

## Hyperextension Lumbar Injury Resulting in Intervertebral Bowel Entrapment: A Case Report and Review of Literature

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#### Introduction

Traumatic vertebral bowel entrapment is an exceedingly rare event, in which, as a result of a traumatic flexion/extension event, a segment of bowel is snared between two vertebrae. Very few events of these genera have been reported in the literature, with estimates close to a dozen, and none including Puerto Rico.

#### Methods

Case description: We report the case of bowel entrapment in vertebrae after a rollover motor vehicle accident in a 42-year-old man who presented with acute abdominal pain. Clinical Approach: Trauma workup was performed, including head and neck CT scan, as well as chest and abdominopelvic CT scan with IV/PO contrast. A L2 Chance fracture was identified, and a thoracolumbar MRI was performed to assess neural involvement. Since abdominal pain persisted, an exploratory laparotomy was performed.

## Results

Clinical findings: On exposure of abdominal contents, the small bowel was followed and noted to "disappear" in the lesser sac. Bowel was found entrapped and necrotic within the intervertebral space. Discectomy with L2/L3 end plate shaving was performed followed by bowel resection due to ischemia and necrosis of entrapped bowel. Finally, an end-to-end anastomosis of the jejunum was performed.

#### Conclusions

This cause for mechanical bowel obstruction is rare and constitutes a diagnostic challenge. It is important for all Trauma surgeons and radiologists to be aware of the possibility of intervertebral impingement as the cause of mechanical bowel obstruction. Hyperextension/flexion injury may be an uncommon cause of persisting abdominal pain; therefore, it should be considered in the initial differential diagnosis.

### Learning Objectives

When unexpected pathology or previously unseen intra-operative findings are encountered, a combination of basic surgical principles and improvisation is necessary. Imaging studies, including contrast studies and CT scans, will be part of the initial assessment in most cases of MBT/MVA. However, should the studies not yield diagnostic possibilities, exploratory laparotomy should be performed if there is sufficient clinical suspicion.

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