

## Long Segment Spinal Cord Injury Without Vertebral Fracture Or Dislocation

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### INTRODUCTION:

Spinal cord injury (SCI) usually occurs after trauma associated with vertebral fracture or dislocation. There are sparse literature regarding patient with ossification of posterior longitudinal ligament (OPLL) post-minor trauma suffering SCI without radiographic evidence of trauma.<sup>1,2</sup>

### CASE REPORT:

This is a 75 year-old farmer with no previous history of cervical myelopathy symptoms. He came presented with bilateral upper and lower limbs weakness following a minor fall from a sitting chair.

Examination revealed that the power of his limbs were significantly reduced, and was unable to ambulate. Neck tenderness was elicited with presence of myelopathy signs. Motor and sensory disturbances were found to be more expressed on his upper limbs.

Plain radiograph and CT scan showed remarkable OPLL from C2-C6 causing severe stenosis with reduced sagittal diameter of spinal canal. There is no evidence of fracture or dislocation, and cervical alignment was preserved. MRI cervical showed long segment spinal cord compression with extensive cord edema.

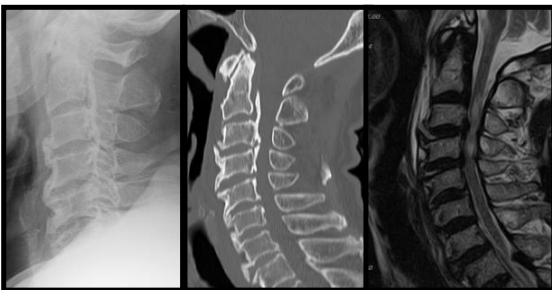


Figure 1 - Cervical radiograph, CT scan and MRI images.

The patient underwent posterior spinal instrumentation and fusion with decompression

laminectomy C3-C6. Intra-operatively, the spinal cord was swollen as evidenced by bulging of dura.

### DISCUSSION:

Frequently asymptomatic, patients with OPLL may not present with any traumatic findings on plain radiography.<sup>1</sup> CT scan is the gold standard radio-imaging to delineate the bony anatomy of any OPLL.<sup>2</sup> Therefore, a normal radiography of the cervical spine may confound any attending surgeon if the diagnosis of an OPLL is not kept in mind.

### CONCLUSION:

The differential diagnosis of OPLL should be considered in patient presented with acute SCI with no radiographic evidence of trauma.

### REFERENCES:

1. Koyanagi, Izumi M.D et al. Acute Cervical Cord Injury Associated with Ossification of the Posterior Longitudinal Ligament. *Neurosurgery* 53(4):p 887-892, October 2003.
2. Ricciardi GA et al. Traumatic Acute Spinal Cord Injury Associated with Ossification of the Cervical Posterior Longitudinal Ligament without Tomographic Evidence of Bone Trauma. Case Series and Literature Review. *Rev Asoc Argent Ortop Traumatol* 2021.