Case Report of a Fatal Complication in Cervical MyelopathyTreatment: Laminoplasty with Unilateral Screw Fixation

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This case report describes a fatal complication encountered during the treatment of cervical myelopathy using laminoplasty with unilateral screw fixation.

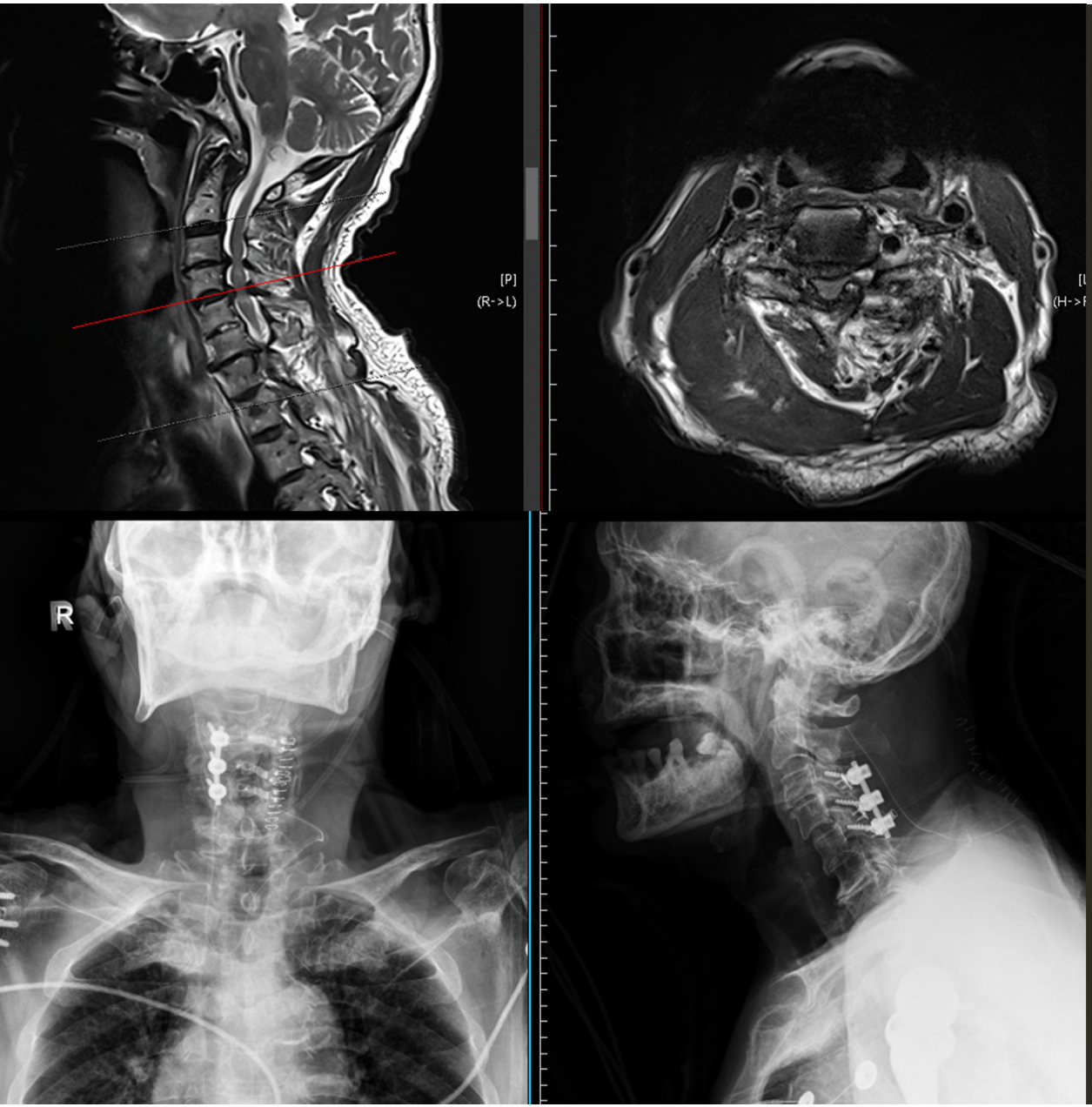
An 82-year-old male patient diagnosed with cervical spondylotic myelopathy at levels 3-6 underwent surgery. Unilateral laminoplasty with contralateral screw fixation was performeddue to the presence of cervical subluxation and associated instability. It was anticipated that cervical laminoplasty could lead to kyphosis changes and act as a risk factor for cord decompression impairment in the presence of instability. Despite initial improvement in motor function after surgery, the desired symptom changes did not manifest.

Postoperative MRI revealed compression lesions, hinge joint fractures, compression of the spinal cord, and ligamentum flavum compression.
As time passed, improvement ceased, and symptoms of C5 palsy accompanied by radiating pain from the upper extremities emerged.
A second surgery was performed,involving laminectomy and bilateral screw fixation,due to lateral mass destruction and screw loosening observed during the procedure. The surgical plan was altered from laminoplasty to laminectomy.

The patient presented with tetraplegia upon admission to the emergency room and was in the process of recovery.

However, if the surgery had been performed without paralysis, new paralysis or worsening of symptoms could have occurred.

Although the efficacy has been validated in previously published studies, reporting the value of complications is essential. Given the presence of a fatal complication, the addition of screw fixation as a complement to laminoplasty should be carefully considered in various situations and may not be the preferred option.



1st pre op evaluation : Multiple severe cervical spondylotic myelopathy

1st post op evaluation : Screw fixation Rt side, Lt side laminoplasty side

After the first surgery, the neck pain and limb paralysis that had persisted were restored after the second surgery. The screw heads on the screw side were obstructing laminoplasty decompression, and instead, the fixed rod was locking cervical lordosis, causing adverse effects. Although the effectiveness was verified in reference literature, two surgeries were performed due to severe complications. I believe that better outcomes could have been achieved if laminoplasty had been performed from the beginning. Performing surgery that combines cervical laminoplasty and cervical laminectomy can yield expected results when their advantages are combined, but there is a possibility that disadvantages may outweigh the benefits.
I hope that this experience will be helpful in planning and making decisions regarding surgical methods.

1st post op evaluation :
MRI post op finding sustained with severe compressive spinal cervical lesion

2nd post op evaluation : CT finding decompressed cervical laminectomy

Thank you for your attention!!

Reference

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