

“I Can’t Feel My Legs!” – Spinal Shock Following Thoracic Spine Fractures: Recognition & Stabilization

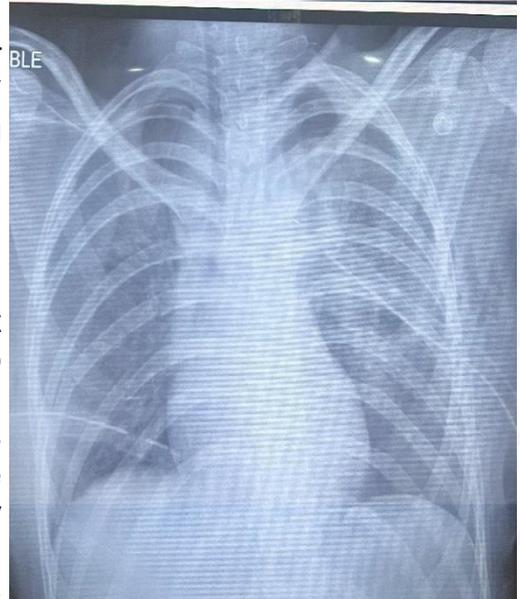
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Introduction

Traumatic vertebral fracture with spinal cord injury (SCI) is a rare occurrence in motorvehicle accident and it signals a significant high-energy impact. It is important for healthcare workers to recognize this and manage accordingly.

Case Description

This case involves a 27-year-old female passenger who was ejected through the window when her SUV skidded and spun uncontrollably, striking a retaining wall. Post trauma, she complained of back pain and reduced sensation over bilateral lower limb (LL). Cervical collar was applied, and she was transported using spinal board. Her GCS was full, but her blood pressure (BP) was hypotensive, 86/53 with the heart rate (HR) of 90. On examination, she was noted to have reduced air entry with hyperresonance on percussion bilaterally. Logroll revealed tenderness over mid thorax area with step deformity. Anal tone was lax. Neurological examination revealed severely impaired motor and sensory below T7, ASIA A. Initial suspicion of thoracic vertebral fracture with SCI was made and immediate portable CXR was ordered. It revealed bilateral pneumothorax with T5 fracture dislocation. IVI Noradrenaline was commenced for persistent hypotension despite adequate fluid resuscitation and chest tubes. Prompt trauma alert was activated, and CT TAP was ordered by orthopedics team. Patient was immediately pushed to OT for stabilization. Following two weeks of admission, she was discharged with improved neurological outcomes of 4/5 power of bilateral LL.



Discussion

SCIs are rarely isolated and often accompanied other injuries like this patient. Hence it is important to be vigilant in managing traumatic SCI. In managing SCIs, vital sign is important, especially BP and HR. Lariccia et. Al recommended maintaining MAP of > 85mmHg to preserve cord perfusion¹, commonly achieved through vasopressors like noradrenaline or dobutamine. Although glucocorticoid therapy is sometimes employed in the management of SCI, its use remained controversial² as of recent guidelines as the therapy is inconsequential. Immediate orthopedic referral is essential, as early spinal stabilization within 8 hours is crucial for improved outcomes in SCIs³.

Conclusion

While SCIs are infrequent following trauma, awareness of their associated morbidity is vital and rigorous clinical assessments is warranted.

Keywords: Spinal Cord Injury, T5 fracture

References

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