

RAPID ONSET STENOTIC CHANGES

Doctors: Here is an interesting case of progressive stenosis over a 10 month period due to developing facet hypertrophy and ligamentum flavum hypertrophy.



Figure 1

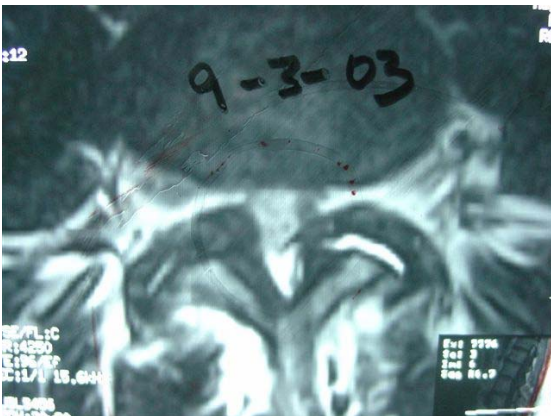


Figure 2



Figure 3



Figure 4

Note from the axial 12-31-02 image in Figure 1 to Figure 2 in 9-03 -03 how the vertebral canal has stenosed due to facet and ligamentum flavum hypertrophy. Figure 3 is the sagittal view of the patent canal in 12-31-02 and Figure 4 is the stenosis due to ligamentum flavum and facet hypertrophy when seen in 9-03. The patient's symptoms exacerbated to bilateral leg pain in the same period. Interesting how quickly stenosis can set in; we must consider this progressive degeneration in patients with new signs and symptoms of nerve root or dorsal root ganglion compression or chemical radiculitis. In this case the changes resulted in spinal fusion at L4-L5 which did not yield the relief the patient desired.

History: In August 2004, following surgery and at the suggestion of her orthopedic surgeon, this 52 y/o woman was seen complaining of anterior and posterior thigh and leg pain showing a VAS of 8 at night. This is the distribution of the fifth lumbar nerve root and dermatome. She was in a motor vehicle accident in 1984 that caused low back pain. In 2000 she saw an orthopedic surgeon for low back and leg pain but no surgery was performed. She had physical therapy, saw a physiatrist, and worsened. She saw a chiropractor for DRS traction. None of this helped her. She had a spinal fusion of L4-L5 on 9-23-03 for left lower extremity pain which gave no permanent help. She now is seen with deep calf pain to the anterior ankles as well as low back and anterior thigh and leg pain. Bechterews is positive for lower extremity pain. Left and right ankle deep tendon reflexes are 0/2, and the patellar are 2 bilaterally. Kemps sign is bilaterally positive. Pain on palpation is noted of the L5-S1 level radiating to the tensor fascia latae, gluteus maximus and medius, piriformis, adductors bilaterally. Pinwheel sensation is normal. Ranges of motion are not able to be performed due to pain. Straight leg raise is positive at 30 degrees bilaterally for lower extremity pain. No motor weakness is noted of the dorsi and plantar flexors of the ankle and great toe. All extension testing of Yeoman, Ely, Nachlas, prone lumbar flexion of Dyke and Pheasant are positive for bilateral low back pain.

In August, 2004, following workup, our decision was that a CT scan be performed to evaluate origin of the fifth lumbar nerve root dermatome pain. She returned October 27, 2004, following seeking other opinions and consideration of our suggestions. A change in clinical presentation is seen. Now her chief complaint is left first sacral nerve root pain with the low back pain being a VAS of 6 and the left leg pain an 8 on the VAS. This lady is intelligent, a school teacher, and concerned over her future. The CT was performed on November 2, 2004, of the lumbar spine to evaluate the presence of stenosis changes.

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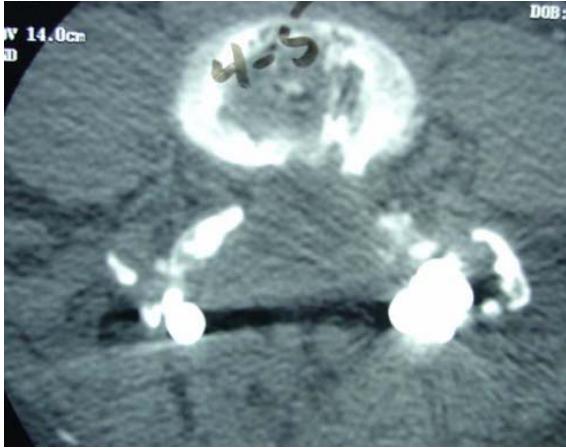


Figure 5

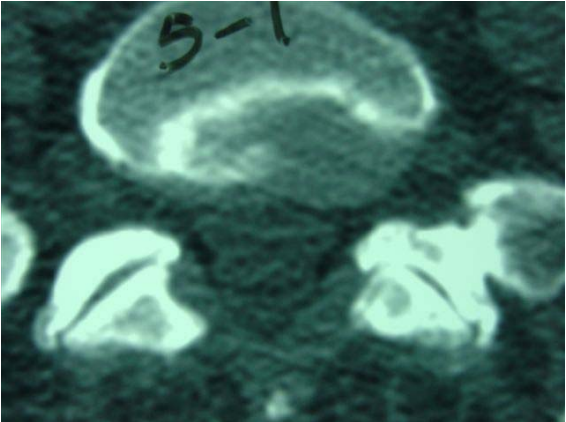


Figure 6



Figure 7

Figure 5 is the axial CT image at the L4-L5 level showing the decompressive laminectomy and Figure 6 shows the L5-S1 herniated left disc causing stenosis of the lateral recess and osseoligamentous canal which could compress the fifth lumbar nerve dorsal root ganglion. Figure 7 is the L3-L4 disc level showing broad based disc bulging that narrows the sagittal diameter of both the vertebral and lateral recess osseoligamentous canals bilaterally without focal herniation or stenosis. I need to point out that the radiologist who read this CT scan read it as normal, with the fusion at L4-L5 and no sign of stenosis or disc herniation or stenosis. I offer to you if the L5-S1 disc appears normal. Always read your patient's MRI in addition to the radiologist's report.

