

Lumbar Spine Trauma

Click on hyperlinked text to view radiographs and clinical pictures.

Introduction

This 19 year old man is brought to the trauma room by paramedics. He was replacing shingles on the roof of a house when he slipped and fell approximately 25 feet to the ground, landing on his left side. He is brought in on a long spine board and a semirigid C-collar is on. He is coherent and complains of left sided chest pain and some difficulty breathing. His airway is clear and he is placed on 100% oxygen by rebreather mask with an O₂ saturation of 99%. There is no neck pain.

Examination reveals decreased breath sounds on the left side. There is no tracheal deviation and no crepitus is felt over the left hemithorax. He is hemodynamically stable. Neurologic examination reveals an absent bulbocavernosus reflex, and 0/5 power of all muscle groups in both lower extremities. There are no reflexes in the lower extremities. Neurologic examination of the upper extremities is normal. There is no sensation below the level of iliac crests bilaterally. When he is log-rolled, examination of the spine reveals a large step just below the thoracolumbar junction. There is symmetric swelling at this level, and the pelvis is stable.

What are your provisional diagnoses?

Chest Radiograph:

Radiographs of the lumbar spine:

Does the injury explain the neurologic findings?

How would you treat this patient:

A: In the trauma room ?

B: Definitively ?