

Guest Case Presentation: “The Mother of All Disc Herniations: Multilevel Disc Herniations”

Introduction:

Stuart Rosenthal, DC presents an extremely large cervical disc herniation that was felt to be a surgical case. It yielded to distraction reduction treatment. It is with professional acknowledgement that this case is presented. One point of interest: note that Modic said that the size and location of the disc herniation means little if anything. This is an excellent example. A huge disc, which responds well to the basics of distraction adjustment. Only clinical examination can determine the signs, symptoms, and severity of a disc herniation and/or stenosis.

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

Treating Physician’s Note:

I want to thank Dr. Cox for letting me share this most interesting case. I would wish that all Chiropractors practicing Distraction Manipulation would see a case like the one that is going to be presented. I have been utilizing MRI and CT scanning since it’s inception. I must say that I agree with Dr. Cox that this is truly the “Mother of all Discs”. Enjoy the case with as much enthusiasm as I did treating this most special herniated disc. Stuart Rosenthal, DC

History:

Mrs. M is a 39-year-old white married female who emigrated from the Portuguese island of St. Michael, Azores approximately 25 years ago. She works in a factory that manufactures metal products and her job requires her to lift up to 20# of metal from the floor to her bench. She was first seen in my office in November of 1990 c/o of neck pains, dizziness and headaches from an auto accident on 10-25-1990. She was transported to the local hospital via ambulance and seen in the E.R. where she was x-rayed, examined, told to take aspirin, use hot packs and released. She did follow up with her primary before entering my office.

Examination:

My exam, at that time, revealed approximately 2/3 AROM in all planes in the cervical spine, Foramina compression positive bilaterally; upper extremity DTR’s and pinwheel were WNL. X-ray evaluation revealed straightening of the normal cervical lordosis.

Treatment:

A treatment plan of manipulation and electrical stimulation worsened her after 2 visits and an MRI was ordered. It revealed a small disc bulge @ C-4/5, 5/6, & 6/7. I changed her treatment plan to distraction of the cervical spine & electrical stimulation which helped improve her status. She treated thru May of 2001 and was dismissed. She returned with exacerbation in May of 1992 and she treated for 3 months with the above plan and was again dismissed as MMI. She was seen two times in 1993 and one time in 1994. I did not see her again until 6-4-2003. She stated that 3 weeks prior, she was feeling the neck pain again with it radiating into her rt. shoulder. I returned to axial manipulation and E. Stim. but after 4 visits her symptoms did not abate so I ordered a new MRI of her neck.

Results of the MRI report are as follows: See the included images.

“There is anterior spondylosis at C-3-4, 5-6, and C6-7 with mild kyphosis at C5-6. At the C5-6 interspace level, there is a focal central rt. Disc herniation that invaginates into the ventral surface of the cord and results in some canal stenosis. The disc herniation is extruded upward behind the central aspect of the C5 vertebral body. Hyper intensity is present within the cord at C5 level which may represent cord edema or early **myelomalacia**” (emphasis added).

“At C6-7, a disc herniation is extruded into the right lateral recess and with lateral aspect of the cord with mild canal stenosis.”

“A left paracentral disc herniation at C4-5 touches the ventral surface of the cord. Additional left paracentral disc herniation at C3-4 slightly flattens the ventral surface of the cord.”

“Dr. Rosenthal was notified 6-16-03. by the radiologist”

Treatment:

I notified Mrs. M. that I received a call from the Radiologist to have her seen immediately by a Neurosurgeon for disc surgery. She discussed with me, while crying, that she did not want surgery and was there anything I could do for her. By this time, I had taken Part 1 of the Cox Flexion/Distracton course and was scheduled for Part II in Chicago in the latter part of June. I had also obtained the new Cox table. Protocol 1 was administered to the patient with the head straps on. I contacted the spinous processes of the above-mentioned discs individually from C-6 up to C-4 with distraction and flexion. E. Stim. was also applied prior to distraction.

Results:

Mrs. M. reports complete relief of all symptoms with 3 treatments. She has full AROM in the cervical spine. DTR's and pinwheel of the U.E.'s are WNL. No compression tests have been attempted to date. She has returned to work and has traveled to Portugal this summer with no effects shown.

Discussion:

Please notice in the MRI's how well defined the contained herniation was. Dr. Cox will point out how the Myelomalacia diagnosis can be misread. One interesting sideline of this case is that as well trained a Radiologist is these days, just relying on their reports without seeing the actual MRI's is not doing justice to your patients. They have their opinion, we have ours. Thank you again for letting me share this most interesting case.

