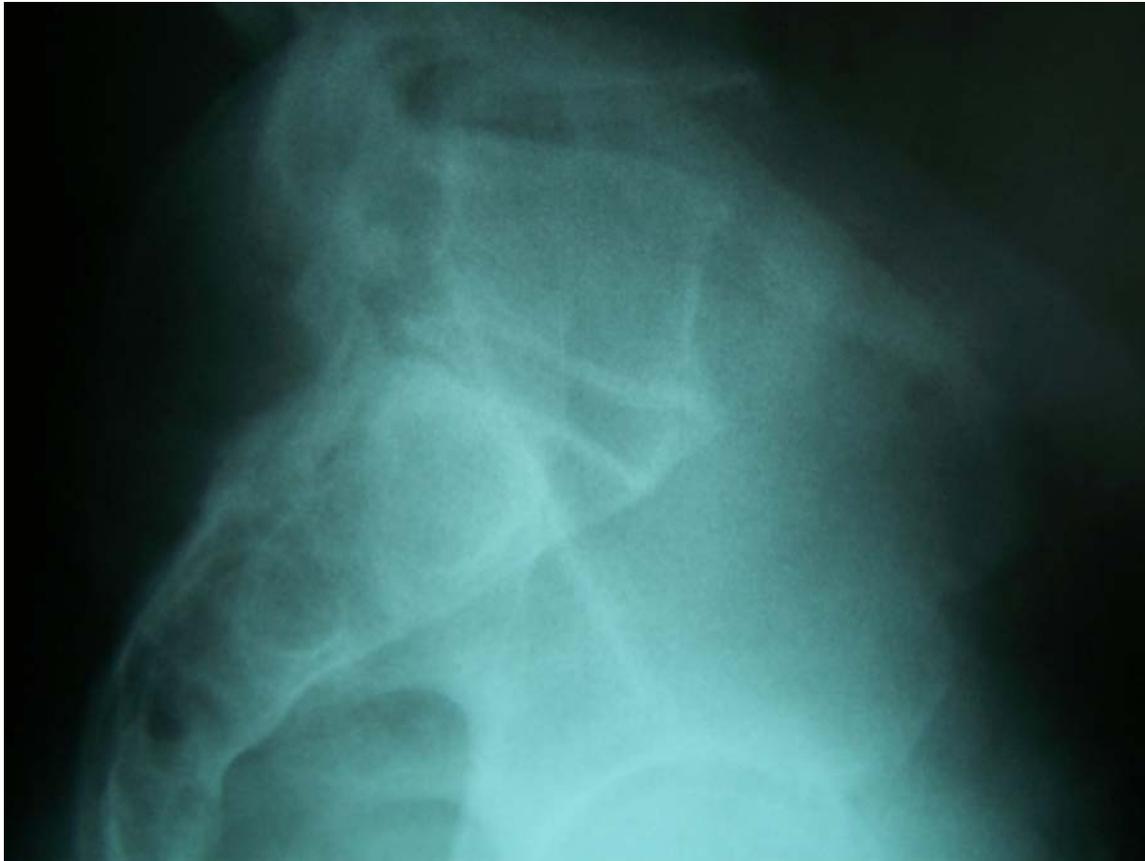


Figure 2. Note the sacralized L5 segment with its rudimentary disc formation and anterior intervertebral disc space ankylosis. Also note the L4-L5 disc degeneration with loss of disc height and posterior foraminal narrowing. This is Bertolotti's Syndrome, namely a transitional lower lumbar segment with the accompanying superior adjacent disc degeneration and/or herniation.



Figure 3. Note the generalized discogenic spondylotic changes throughout the lumbar spine, the limbus vertebra at the superior anterior L4 endplate with an ununited apophysis, and the endplate compressions superiorly at the L3 and L4 levels.



Figure 4. Note the generalized disc degeneration at all lumbar levels, the L4 limbus vertebra, and disc protrusions causing stenosis at the L2, L3, and L4 levels.

