

BACKGROUND

What is Known

- Cervical myelopathy can be multifactorial related to static structural changes, dynamic mechanical factors, and histopathologic and vascular changes (ischemia, infarction, etc.)¹

What is New

- Should we practice more aggressive cervical precautions in patients with mild degenerative disc disease in undergoing physical therapy for other diagnoses?

What is Unknown

- If cervical collars/precautions are used, do we have data or evidence to determine when it is safe to remove it? Should it come from the physiatrist or neurosurgery?
- How long should we tell patients to be cautious?
- What if patients need to rely on UE strength for ADLs?

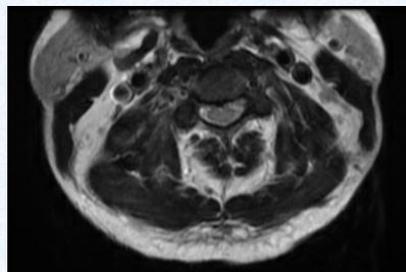


Image 1

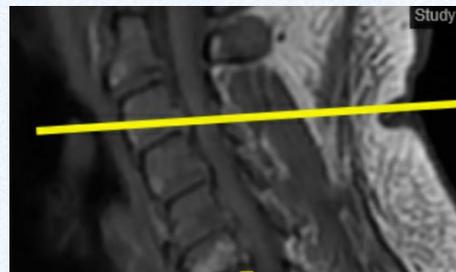


Image 2

Image 1 is the initial cervical MRI T2 weighted axial view showing degenerative disc disease at the level of C3-4.

Image 2 is the initial associated cervical MRI T1 weighted sagittal view.

Image 3 is the second cervical MRI T2 weighted axial view showing moderate-severe spinal stenosis and cord compression at C3-4 roughly 1 week later.

Image 4 is the second associated cervical MRI T2 weighted sagittal view.

CASE DESCRIPTION

- 65-year-old male patient was admitted for 1 week of worsened **lower extremity weakness**. Reflexes were **diminished** throughout. Patient had a history of lacunar infarct. Initially admitted for stroke, which was ruled out with a negative brain MRI. MRI of the spine was significant for **degenerative disc disease at C3-4 and C5-6**, with no other evidence for cord compression.
- Patient was admitted to ARU for **ataxia and multifactorial peripheral neuropathy (DM, ESRD, ETOH abuse, PVD, cervical spondylosis, and old lacunar infarct)**.
- Initially, the patient was MinA with rollator walker ambulating 30'.
- Four days into his therapy, the patient **suddenly worsened**, requiring MaxA for ambulation, with worsened spasms and burning pain in upper extremities.
- Repeat dedicated cervical spine MRI showed moderate-severe spondylosis, **moderate-severe spinal stenosis and cord compression at C3-4 and severe foraminal stenosis at C4 and C6**.
- Subsequently, patient underwent C3-C6 laminectomy for myelopathy.
- Post operation, the patient immediately progressed to ModA ambulation with RW and had resolution of spasms and burning pain in UE.
- Patient was discharged to sub-acute rehabilitation POD3.

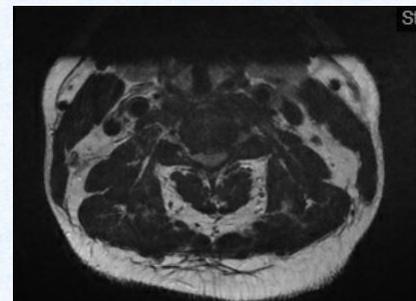


Image 3

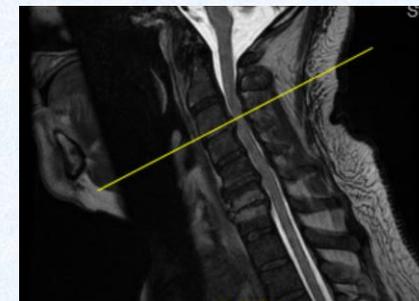


Image 4

DISCUSSION

- Cervical spondylosis is a very common diagnosis and neck pain is one of the leading causes of disability.²
- Common rehabilitation diagnoses such as stroke, amputations, hip and knee replacements, SCI and trauma, require patients to **compensate** and **heavily rely** on their upper body for function and ambulation.
- This case highlights that rehabilitation patients with comorbidities of cervical spondylosis may be at risk of cervical myelopathy due to sustained stress of the spine as they undergo physical therapy for another rehab diagnosis.

CONCLUSION

- This case warrants the discussion to consider cervical precautions in patients with underlying cervical spondylosis when undergoing rehabilitation for their primary diagnosis.
- These precautions are typically used in patients with acute spinal injury, however it should be investigated if a version of these precautions can be used to prevent injury in patients who are susceptible to further injury as they undergo therapy.

REFERENCES

- Shiban E, Meyer B. Treatment considerations of cervical spondylotic myelopathy. *Neural Clin Pract*. 2014;4(4):296-303.
- Baptiste DC, Fehlings MG. Pathophysiology of cervical myelopathy. *Spine J*. 2006;6(6 Suppl):190S-197S.

