

## Case Presentation:

### Successful Treatment of Large Lumbar Herniated Nucleus Pulposus utilizing the Cox® Flexion-Distraction Technic

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## Introduction

- This case report describes the successful implementation of the Cox® Technic with regards to severe lower back and lower extremity pain.
- The patient had originally presented to his Chiropractor following an injury to his lower back.
- He was unable to tolerate a diversified chiropractic adjustment, felt much worse after the attempted treatment, and had difficulty getting off of the treatment table.
- His Chiropractor referred him to my office for further evaluation and treatment.

## Presentation

- Wade C. is a self-employed Air Conditioning Technician.
- He was stooped over in a crawl space while lifting a heavy air conditioning part.
- He felt immediate pain and presented to his Chiropractor, who after an unsuccessful adjustment, referred him to my office.
- He presented to my office in obvious distress, ambulating with a severely antalgic gait.
- He stood with a forward and left leaning antalgic posture.

## Presentation

- He complained of exquisite lower back pain, constantly radiating into his right buttock, posterior thigh and leg. VAS = 10/10.
- Wade complained of numbness and tingling sensations in the right leg (non-dermatomal).
- He denied any loss of bowel or bladder control, or saddle anesthesia/paresthesia.
- His PMH was benign w/ no prior incidents, surgeries, trauma. Non-smoker, social ETOH.
- Oswestry Questionnaire score of 41 out of 45 or 91%.
- Family Medical History non-contributory.

## Examination

- He presented as a well-developed, well-nourished 25 year old male.
- Height: 72 inches      Weight: 157 lbs.      BMI: 21.29
- He was afebrile and the vital signs were considered normal.
- Orthopedic evaluation:
  - Minor's sign was present
  - Positive Tripod Sign
  - Positive Valsalva Maneuver
  - No further orthopedic tests deemed appropriate at that time

## Examination

- He could not tolerate active or passive assessment of the Lumbar spine ROM.
- He had exquisite pain and considerable difficulty getting on and off of the treatment table & in/out of office chairs.
- Deep Tendon Reflexes were absent (0/+4) bilaterally at the Patellar and Achilles Tendons.
- Sensation to sharp stimulus was intact throughout the L1-S1 dermatomes bilaterally.
- Vibratory sensation was intact at the medial and lateral malleoli bilaterally.

## Examination

- Motor assessment revealed the following:
  - Weakness (4/5) at the right quadriceps, EHL, peroneus L&B, soleus
  - Weakness (3/5) at the right tibialis anterior
  - Normal (5/5) all on left
- Severe degree of hypertonicity was noted throughout the thoracolumbar ESM bilaterally.
- Exquisite pain w/ palp of right LESM, gluteus medius, sciatic notch, and GOIC.
- Radiographs unremarkable.

## Magnetic Resonance Imaging

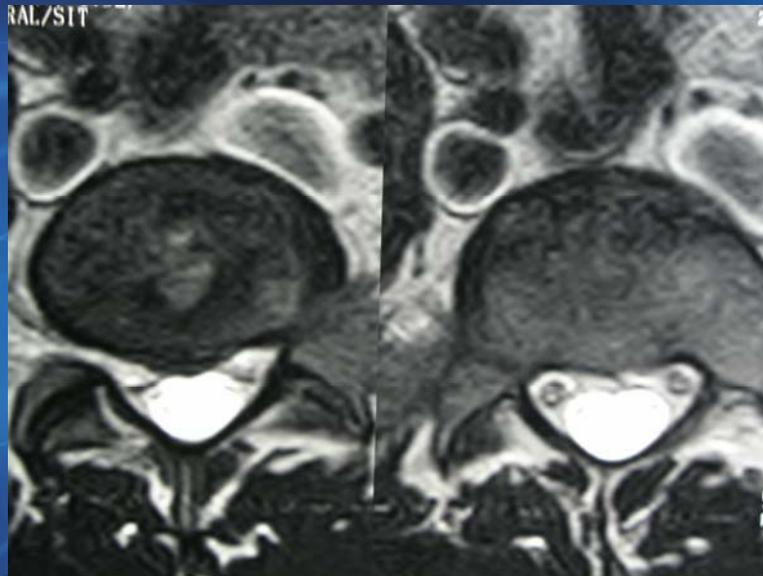
- Large herniated disk at L5-S1 w/ bilateral foraminal encroachment
- Large herniated disk at L4-L5 to the right w/ spinal stenosis & foraminal encroachment
- Herniated disk at L3-4
- Bulging disk at L2-L3



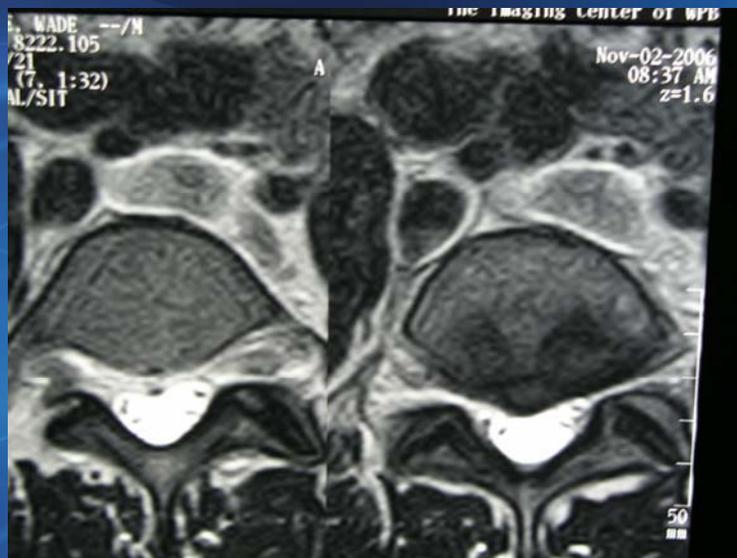
# Magnetic Resonance Imaging



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## Magnetic Resonance Imaging



## Treatment

- Treatment initially consisted of:
  - Hot moist packs
  - Pulsed ultrasound
  - Interferential current therapy
  - Cox® F/D Protocol I
  - Pelvic tilt/Single Knee to Chest/DbI Knee to Chest (started at 5<sup>th</sup> visit)
- Treatment frequency: 3 times per week.
- He showed significant improvement subjectively/objectively, but discontinued care after 8 visits over 2.5 weeks.

## Discussion

- 3 weeks later, Wade returned due to exacerbation of prior complaints after bending over at work the previous day.
- Constant right LBP radiating into right buttock/thigh/leg. VAS = 8/10. Frequent numbness/tingling in the lateral right leg.
- Treatment was resumed using same protocols.
- Wade treated an additional 6 visits over 3 weeks with significant improvement and again discontinued care.

## Discussion

- 7 weeks later Wade returned due to another work related exacerbation.
- Right LBP radiating into his right buttock/right upper posterior thigh. VAS = 9/10. Frequent numbness in right leg.
- He treated an additional 9 visits over a 4 week period and again discontinued care. During his last visit his VAS = 3/10.
- 14 months following discharge he stated he was pain-free and only on occasion felt pain in the right side of his lower back, occasional “slight numbness” in his right leg, and no longer felt any radiating pain going into his right lower extremity.

## Conclusion

- Wade was treated 23 total visits over a 19 week span.
- He made a marked improvement with care, despite being inconsistent and non-compliant.
- Self-employed, self-payer = motivated to minimize treatment and return to work asap, regardless of our recommendations.
- My opinion that greater compliance and consistency of care could have resulted in fewer visits, lower costs, less time off of work, with similar if not a better overall outcome.