

Traumatic Pure Lateral Listhesis Of L5-S1

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INTRODUCTION:

Traumatic spondylolisthesis at the lumbosacral junction is a rare injury and usually associated with high energy trauma. Only 3 cases of pure lateral listhesis at the lumbosacral junction has been reported to date in the English literature^{1,2}.

CASE REPORT:

We report a case of an 18 years old gentleman who was thrown off his motorcycle and hit a road lamp post at his left loin. He complained of pain at the lower back and abdomen. On examination, there were abrasion wounds his left loin and spinal tenderness at the lumbosacral region. He had no neurological deficit. Radiographs and CT scans were takes at the emergency department (Fig. 1).

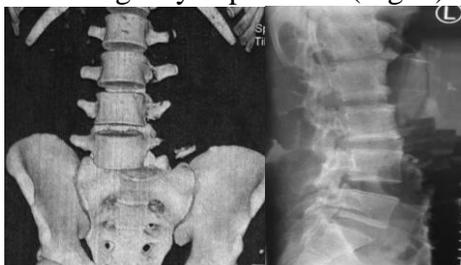


Figure 1: Trauma imaging showing lateral translation of the L5 on the S1 with associated transverse process fractures.

Lateral radiograph show no translation at the sagittal plane.

He also sustained injury to his liver and spleen which were treated conservatively and was hemodynamically stable throughout the hospitalization. Posterior instrumentation and fusion were done at post trauma day 4 where fusion were done from L4 to S2 (Fig. 2).



Figure 2: Post operative imaging showing fusion from L2 to S2 using pedicles screws, rods and crosslink.

DISCUSSIONS:

Traumatic dissociation of L5-S1 has been regarded to be mainly anterior or posterior listhesis pattern. They are considered as 3 column injury which are unstable and requires open reduction and internal fixation³. The cases of which involved lateral listhesis of L5-S1 in the literature showed only 1 out of 3 such reported case had neurological deficit^{1,2}. We found this to be relatively low considering it to be a high energy trauma to the spine. We think that this could be due to the anatomy of the cauda equina situation at this region to be more mobile as opposed to in the thoracolumbar region which permits more motion to accommodate the strain of the nerve roots when this injury happens. We also agree with Vialle et al that a component of lateral traumatic force plays a role in rotating the trunk over the fixed pelvis to produce this pattern of lumbosacral injury².

CONCLUSION:

Lateral listhesis of the lumbosacral junction must be not be missed and managed with open reduction and internal fixation.

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