A Case Report of Complete Fracture Dislocation of Lumbar Spine with Incomplete Spinal Cord Injury

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INTRODUCTION

Traumatic fracture dislocation at lumbosacral region involving L5/S1 are common, however very few fracture dislocation at L4/L5 cases are reported. There are several reduction techniques for thoracolumbar spine fracture dislocations to achieve good coronal and sagittal alignment.

REPORT:

A 48-year-old female with underlying bronchial asthma was involved in a road traffic accident and sustained multilevel thoracic spine fractures and fracture dislocation at L4/L5 with incomplete neurological deficit.

She complained of thoracic and lumbar back pain accompanied with bilateral lower limbs weakness. Neurological assessment revealed reduced motor function of right lower limb with ASIA type C. There is no sensory loss.

Patient underwent posterior spinal instrumented fusion. Prior to reduction, total laminectomy of L4 was done. This is essential to ensure cord is not further injured during reduction. In this case, we notice that both facet had been locked invertedly side to side and blocking our reduction. Facetectomy, rod application and distraction has been done to assist in our reduction.

Simultaneously, to restore listhesis, we had use long arm screw for PSIF. We initially tightened the L5 and S1 to the rod. After aligning the spine by distraction, the proximal segment screw were locked from L4 to L2 in aiding reduction for listhesis.

Post operatively, patient has motor improvement over right lower limb from L4 to S1. Patient was able to sit up with support and ambulate using wheelchair.

DISCUSSION:

Fracture dislocation over mobile segment is rare especially over L4/L5 region. Reduction of this

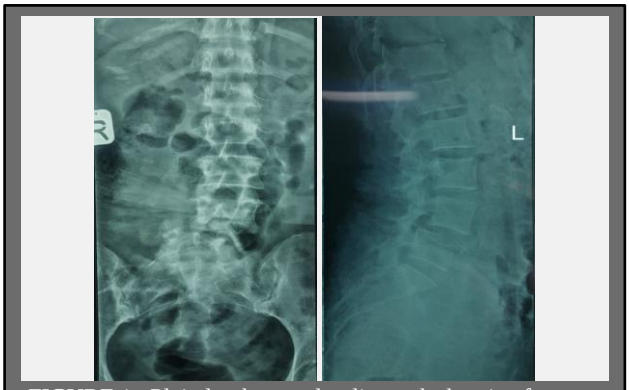

FIGURE 1 : Plain lumbosacral radiograph showing fracture dislocation L4/L5.

FIGURE 2 : Post operative plain lumbosacral radiograph

injury is challenging. In our case, total laminectomy is essential not only to aid in reduction but to anticipate further damage to the cord. Choices of screw, distraction technique and sequence of tightening the screw is another key for this case.

CONCLUSION:

Fracture dislocation of lumbar spine is an emergency which requires surgical intervention. An appropriate reduction technique is helpful to achieve good reduction and provide a stable spine.

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