I remain,

Stuart Rosenthal, DC
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Legends: Please contrast and correlate the neutral lateral xray study with the MRI studies. It allows you to gain insight into the disc pathology that is probably present with such findings



Figure 1: Neutral lateral xray of this case: Note the reversed lordosis. Note the 3-4 anterior spondylosis and flexion subluxation of C3 on C4. C4 is flexed on 5. Note C5 and C6 demonstrate ossification of the anterior ligament and discogenic spondylosis with relative good preservation of disc height when compared with the MRI findings. Note the C6-7 end plate spondylosis with early ossification within the anterior ligament.

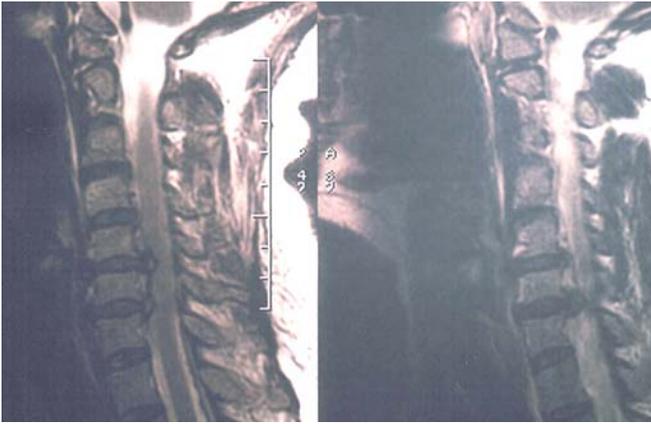


Figure 2: Sagittal image, T1 weighted, showing the large C5-C6 anterior and posterior disc herniation, the C6-C7, C4-C5, and C3-C4 disc herniations. Contrast these findings with the plain xray above and consider the possible changes that are potentially present on plain xrays you take or interpret. The plain xrays do not suggest or indicate the extent of disc disruption seen on the MRI.

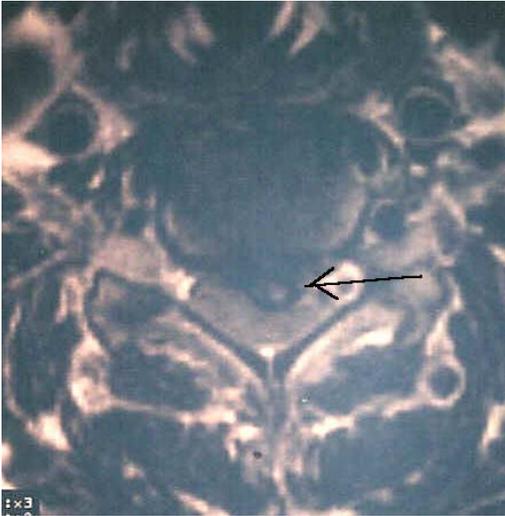


Figure 3. Axial image of the C5-6 disc showing the large right paracentral disc extrusion with a high intensity zone noted by the hyperintense center. It does contact the spinal cord but myelomalacia is not present as suggested by the reading radiologist. The hyperintensity is within the disc fragment, not the spinal cord. This is the finding that prompted the call from the radiologist to refer for neurosurgery immediately.



Figure 4: Axial image of the C6-7 disc level shows a large right lateral recess and foraminal disc extrusion that effaces the foraminal canal creating stenosis.

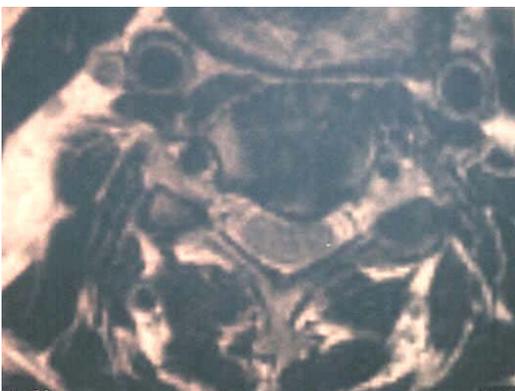


Figure 5: Axial image of the C4-5 disc showing a left paracentral disc herniation contacting the spinal cord ventral surface.



Figure 6: Axial image of the C3-4 disc shows a left large para-central disc herniation that effaces the spinal cord and displaces it posteriorly.

This patient has four disc herniations that contact the spinal cord, stenose the lateral, foraminal, and central canals. All levels yielded pain relief with distraction adjustments.
Correlated with James M. Cox, D.C., D.A.C.B.R.