

**SunCoast SpineCare**

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**MARKED SPONDYLOSIS, LEFT LOW BACK AND BUTTOCK PAIN WITH L1-L4 DISC HERNIATIONS**

submitted on January 25, 2019

CHIEF COMPLAINT

Patient was initially seen on 12/27/18 and complained of fairly constant lower back pain radiating into the left buttock. The pain was rated a 6/10 and she also felt it in the left lateral thigh. She has had intermittent lower back pain for 40 years and had been to a chiropractor in Michigan for relief. She went to him prn. She found that yoga provided some temporary relief along with exercises and chiropractic. This episode started 6 weeks ago after coming here, she moved some tubs and felt the pain. She went to a chiropractor about 11 times without relief noted. She denies paraesthesia or numbness. Last year she had pain and went to a chiropractor with relief noted. She didn't go back because she could not afford it. There has been no diagnostic workup lately.

She could sit or stand without pain for about 20 minutes before feeling pain. She walked about a mile daily with pain. She couldn't sit at the computer for longer than 20 minutes.

PAST HISTORY

Crohn's Disease, hypertension, severe anaphylaxis to black flies, ALLERGIC to Keflex and Augmentin.

MEDICATIONS

For Crohns: Apriso, entyvio infusion, hydrochlorothiazide, Cardizem, vit B12, EpiPen, lotemax eye drops, Centrum multi, vit C, low dose aspirin, glucosamine and chondroitin, fish oil, folic acid, Ca, D3, Probiotic, Mg, Flonase, generic Sudafed, clortrimetron.

EXAMINATION**SURGERY**

3 bowel resections, two nasal surgeries, C5-6 fusion, hysterectomy.

OBJECTIVE:

LUMBAR (low back) ROM (range of motion) was compared to the following normal values:

Flexion / 90 degrees

Extension / 30 degrees

Left lateral flexion / 35 degrees

Right lateral flexion / 35 degrees

Left rotation / 30 degrees

Right rotation / 30 degrees



Pain elicited upon extension, right rotation, left and right lateral flexion.

Mrs. M reported no increase in symptoms in her lumbar region during Valsalva's maneuver. Kemp's Test was positive on the left and right with increased symptoms reported bilaterally and is considered positive when low back pain radiates into the lower extremity, indicating facet syndrome, fracture or disc involvement.

- Toe Walk Test was performed and was normal.
- Heel-Walk Test was normal bilaterally.
- Hibbs test was normal.
- Laguerre's was negative bilaterally.
- The Lasegue (Straight Leg Raise) Test was negative bilaterally.
- Bechterew's Test was positive on her right and left side, sometimes called the seated straight-leg raising test, it suggests bilateral compression or IVD protrusion or herniation.
- Milgram's Test was abnormal bilaterally indicating pathology within or outside the spinal cord sheath, such as a herniated disc.
- Spinal Percussion was abnormal with increased pain in the lumbar region at L2-3.

NEUROLOGICAL TESTING

Muscle strength was normal in the upper and lower extremities at 5/5 bilaterally, the upper and lower deep tendon reflexes were normal at +2 bilaterally in her biceps, brachioradialis, triceps, Patellar and Achilles and her superficial sensation was normal and equal when tested with a pinwheel in the upper and lower extremities over her C5, C6, C7, C8, T1, L4, L5 and S1 dermatomes. Babinski sign absent.

- Comprehension and speech intact.
- Cerebellar signs-Romberg sign of 4 positive. No dysmetria.
- Double Simultaneous Stimulation intact
- Pallesthesia (Vibration) intact
- JP intact
- Topesthesia intact
- Tremors absent
- Involuntary movements absent
- Gait-normal
- Coordination- finger to nose normal, heel to shin, fast finger movements and alternate movements normal
- Graphesthesia intact
- Cortical Functions:
- Patient is alert and oriented X3.

Cranial Nerves:

I - deferred

II- visual acuity deferred. Pupils equal, reactive to light and accommodation.

III, IV, VI-extraocular movements normal

V-normal and equal facial sensation, normal muscles of mastication.

- VII- normal movement of the forehead of mouth (muscles of expression), orbicularis oculi
- VIII-hearing appears normal
- IX-uvula movement normal
- X-normal gag reflex
- XI-normal trapezius and levator scapulae shrugging
- XII-Tongue protrusion symmetrical

Soft tissue palpation findings were normal except for tenderness, trigger point activity muscles of the left lumbar area and muscles of the right lumbar area. Gluteal, ischial and Si tenderness on the left, gluteal on the right. Tenderness left cervical paraspinal muscles and right cervical paraspinal muscles.

