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## CASE REPORT: SEQUESTERED L5-S1 DISC

History/Chief Complaint: 49-year-old white male is seen for the chief complaints of low back and left lower extremity pain, which started 4 months previously following bending over at the waist. He first had low back pain, which started one week later with pain down the left lower extremity, which continued to increase. He describes the pain as being present during standing, bending, lifting, climbing, carrying, doing house hold chores, gardening, running, jogging, and sleeping. The Oswestry index is 48 with the VAS score as leg pain at a 10 at its worse and 4 at its least, the average pain being a 7 of 10.

**Examination:** Examination reveals a positive Minor sign for both low back and left lower extremity pain, positive Bechterrew's sign, the patella reflex on the left is zero while the right patellar and bilateral ankle reflexes are plus two. The patient can toe and heel walk normally. Marked pain on palpation's noted at the L5-S1 level radiating into the left posterior hip muscle group. Ranges of motion are limited to 40 degrees flexion, 15 degrees extension. Straight leg raise sign supine is positive at 30 degrees on the left with Braggard very positive. There is no weakness noted on dorsi or plantar flexion of the foot or great toe.

**Imaging:** Imaging is shown in Figures 1, 2, and 3. You will note that there is a very large free fragment of nuclear material lying posterior to the first sacral segment representing a free fragment from the L5–S1 disc. You will also note the marked retrolisthesis of L5 on sacrum. The axial image shows the large disc fragment compressing the cauda equina centrally. Also, note the L4–L5 disc protrusion seen on sagittal image.



Figure 1: Sagittal image showing the large left paramedian free fragment sequestration of L5-S1 disc lying posterior to the first sacral segment, contacting the cauda equina



Figure 2: Closer sagittal image of the large sequestration of L5-S1disc lying posterior to the first sacral segment contacting the thecal sac. Also note the L4-L5 disc bulge. L5 is in retrolisthesis subluxation on sacrum by 9 mm.

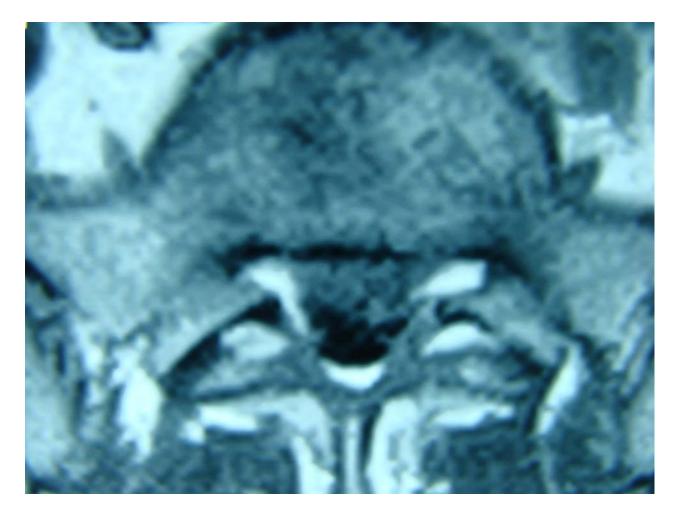


Figure 3: Note the large central, slight left, L5-S1 disc fragment compressing the cauda equina

## Diagnosis:

- 1. A large paracentral left L5-S1 herniated disc with extrusion and free fragment is noted accompanied by degenerative changes at the L5-S1 level and a retrolisthesis subluxation.
- 2. Mild bulging discs are also noted at the L3 and L4 levels with discogenic spondylosis throughout the lumbar spine.

## Treatment:

This patient is referred from another chiropractor to our clinic. This patient gained most relief by lying in the fetal position. Flexion distraction decompression of the L5–S1 disc space was instituted with protocol 1. On the third visit, the patient stated that the left calf pain was very mild and was easing for him. He continued to have pain while trying to sleep at night however. Patient was treated daily and on the sixth visit had stated that he

had no low back pain, just left lower extremity pain but it was localizing to the hip and calf muscles with centralization of the pain from the foot and into the calf and thigh.

This patient was treated daily for two weeks with the end result being a reduction of the pain from a VAS of 7 to a VAS of 2 in the leg and 1 in the hip. Therefore the patient attained over 50% relief of pain with 8 visits in two weeks of care. At the end of six weeks his VAS score was 1 for hip and left lower extremity pain and, against advice from our clinic, he was working as a concrete finisher.

Electrical stimulation consisting of positive galvanism into the L5-S1 disc fragment followed by tetanizing currents into the left lumbar paravertebral and posterior hip muscle groups with application of ice was also given. The patient continued to use ice on the low back and left lower extremity at home three to four times a day for thirty minutes at a time. He did the first three stabilization exercises until 50% relief of sciatic radiculopathy, at which time time he began the first five exercises to include abdominal muscle strengthening and hamstring stretch as the sciatic nerve relief allowed.

This case is presented to demonstrate the clinical treatment and outcome of treating a large L5–S1 disc prolapsed sequestration with Cox® flexion distraction and decompression adjusting procedures.

Respectfully submitted, James M. Cox, D.C., D.A.C.B.R. May 21, 2008 www.coxtechnic.com

