SPINAL CORD EDEMA AT CERVICAL DISC HERNIATION LEVEL … ***updated!***

Figure 1

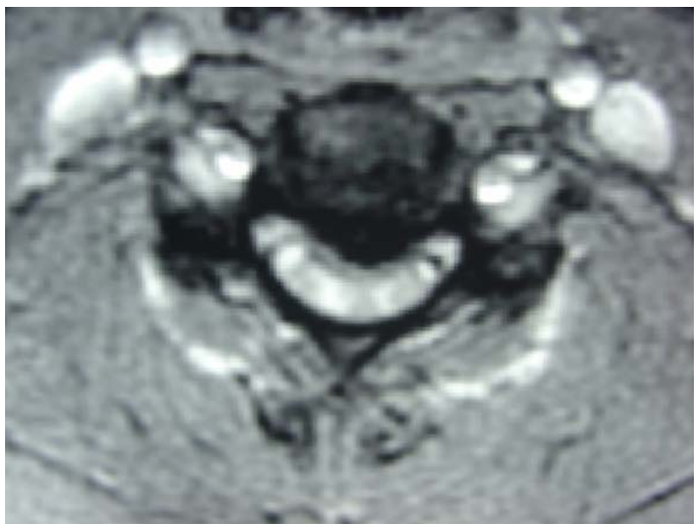

Figure 2

Figure 1 is a sagittal MRI showing disc protrusion at the C4-C5 and C5-C6 levels in a 38 year old male with bilateral ulnar nerve pain. Note the cord edema posterior to the C5-C6 disc herniation. Figure 2 is the axial image showing the large C5-C6 disc herniation impinges the spinal cord. A neurosurgeon recommended anterior cervical spine discectomy and fusion. The patient did not submit to the surgery and is being treated with axial decompression manipulation with the understanding that surgery may be necessary if one month of care is not yielding of at least 50% relief.

History is of a 38 year old man seen on 8-5-04 for neck pain and radiating pain into both upper extremities in the distribution of the ulnar nerve with a VAS score of 5. The pain is worse in the morning with numbness of both 4th and 5th fingers. This pain started in April, 2003. He works as a goldsmith which makes the pain intensify. He has seen a surgeon who offered surgery with anterior interbody fusion. Examination reveals normal vital signs. Ranges of motion of the cervical spine are 60 d flexion, 35 d extension , 15 d bilateral lateral flexion, and rotation of 80 d. bilaterally. Hypesthesia of the right C8 dermatome is noted compared to the left side. No motor weakness of cervical muscles is noted. The deep tendon reflexes of the upper extremities are plus 2 globally. Cervical compression is negative. No carpal tunnel signs are present. No weakness of the deltoid, bicep, or triceps muscles is noted.

Diagnosis is C4-C5 and C5-C6 intervertebral disc protrusions with cord edema posterior to the C5-C6 disc herniation. Ulnar radiculopathy is bilateral, not meeting the level normally seen with the disc herniations, but Slipman did point out the diverse and not mandated findings of dermatomes to disc herniation level.

Treatment consists of long y axis decompression distraction in our clinic with protocol I as described in my textbook. Positive galvanism is applied to the C4 and C5 disc levels and the ulnar distribution of both arms. This is followed with tetanizing current. Ice is applied with the electrical stimulation. He is treated 9 times between August 6 and August 27, 2004 with the clinical outcome of no pain, just numbness in the hand distribution of the ulnar nerve. It is also necessary to point out that he also complained of low back pain which was diagnosed as discogenic spondylosis at L4-L5 and given long y axis decompression distraction with mobilization of the facet joints and this resulted in total relief of low back pain in four visits.

11-10-04 update on this case

The patient was treated from August 5, 2004, until September 20, 2004. Treatment consisted of long y axis decompression distraction in our clinic with protocol I as described in my textbook. Positive galvanism was applied to the C4 and C5 disc levels and the ulnar distribution of both arms. This was followed with tetanizing current. Ice was applied with the electrical stimulation. He was treated 9 times between August 6 and August 27, 2004, with the clinical outcome of no pain, just numbness in the hand distribution of the ulnar nerve. At that time his VAS score for cervical spine pain was zero to two and the ulnar nerve numbness was a VAS of 3. It is also necessary to point out that he also complained of low back pain which was diagnosed as discogenic spondylosis at L4-L5 and given long y axis decompression distraction with mobilization of the facet joints and this resulted in total relief of low back pain in nine visits.

After the first three weeks of care and relief, the numbness in the ulnar distribution and the cervical spine pain stayed at a VAS of 2 to 3. At the sixth week of care, there was increase of numbness of the ulnar nerves, cervical, thoracic, and low back pain. His insurance coverage would not cover any further chiropractic care and with the symptoms exacerbating, surgical consideration was revisited. The patient had a C4-C5 and C5-C6 disc removal with surgical plate and screw fixation. This surgery was performed in October 2004 and a month later his left arm was free of numbness and the right arm 50% relieved.

Cases such as this need co-management with neurologists and surgeons. Myelopathy with myelomalacia must be carefully examined for progressive neurological deficit and the knowledge of early intervention for the best clinical outcome. This case showed relief, no progressive neurological deficits, just the numbness in the ulnar nerve bilaterally at the hand and wrist. It was stressed by his neurosurgeon on first examination and report of findings that with myelopathy, many patients do not regain all function. Future studies will address conservative care of myelopathy as seen in this case.

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