ASSESSMENT

PATIENT'S WORKING DIAGNOSIS LIST

- M99.3 Lumbar subluxations
- M51.16 Lumbar Intervertebral disc disorder with radiculopathy L1-L4
- M54.32 Left sided sciatica

IMAGING

Patient was referred for an MRI of the Lumbar spine (See Figure 1.) which demonstrates:

- L2-3 Disc bulge and shallow central and right paracentral disc protrusion. Mild lateral recess and slight central canal narrowing. Mild facet arthritis.
- L3-4 Annular disc bulge and small central protrusion. Mild lateral recess and central canal stenosis. Slight effacement of the L3 foramina without mass effect on the L3 nerve roots.
- L4-5 Disc bulge with mild lateral recess and slight central canal narrowing. Right foraminal protrusion abutting although not clearly effacing the right L4 nerve root. Changes opposite site of current stated symptoms. Facet arthritis mildly effacing the left L4 foramen without apparent mass effect on the left L4 nerve root.
- L5-S1 Disc Bulge and mild facet arthritis. No central or lateral canal stenosis with slight effacement of the exiting L5 nerve roots.



Figure 1. MRI

TREATMENT PLAN

SHORT TERM TREATMENT GOALS:

The goal was a minimum of 50% improvement in her pain with less frequent pain and able to sit at the computer for 30 minutes without pain and walk 1/2 mile without pain. If no change within two weeks, an EMG/NCV of the lower extremities would be performed.



TREATMENT:

The treatment consists of Cox lumbar distraction protocol 1 and electrical muscle stimulation to her lumbar paraspinal muscles. The Cox distraction is being performed to L2-S1.

CLINICAL OUTCOME

After her first treatment, Mrs. M walked to the front desk and felt immediate relief of her symptoms. On the following visit, she stated that she felt good the next day but by that evening the pain had returned. Subsequent to that she would receive almost immediate relief and the relief extended to the following day and night. It was returning two days when she was scheduled for her next appointment. On her 5th visit she reported that she had no pain for 3 days.

DISCUSSION

The MRI demonstrates slight effacement, at best of the nerve roots L3, L4, L5. Her symptoms were on the left. Is this a case of definite radiculopathy? I can't answer the question, although I tend to doubt it. I personally believe that she has derangement of the annular fibers possibly causing a chemical radiculopathy or we also cannot forget that the sinuvertebral nerve can easily be affected simply by degeneration of the spinal discs. The meningeal branches of the spinal nerves or the sinuvertebral nerves are several small nerves that branch from the spinal nerve near the origin of the anterior and posterior rami, but before the rami communicantes branch. They then re-enter the intervertebral foramen and innervate the facet joints, the annulus fibrosis of the spinal discs and the ligaments and periosteum of the spinal canal, carrying pain sensation.

The patient does not have frank herniations. She does have marked spondylosis. I believe that irritation of the sinuvertebral nerve is the most logical explanation for the patient's symptoms, either within the annular fibers or the facet joints. Since Cox Distraction has most of its effects on these two structures, we can deduce that this theory is as good as any.

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REFERENCES

- Gudavalli R, Potluri T, Carandang G, Havey RM, Voronov L, Cox J, Rowell R, Kruse R, Joachim G, Patwardhan A, Henderson C, Goertz C: Intradiscal Pressure Changes during Manual Cervical Distraction: A Cadaveric Study. *Evid Based Complement Alternat Med.* 2013; 2013: 954134. Published online 2013 Aug 20. doi: 10.1155/2013/954134
- Gudavalli MR: Estimation of dimensional changes in the lumbar intervertebral foramen of lumbar spine during flexion distraction procedure. *Proceedings of the 1994 International Conference on Spinal Manipulation.* June 10-11, 1994, Palm Springs, CA, p 81
- Gudavalli MR, Cox JM, Baker JA, Cramer GD, Patwardhan AG: Intervertebral disc pressure changes during a chiropractic procedure. Presentation and publication at the ASME IMECE 97 Bioengineering Convention, November 16-21, 1997, Dallas, Texas. - *Advances in Bioengineering 1999; BED, vol. 39, pgs 187-188*
Cox JM: The facet syndrome. *Digest of Chiropractic Economics.* XXII (1) (July-August 1980)
- Kruse RA, Imbarlina F, DeBono VF: Treatment of cervical radiculopathy with flexion distraction. *J Manipulative Physiological Therapeutics* 2001;24(3):206-209