

HAVE YOU EVER HAD A PATIENT WHO WANTS TO RUN HIS/HER OWN CARE AND THE OUTCOME IS LESS THAN YOU, OR S/HE, WOULD WANT?

A 43-year-old, white, married female schoolteacher is seen in May 2002 for the chief complaints of cervical spine and right arm pain, which she has had off and on for the last 15 years. In the last 6 weeks it has gotten much worse.

History shows that she has had ear infections, twice with rupture of the tympanic membrane. Her vital signs are normal otherwise. No other part of her history or examination is pertinent. She does not have night pain.

Examination in 2002 revealed full range of motion of the cervical spine, tenderness to palpation at the C4 through C7 levels and C2, as well as T1 through T4. Right upper extremity hypesthesia of the C5 and C6 dermatomes was noted. The deep tendon reflexes of the upper extremity were +2 bilaterally. The Babinski was down going. The muscle strengths of the cervical spine were grade 5 of 5. Cervical compression was negative. Muscle strengths of the upper extremities at the biceps, triceps, deltoid, wrist extensors and flexors, and interossei were grade 5 of 5. No signs of vertebral artery syndrome were present. There was dermatome numbness and pain in the C5 and C6 distribution. Thoracic outlet signs were negative.

Figures 1 through 3 shows the plain x-rays of the cervical spine taken in 2002 showing moderately advanced C6-C7 degenerative disc disease with foraminal narrowing due to posterior hypertrophic bone changes. The diagnosis in May 2002 was C6-C7 degenerative disc disease with foraminal stenosis due to endplate hypertrophy.



Figure 1: Note the anteroposterio cervical x-ray study shows left lateral flexion of C5 on C6 with evidence of posterior endplate hypertrophy at the C6 level.



Figure 2: Note the reversed sagittal curve and the C6-C7 degenerative disc changes. C4 is in flexion subluxation on C5.



Figure 3: Oblique view reveals posterior endplate hypertrophic changes into the right osseoligamentous canal which creates spinal stenosis within the mid and upper area of the canal which is the location of the dorsal root ganglion. Note the loss of C6-7 disc space height. Compare the foraminal outline of C6-C7 with the superior levels which are Norman.

Treatment was given in 2002 using Cox® long y-axis decompression at the C6-C7 level. This treatment was administered in 2002 6 times in a 2-week period of time with a result that the patient was relieved of the numbness and pain in the cervical spine and right arm. She had been advised to be treated 3 times per week until 50% improved, then twice per week until 50% more improvement, and then once per week until another 50% improvement was relieved, and she would be treated for a total of 3 months. Typical of so many patients, she assumed that the absence of pain meant that she was healed. She did return one month later for headaches, neck pain, and mild right arm pain. After 3 visits this was again relieved and she discontinued care.

In June 2003, she was seen one time for neck pain and ear infection, but she had no arm pain. In June 2004, she returned with neck pain and a complaint of numbness in the right arm in the last week. She was treated, did not again because she felt better until January 2006 at which time she returned with a complaint of numbness in the right upper extremity for 3 weeks. Exercises had only been somewhat effective at relieving it. After two visits, the pain increased after she carried her 40-pound son. The numbness and pain in the right arm also was causing her to not sleep at night.

An MRI was ordered in March 2006 due to the worsening and persistent symptoms of right upper extremity dysesthesias. Figures 4 through 7 show that MRI. You will note that there is moderate degenerative disc disease from C4 through C7. The C6-C7, Figure 5, level shows mild spinal and moderate bilateral foraminal narrowing, mostly on the right side due to diffuse disc bulging and osteophytic ridge formation with prominent uncinete process hypertrophy which causes this bilateral foraminal stenosis. This also creates mild spinal stenosis at the C6-C7 level. The C4-C5 level, Figure 6, shows mild bilateral foraminal narrowing due to degenerative disc disease. Compare Figure 7, the C5-6 axial image which is devoid of the stenotic changes noted at the adjacent levels.



Figure 4: Note the C6-C7 posterior disc protrusion which contacts the spinal cord. Also there is anterior disc protrusion at this level. Also note that the C4-5 disc shows posterior and anterior protrusion. The C5-6 disc shows mild loss of height with a small posterior disc bulge. Also note that C7 is anterolisthesed on T1.



