



CASE REPORT: CLINICAL PRESENTATION OF A THORACIC DISC PROTRUSION, CERVICAL SPONDYLOSIS, AND SCOLIOSIS IN A 50 YEAR OLD PROFESSIONAL BODYBUILDER, SUCCESSFULLY TREATED WITH COX® DECOMPRESSION MANIPULATION, AND ACUPUNCTURE

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INTRODUCTION:

A 50 year old professional bodybuilder and personal trainer presented to my office complaining of intermittent both sharp and dull pain in his left upper thoracic spine that radiated to his left shoulder. He reported his pain to be a 5-8/10 with 10 being worse. He also reported an “electrical feeling” down into his right hand that was positional if he flexed his neck forward and turned his head to the right. He had been bodybuilding since age 14. As a result of his heavy weight lifting over the years, especially squatting with as much as 830 pounds over the years, he had multiple levels of compression and degeneration of his discs. He also had a mild scoliosis, and a history of a lower spine fracture multiple rib fractures at age 8. At that time, he had spent 6 months in a back brace.

HISTORY:

This patient started bodybuilding age 14. He started lifting weights at age 12. He reported in his history that squatting with an Olympic bar was always a problem. It always caused pain in his lower back. In 2002 he started squatting with a Hatfield bar. This allowed him to squat straighter and to take more pressure off his back. Until age 45, he had been squatting approximately 600 pounds for 10-12 reps, 830 pounds for 3 to 5 reps. Today he doesn't regularly squat more than 315 pounds. He also reported that when he does shrugs with more than 225 pounds, he notices pain throughout his spine. When he does pulling style exercises like lat-pull-downs, he doesn't feel pain. He only feels pain now with more compression moves like the bench press. Therefore, he goes with lighter weights and more reps.

As a professional bodybuilder who still competes, spinal surgery and pain medication were not options. He had a history of traditional manipulation with intermittent results and mostly more pain.

I accepted his case and ordered an MRI without contrast of his thoracic spine. I was also able to request all images be taken that would allow the radiologist to see the lower cervical spine as well. The MRI was done at American Dynamic Imaging, Phoenix, AZ. The facility images the patient while sitting thereby allowing weight-bearing force to be imaged for interpretation. The images were read by Gary Longmuir, D.C., M.S, Ph.D., D.A.C.B.R. (A special thank you for both American Dynamic Imaging and Dr. Longmuir for reading the films.)



PRESENTATION AND EXAM FINDINGS:

Examination:

- Height 5'8 3/4"
- Weight 240 pounds
- Vital signs were within normal limits (WNL).
- Heart signs were WNL.
- Deep Tendon Reflexes including triceps and radial were all + 2 bilaterally, except biceps on the right that was + 2 and +1 on the left.

ROM Thoracic Spine:

- Flexion 20/60 With pain at upper T spine on the left
- Extension 5/10 With pain at upper T spine on the left. Refers down to left shoulder
- Right Rotation 20/40 With pain at upper T spine on the left
- Left Rotation 10/40 With pain at upper T spine on the left
- Right Lateral Flexion 8/10 With pain at upper T spine on the left
- Left Lateral Flexion 4/10 With pain at upper T spine on the left

ROM Cervical Spine:

- Flexion 20/45 With paresthesias to left thumb and first & 2nd fingers
- Extension 2/45 With paresthesias to left thumb, first 2 fingers and to left teres minor
- Right Rotation 40 /60-90 (*when combined with flexion of the cervical spine, pain and paresthesias down to left thumb and first 2 fingers*)
- Left Rotation 20/60-90
- Right Lateral Flexion 20 /45 With tension at left upper trap muscle
- Left Lateral Flexion 10/45 With pain and paresthesias to left thumb, first 2 fingers and to left teres minor

Muscle Strengths Upper Extremities:

- | | | |
|-----------------------|---|-------|
| • C5 Deltoid | L 3/5 with pain at left middle deltoid muscle | R 5/5 |
| • C6 Biceps | L 3/5 with pain at left bicep muscle | R 5/5 |
| • Wrist Extension | L 4/5 | R 4/5 |
| • C7 Triceps | L 5/5 | R 5/5 |
| • Wrist Flexion | L 4/5 | R 5/5 |
| • C8 Finger Extension | L 4/5 | R 4/5 |
| • T1 Finger Extension | L 4/5 | R 4/5 |

Sensation:

- Light touch, Deep touch, Vibration, Position Sense all WNL
- Palpation: Hypertonic Paraspinal muscles throughout the entire spine

ORTHOPEDIC EXAMINATION:

- Cervical compression
 - L pain to left thumb and first two fingers
 - R paresthesias to left thumb and first two fingers
 - Neutral - pain in bilateral upper trapezius mm
 - Rotation
 - L pain and paresthesias to left first two fingers and left upper trapezius m
 - R pain to right upper trapezius muscle
- Cervical Compression Lateral Flexion
- Shoulder Depression
 - L pain in upper right trapezius muscle
 - R pain in upper left trapezius muscle
- Maximum Cervical Rotary Compression
 - Both sides cause pain to left thumb and first 2 fingers and left upper trapezius muscle as well as paresthesia to left thumb and first 2 fingers.

