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CASE DESCRIPTION

- 48-year-old M with history of chronic low back pain presented to clinic with a four-month history of leg weakness and numbness
- Four months ago, the patient had a chiropractor adjustment where they “popped his mid back” and he immediately had shooting pain and numbness down his legs
- While walking to the car he realized he was having difficulty walking and his legs felt weak. He was told this would resolve on his own
- The pain ultimately resolved, however the paresthesia worsened over the next four months
- His entire legs bilaterally, including his groin area, felt numb
- Endorsed difficulty walking, especially when he could not see his feet, and suffered from frequent falls
- Complained of increased urinary and bowel urgency and increased urinary frequency with decreased urinary volume
- Evaluated by a spine surgeon the week prior and was told he needed immediate surgery; however, the patient wanted a second opinion.

WORK UP

- On physical exam, the patient had gait instability and was unable to walk on his heels, toes nor tandem walk
- He had impaired sensation to light touch and pin prick from T11-S2
- Strength was normal throughout bilateral lower extremities
- Reflexes at bilateral patella and Achilles were normal. Muted Babinski and no ankle clonus bilaterally.
- He had abnormal proprioception in his big toes bilaterally
- Thoracic MRI revealed severe central canal stenosis at T10-11.



Figure 1: Saggital T2 MRI of the Thoracic spine showing a large disc extrusion at T11-12 with abnormal cord signal

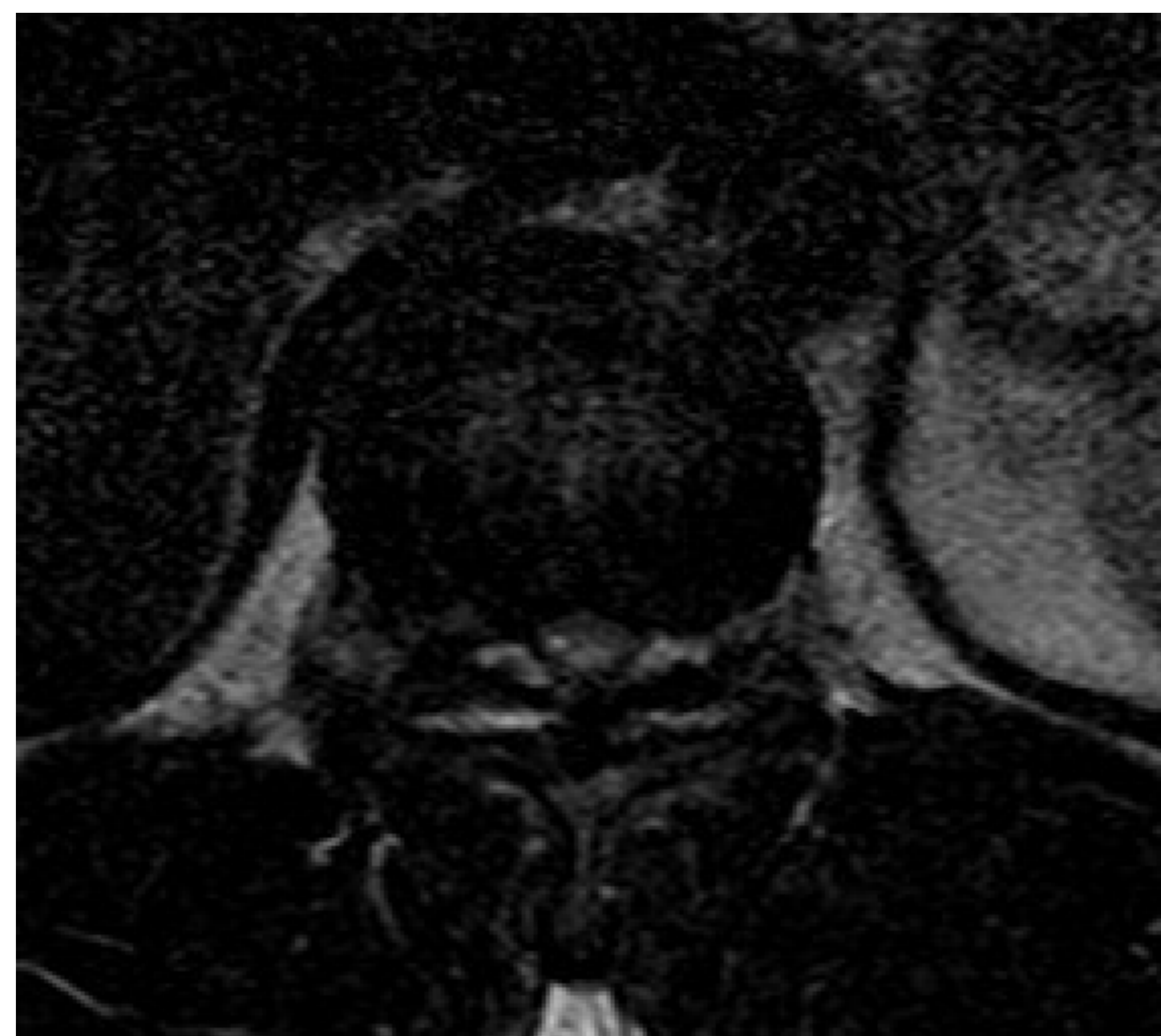


Figure 2: Axial T2 MRI of the thoracic spine showing a large disc extrusion at T11-12 with severe central canal stenosis

OUTCOME

- We recommended the patient see a spine surgeon and he ultimately underwent T9-11 laminectomy and fusion the following week
- The patient was discharged home on post-op day 3 with outpatient PT
- At 6-weeks follow up, the patient had returned near his baseline with normal strength, sensation, gait (including tandem gait) and bowel and bladder function

DISCUSSION

- Patient that presents with multiple red flag symptoms needs immediate work up
- A systematic review of thrust joint manipulation in the thoracic spine by Puentedura et al revealed 7 spinal cord injuries after thoracic thrust manipulation from 1950-2015
- Of the serious adverse effects, spinal cord injury was the most common followed by pneumothorax

CONCLUSION

- This patient had a chiropractor adjustment resulting in thoracic myelopathy with evidence of neurogenic bowel and bladder
- Cautionary tale that excessive force applied to the thoracic spine, as in this case with a chiropractor, can lead to myelopathy
- This case aims to spread awareness on the safety and possible outcomes of thoracic spine manipulation

REFERENCES

1. Puentedura EJ, O'Grady WH. Safety of thrust joint manipulation in the thoracic spine: a systematic review. *J Man Manip Ther.* 2015;23(3):154-161. doi:10.1179/2042618615Y.0000000012