Figure 5: The C6-C7 level shows mild spinal and moderate bilateral foraminal narrowing, mostly on the right side due to diffuse disc bulging and osteophytic ridge formation with prominent uncinete process hypertrophy which causes this bilateral foraminal stenosis. This also creates mild spinal stenosis at the C6-C7 level. Compare this with the radiographic study in Figures 1-3 for comparison of plain film findings to MRI.

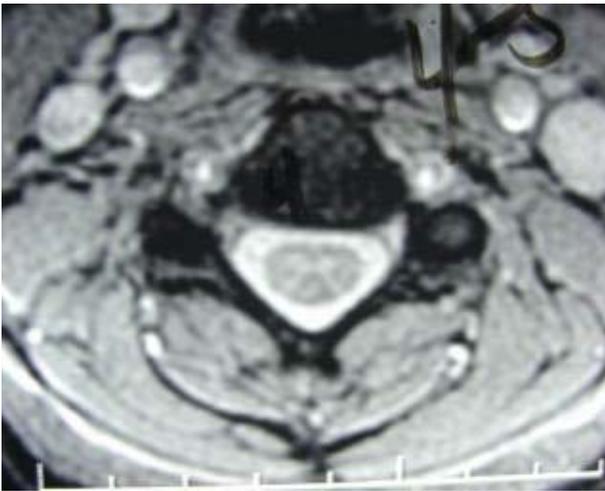


Figure 6: C4-C5 level shows mild bilateral foraminal narrowing due to degenerative disc disease.

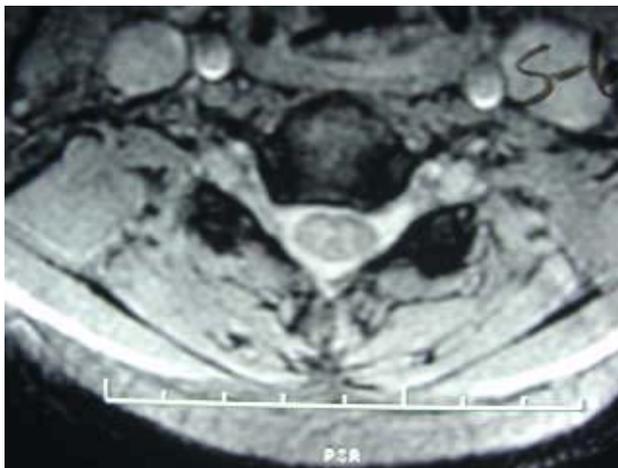


Figure 7: Note the C5-6 disc level shows minimal left endplate hypertrophy and patent vertebral and osseoligamentous canals. This is good contrast to the stenotic C6-7 level for comparison.

At this time, cervical compression, Soto-Hall and distraction testing is all positive for neck and arm pain. The deep tendon reflexes of the upper extremities do continue to be +2 and no motor weakness is noted.

With this confirmed MRI diagnosis of stenosis at the C6-C7 level, treatment was recommended on a regular basis until 50% relief is attained. After the treatment on March 9, 2006, the patient reported 5 days later that her right arm had markedly decreased, she was sleeping better, and her neck pain had decreased. At that time I did discuss with the patient that her condition was not something that we cure, but rather control, and that she would need to carry out her part in getting well, meaning that she would have to keep her appointments, do her exercises, and take her Discat Plus for disc integrity.

After 3 visits in March 2006, this patient is totally asymptomatic and tends to still want to control her treatment by only coming in when symptoms persist. As all of us know, this type of sporadic care may lead to worsening of her stenosis signs and symptoms, greater difficulty in relieving this condition in the future, and increase in possible surgical need.

This author does not know the total formula for impressing upon the patient that prevention is the best form of care for this type of cervical spine. I would venture to say that many of you have been in this same position. Luckily, long y-axis decompression does a suitable effort in relieving these symptoms. In this author's opinion, it is the best form of care for spinal stenosis and disc herniation in the neck.

Respectfully submitted,

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3-23-06

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