IMAGING:

Figure 1

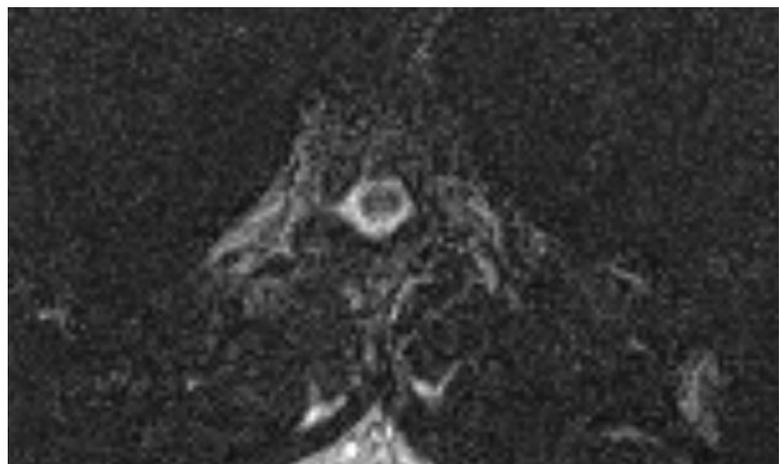


Figure 2

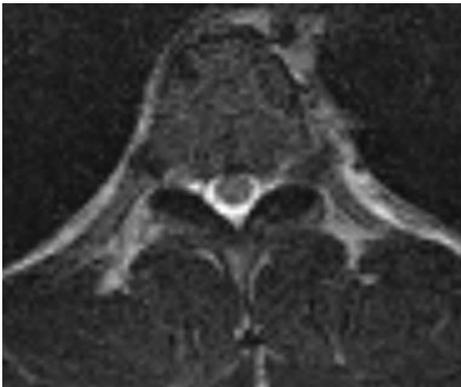


Figure 3

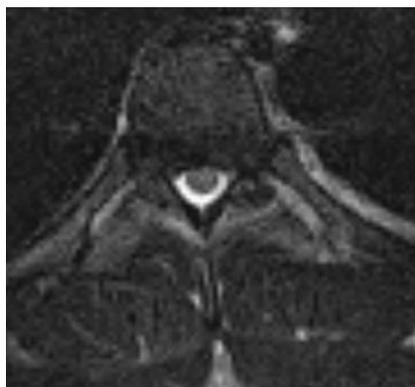


Figure 4



Figure 5

MRI Report by G. A. Longmuir DC DACBR (See Figures above.)**Findings:**

MRI examination of the thoracic spine reveals anterior body height to be unremarkable without acute fracture. Small Schmorl's nodes are observed at the inferior T8 and T9 vertebral endplates with mild subjacent marrow signal changes being present. Marrow signal is otherwise unremarkable. Thoracic bony hypertrophic changes are noted.

A broad-based disc bulge is present at T3-T4 measuring 2 mm anteroposteriorly abutting the ventral aspect of the cord. There is a broad-based disc bulge at T4-T5 measuring 3 mm flattening the ventral aspect of the cord. A broad-based disc bulge is present at T7-T8 measuring 2 mm anteroposteriorly flattening the ventral aspect of the cord. A broad-based disc bulge is evident at T8-T9 measuring 2 mm anteroposteriorly mildly effacing the ventral aspect of the cord. A central disc protrusion is noted at T12-L1 measuring 3 mm anteroposteriorly effacing the ventral aspect of the cord. A discrete zone of increased signal is present at the midline of the posterior disc margin compatible with an annular tear. The conus medullaris is of normal caliber and signal.

Of incidental note are advanced decreases of disc height at C5-C6 and C6-C7 with marginal osteophyte formation and Type II subchondral degenerative marrow signal at the inferior T5 and T6 body margins.

