

RARE TRAUMATIC L5/S1 ANTEROLISTHESIS

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INTRODUCTION

Traumatic spondylolisthesis is a rare injury resulting from complex trauma and high-energy mechanisms.

CASE REPORT:

We report a case of a 19 year old labourer, who presented with lower back pain after a heavy metal fell on his lower back. On examination, there was bruising in the lumbosacral region with palpable gap, step deformity and intact neurology. Initial lateral lumbosacral radiograph showed an innocent L5 facet fracture. Computed tomography however showed grade 1 anterolisthesis of L5/S1 with left L5/S1 facet dislocation (Figure 1). Reduction and stabilization was achieved by left L5, and S1 facet excision and stabilization with posterior instrumentation from L4 to S1 (Figure 2). Post-operative period was unremarkable with intact neurology and uneventful rehabilitation.

DISCUSSIONS:

Traumatic dislocation of the lumbosacral junction, and easily missed rare injury, has been reported with 2 major injury patterns: anterior or posterior type. Both represent a three-column injury that dissociates the pelvis from the spine and requires surgical stabilization. This rare injury is easily missed without appropriate radiographic examination and a high index of suspicion. Neurological complications has been reported to be as high as 68.4%¹. Open reduction and internal fixation using pedicle screws is considered the standard of treatment for this injury. Safe reduction is achieved intraoperatively where the canal can be explored to ensure there are no bone or disk fragments. In our case, intact neurology and subtle findings on plain radiograph but high vigilance avoided a missed case unstable spine injury.



Figure 1 : L5/S1 anterolisthesis

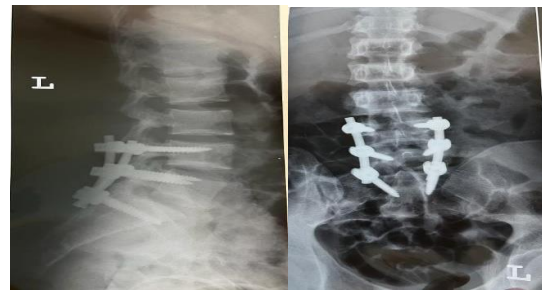


Figure 2 : PSIF L4-S1

CONCLUSION:

A rare and subtle injury like a traumatic anterolisthesis of the lumbosacral junction without neurology requires a high index of suspicion to avoid a missed diagnosis. Reduction is achieved intraoperatively and stabilized by posterior instrumentation.

REFERENCES:

1. Aihara T., Takahashi K., Yamagata M., Moriya H. Fracture-dislocation of the fifth lumbar vertebra. *The Journal of Bone & Joint Surgery (British Volume)* 1998;80(5):840–845. doi: 10.1302/0301-620X.80B5.8657.