Cox® Technic Combined with Epidural Steroid Injection Relieves Degenerative Spondylolisthesis, Chronic Low Back Pain with Right Buttock, Thigh and Leg Pain

by
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History: This 64 year old white married female is seen September 12, 2011, for the chief complaint of low back pain radiating into the buttock, right thigh and leg pain to the ankle. She has had this for years. She has tried epidural injections which give her short term relief, approximately less than one week. She has seen another chiropractor for traditional chiropractic manipulation with no change. She has taken tramadol, vicodin, and prednisone.

Examination reveals hypoesthesia of the right L4, L5, and S1 dermatomes. The deep tendon reflexes at the patella and ankle are 1 of 5. No motor weakness is noted. Also observed during examination is that this patient also has right anterior thigh pain.

Radiological examination reveals degenerative spondylolisthesis of L4 and L3 on motion study, a transitional L5 segment, and advanced L4- L5 disc disease and facet syndrome at both the L4-L5 and L3-L4 levels. (see Figures 1 to 6) She has degenerative disc disease at the L3-L4 and L4-L5 levels and herniated disc bulges at the L3-L4 and L4-L5 levels. (See Figures 7, 8, 9). These findings can account for both anterior and posterior right lower extremity pain. Facet arthritis is noted at the L4-L5, L3-L4 levels. This pain is documented at a VAS of 10.

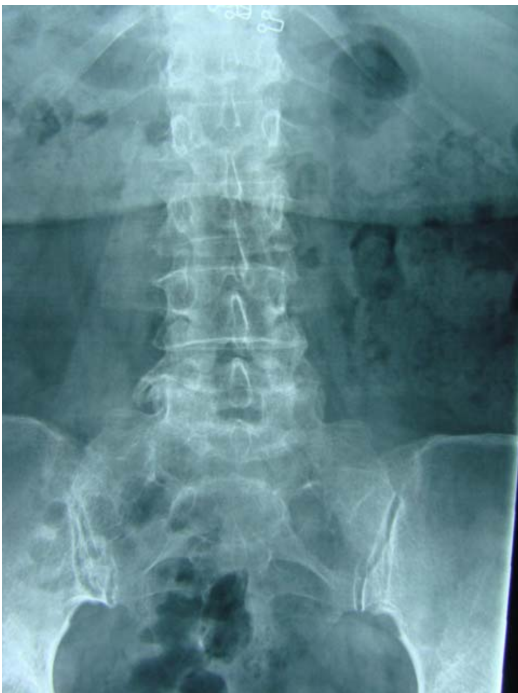

Figure 1. *Note the transitional L5 segment and the left sided (your reading right) large osteophyte of the L4 vertebral body.*

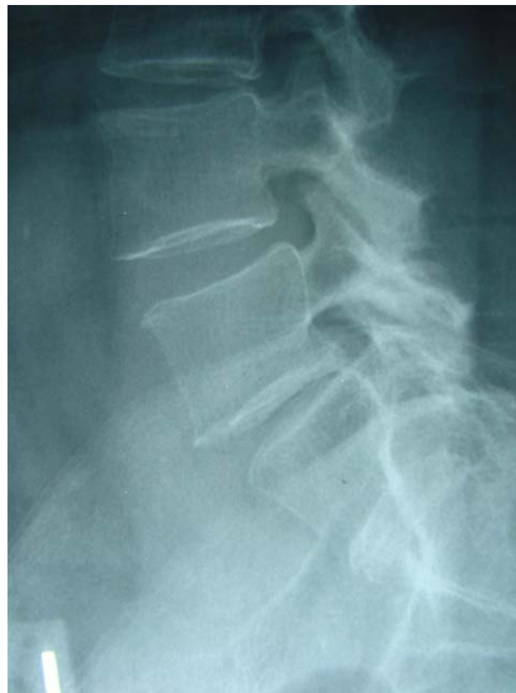

Figure 2. *Note the transitional L5 segment with degenerative disc disease at the L4-L5 disc level.*