Treatment was given consisting of protocol I long y axis decompression adjusting of the L5-S1 disc followed by positive galvanic current and ice for 12 minutes to relieve edema and sedate inflamed nerve tissue at L5-S1 on the left side. Gentle home active exercises of knee chest, abdominal tightening and slow gentle hamstring stretching is instituted. Treatment frequency was three times a week for four to six weeks with reexamination and new treatment plan and goals to be set. She is told that 50% relief of her pain would be a good clinical outcome.

The first adjustment on October 27, 2004, increased her lower extremity pain. The second visit resulted in no change in her pain. The third visit resulted in centralization of the left lower extremity pain to the knee with low back pain. On the fourth visit she stated she had diminished low back pain and less left hip and thigh pain. On the fifth visit she feels so good she missed an appointment. We discussed compliance, and she was started on Discat Plus which is chondroitin and glucosamine sulfate and also on non phosphorous calcium citrate with hydrochloric acid. On November 10, the sixth visit, she had no leg or hip pain, only low back pain. She is treated with Protocol I, and the electrical stimulation is galvanic current into the L5-S1 disc and nerve root for 10 minutes followed by tetanizing currents to the L5-S1 paravertebral level and the left sciatic nerve at the sciatic notch. Ice is applied with the electrical stimulation. In six Cox® decompression adjustments with therapy, the left leg and low back pain was relieved.

On November 11, 2004, right lower extremity pain with a VAS score of 7 and low back pain is presented. She is treated with decompression long y axis decompression, but the right L5-S1 level is treated with electrical stimulation. Five days later there is 50% relief of the leg pain which is now centralized to the low back and right hip. Bilateral anterior thigh pain to the knees is a complaint. L3-L4 is also decompression adjusted with protocol I. On November 19, 2004, the right lower extremity pain returned which is called a minor aggravation. On November 23 the right lower extremity pain returns in the left fifth dermatome distribution to the dorsum of the foot and great toe. On November 24, 2004, the right leg pain is gone and the left hip hurts but is minor pain. On November 26, 2004, both right and left lower extremity pain returns at a VAS of 6. On November 29, 2004, the low back pain is 30% reduced, left lower extremity pain 35% reduced and the right leg pain 50% reduced. The pain does not extend below the knees and is centralizing. On December 1, 2004, the pain is only in the right lumbar spine and is sharp pain. On December 3, 2004, the right lower extremity pain is 9+ on VAS. On December 6, 2004, the pain in the right leg is a 5-6 VAS and on December 8, 2004, is decreasing in the right lower extremity. On December 10, 2004, she complains only of low back and right hip pain of VAS 6-7. On December 13, 2004, she complains of increased right lower extremity pain and left hip pain of a VAS 6-7. On December 15, 2004, the low back pain and right leg pain is a VAS 6. On December 16, 2004, she asks about an epidural steroid injection because her friend has gotten relief from one. It was agreed that she could do that. She does acknowledge relief of her leg

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pain and cramping of the legs. Again it is reiterated that the goal is 50% relief of pain with any greater than that being a clinical bonus. She receives the Protocol I decompression adjustment and electrical therapy on December 20, 22, and 23, 2004, with total relief of her lower extremity pain, complaining only of low back pain considered a 7 on VAS.

She is next seen January 13, 2005. She did get an epidural steroid injection, but her left leg pain and cramps have returned, and she states that she notices she does not feel as well without our decompression adjustments and treatment. She was treated from October 17 to December 23, 2004, for a total of 25 visits with total relief of her leg pain and only low back pain remaining. Our clinical outcome goal was 50% relief of pain which she far exceeded. My plan, along with my son who is the primary physician in this case, is another 6 to 8 weeks of continued care that will consist of increasing active home rehabilitation, low back wellness school ergonomics of lifting, conditioning exercises as treadmill, and continuing Cox® exercises with physioball and proprioception training. Her surgeon will be pleased with this outcome, and this patient will well exceed our goal of 50% relief of care. At the end of passive care, I will suggest supportive care at 3 week intervals. Also this patient needs conditioning as she has been a deconditioned body type for a long type. Without conditioning, maximum relief cannot be attained. As you know, patients do not always like this concept - they would like a pill, a surgery, an adjustment to do it all...not feasible oftentimes.

As you read this case, you will relate to it. Every chiropractor sees this case. It is mandatory that we produce positive clinical outcome within a relatively few visits in these serious cases, else they go elsewhere. One reason is that they are so disgruntled with their pain that they are anxious and short on understanding. I am happy to have Cox® decompression adjusting in this case as I feel it is the foundation of our relief.

Respectfully submitted,
James M. Cox, D.C., D.A.C.B.R.