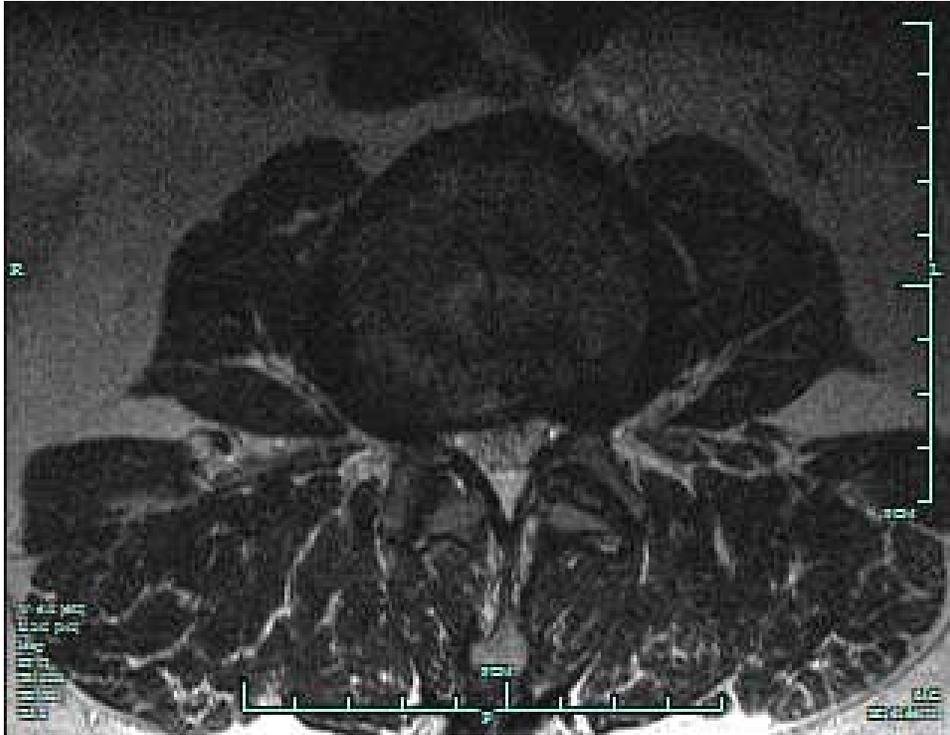


Figure 5. L2L3 axial image revealing stenosis



Figure 6. L3-L4 axial image

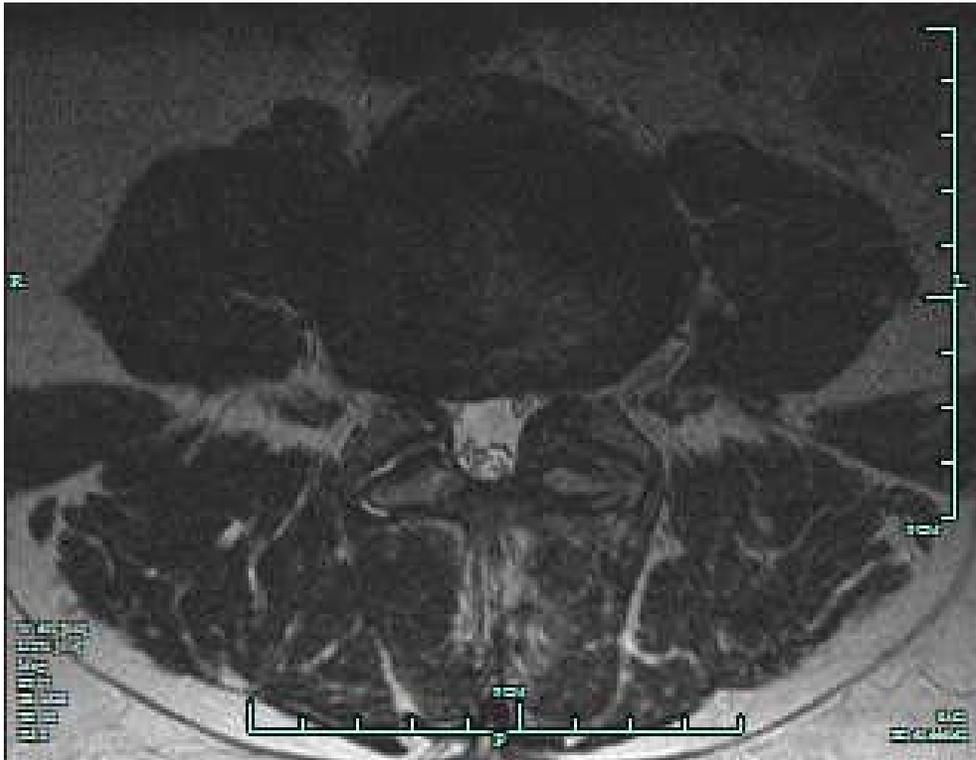


Figure 7. L4-L5 axial image