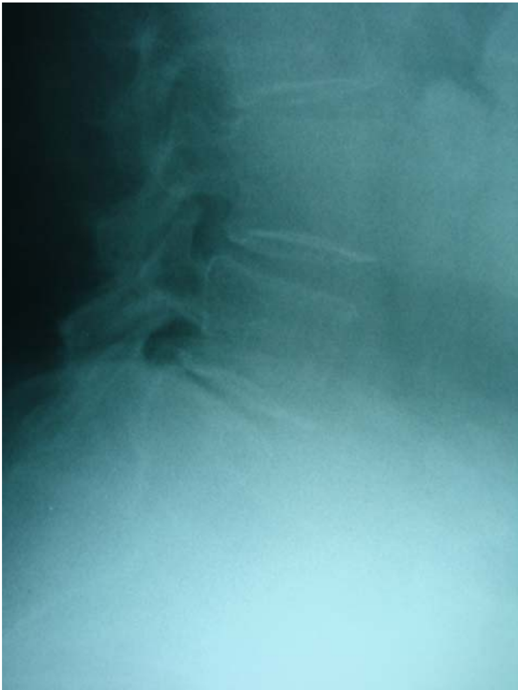

Figure 3: *This is a neutral standing lateral lumbar spine xray. The L4-L5 disc space narrowing is seen and minimal anterolisthesis of L3 on L4.*

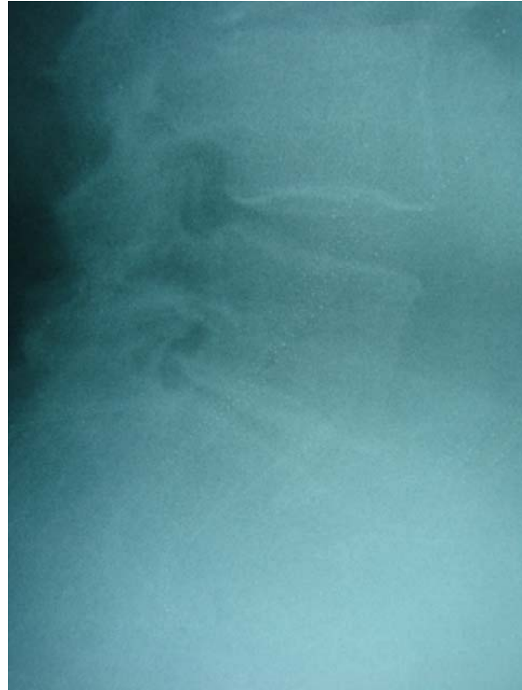

Figure 4: *Here is extension of the lumbar spine in the upright posture. Note the posterior endplate osteophyte of L4 and minor posterior translation of L4 on L5.*

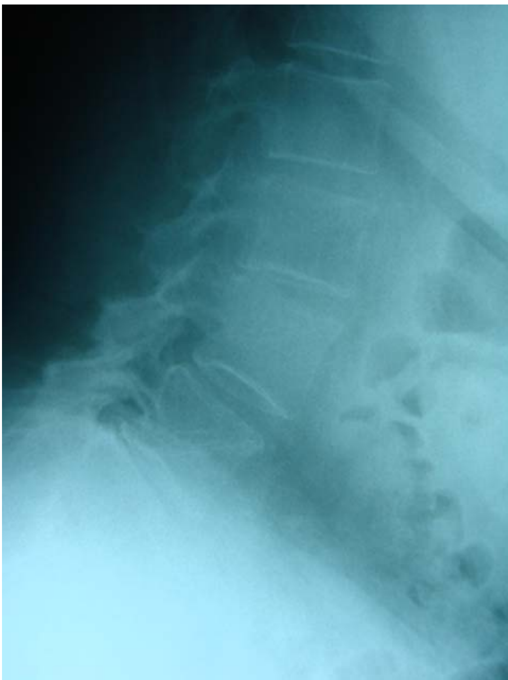

Figure 5: *Here is flexion motion of lumbar spine. Note the unstable anterior translation of L3 on L4 and L4 on L5.*