Impressions:

1. *Schmorl's nodes.*
2. *Bony hypertrophy.*
3. *Broad-based disc bulges at T3-T4, T7-T8, and T8-T9 measuring 2 mm anteroposteriorly with mild influence upon the ventral aspect of the cord. Broad-based disc bulge at T4-T5 measuring 3 mm anteroposteriorly mildly effacing the ventral aspect of the cord.*
4. *Central disc protrusion at T12-L1 effacing the ventral aspect of the cord. A small central annular tear is suggested at the posterior margin.*
5. *Advanced discogenic spondylosis at C5-C6 and C6-C7 determined without axial images. MR examination of the cervical spine is suggested for a more thorough evaluation.*

DIAGNOSIS:

Multiple thoracic broad-based disc bulges, Central disc protrusion, T12-L1. Advanced discogenic spondylosis C5-6, and C6-7

TREATMENT:

Chiropractic Course of Care: Cox® Flexion Distraction Decompression Manipulation Technic Protocol 1 for cervical spine was rendered. Contact at C5-6 was initiated on the second visit. Tolerance testing was done to the cervical spine prior to each visit. The intensive phase of his care, which was 4 days per week for the first 10 visits, then when 50% relief occurs, visits would be dropped to 3 times per week. This was the course of care that was rendered. Interferential current local and distal acupuncture points were administered with the patient in a prone position utilizing a Body Cushion System to prevent extension of the patient's lumbar spine.

Treatment consisted of cervical head piece long Y-axis distraction consisting of three 20 second distraction sets. Each 10 seconds consisted of five pumps of 4 second pumping movements with the contact on the arch of the C5 cervical vertebra, segmentally contacting and decompressing all levels to T5. Circumferential decompression was also rendered. Contact for circumferential motion was applied to the left T1 to T5 costovertebral joints. This was followed by interferential current to the C5-C6 levels and the T3-T5 levels as well. This was given for 10 minutes. The patient was placed on Designs for Health's Baxaprin with calcium, magnesium, valerian, etc., to relax the spinal muscles and told to use ArthroSoothe Supreme. This formula was given for glucosamine, hyaluronic acid, turmeric, and more ingredients to support the joints and de-inflate his condition. The patient was instructed that if at least 20% relief was not attained by the 2 week re-exam, I would change my treatment protocol. He was also informed that if 50% relief was not attained within 4 weeks of care, he would be referred to a neurologist. The patient was to apply ice to the cervical and thoracic spine at home. He also was given a Pneumo Neck cervical traction device that he was instructed to use 10-20 minutes nightly.

His treatment plan included 4 visits per week for 2 weeks, then re-evaluation. Upon the completion of that exam, he was then placed on a program for three times a week for the next six weeks. At the end of six weeks, he came into the office for two times a week. Then he had two weeks of one visit per week. He continues on monthly maintenance. His maintenance visits include Cox® decompression only. Should he have an exacerbation or increase of symptoms, I then apply acupuncture and electrical stimulation at that point.

ADDENDUM:

In 2014, he was training for a professional show. Six weeks before the show, he was in a motor vehicle accident where he rear-ended the car in front of him. Because of the seatbelt, he had contusions and strain of his supra- and infra-clavicular musculature as well as cervical whiplash and sprain strain of all para cervical musculature. He reported that it basically flared everything up. He was unable to do any upper body lifting. I started Cox decompression full spine. I also applied high voltage pulsed direct current (HVPDC) to the inflamed musculature. Acupuncture for local points was also done. Within two weeks he was able to go back to his normal body weight routine. He ended up winning the Pittsburgh Masters Pro show at age 50 that August.





Today, at age 52, he reports only intermittent symptoms when he flexes his neck forward and rotates it to the right. Keeping up with maintenance Cox® treatments minimizes this considerably. He also uses the Pneumo-Neck device 10 to 20 minutes per day to reduce the symptoms between treatments.

OUTCOME/DISCUSSION:

It is my opinion that the patient's relief in symptoms were as a result of Cox® Decompression Manipulation, and acupuncture, done by these abovementioned protocols. Protocol 1 was highly effective in not only reducing the patient's symptoms, but also allowed him to continue to strengthen his upper body. According to Schliesser et al (1), a significant reduction of pain can be found by utilizing Cox® Decompression Manipulation of the cervical spine. Although they reported that more research is necessary, I personally find this technique to be the most effective treatment for cervical spine conditions. Although MRI was not performed on the patient's cervical spine (due to the patient's financial constraint), the radiologist was able to see the spondylosis from the thoracic views. The patient's symptoms revealed those generally indicative of disc involvement. Intradiscal pressure (IDP) appear to be reduced using Cox® Decompression Manipulation. According to Gudavalli et al (2), they noticed a decrease in IDP using this technique. In this case, the thoracic disc was decompressed and reduced the patient's symptoms. He was able to continue strength training, and bodybuilding posing as a result. The Cox Decompression Manipulation, I believe, was the reason the treatment worked. In Dr. Cox's Case Study #15 (3), he too reports relief in the patient's thoracic spine as a result of the Cox® treatment.

REFERENCES

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3. Cox JM: Great Cases (Powerpoint): Case Study #15: Small Central To Left Paracentral Disc Protrusion T6-7. [[retrieved from notes email from Julie Cox-Cid on February 27, 2017]]