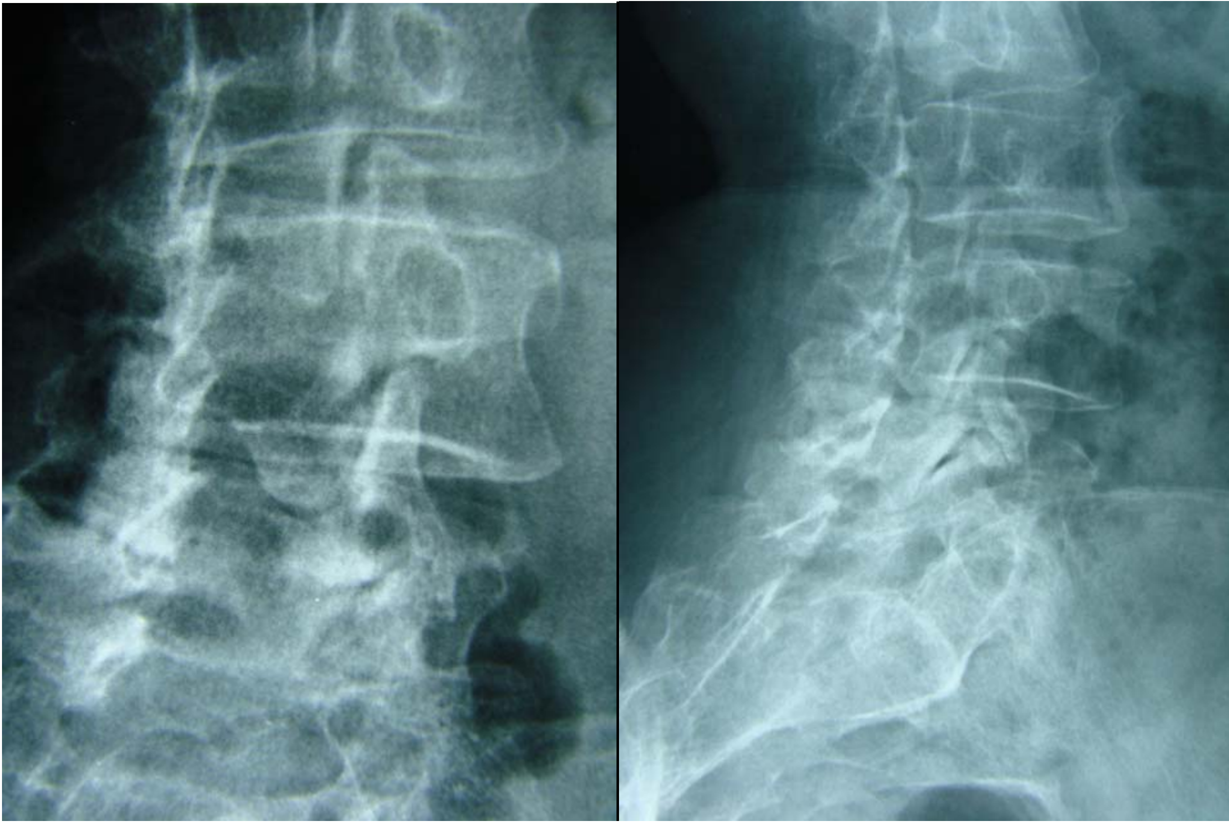

Figure 6: *Note facet syndrome and facet arthrosis at the L4-5 and L3-L4 levels*

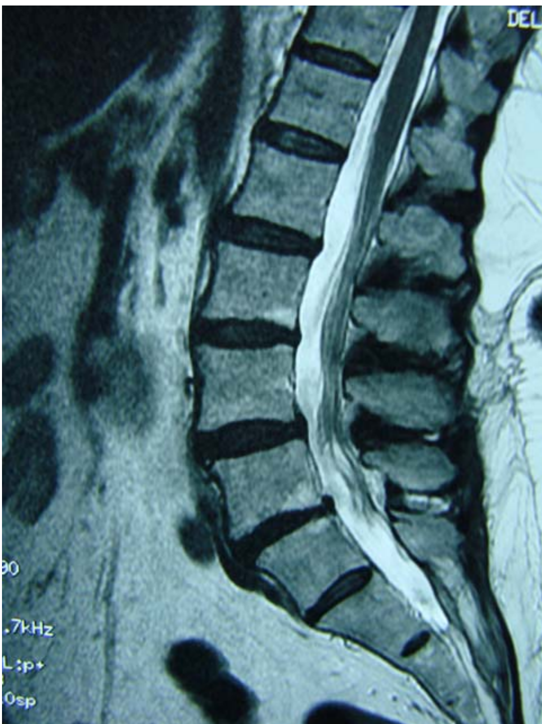

Figure 7: *Sagittal T2 weighted study showing degenerative spondylolisthesis of L3 and L4 with the transitional L5 segment. Also note the patent vertebral canal with absence of ligamentum flavum hypertrophy.*

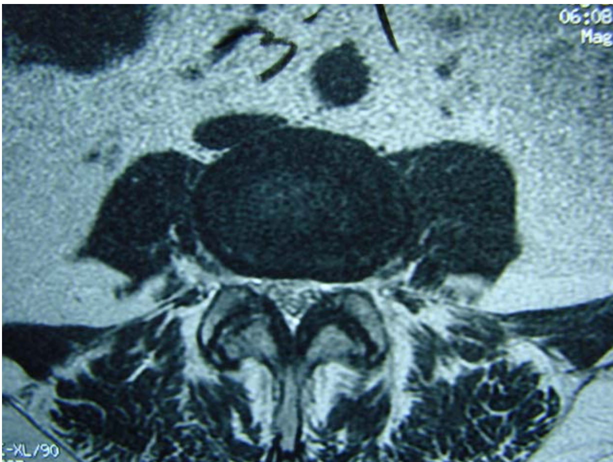

Figure 8: *Axial T2 weighted study showing facet degeneration and a broad based disc bulge with bilateral foraminal stenosis. Note high intensity zones within both posterolateral disc annular peripheries.*

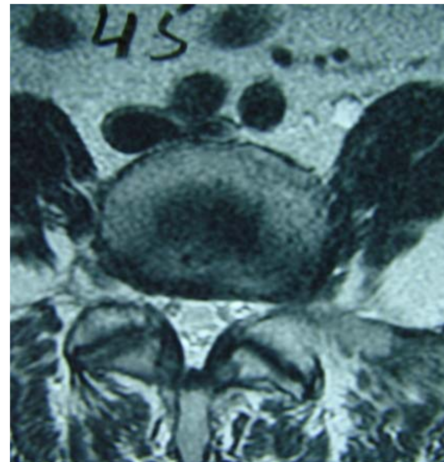

Figure 9: *L4-L5 T2 axial image showing bilateral stenosis, much more noted on the left than the right side due to endplate hypertrophy and disc protrusion.*

Treatment consisted of Protocol 1, flexion distraction applied at the L3-L4 level followed by trigger point treatment and both positive galvanism and tetanizing currents applied at the L4-L5 level to the right posterior hip muscle group (gemelli inferior and superior, obturator internus, and piriformis muscle insertions into the retrotrochanteric bursa). Due to the intense pain, this patient also had a second and third epidural injection. This combination of treatments reduced the pain from VAS 10 to a VAS of 1 in 8 visits.

Outcomes: From October 7th to November 30th, the patient is treated and observed for return of pain. On October 21, 2011 the pain returned about 50% into the right buttock, thigh and leg. Nine visits relieved the pain from a VAS of 6 to a 1.

On December 2, 2011 a neurosurgical consultation was held and the neurosurgeon recommended continuing our form of treatment while he held foraminotomy at the right L4-L5 and L3-L4 levels as an alternative treatment in the future.

With continued treatment, within a week after the neurosurgical consultation, the patient's low back and leg pain were reduced to a VAS of 1.

On December 27, 2011 the patient had no low back or leg pain. From this point on we will be observing for return of pain and any future need of epidural steroids with manipulation of the Cox® Technic Flexion-Distraction type to be given.