

CASE REPORT

THORACIC TRAUMA IN AN OBESE 185 KG PATIENT MANAGEMENT IN A REGIONAL HOSPITAL

Christos Simoglou¹, Fotios Kodonas², Euterpe Varada², Viktor Popko²,
Eleni Kyriazati², Athanasios Kamouris²

¹Thoracic Surgeon, Emergency Department, General Hospital of Xanthi, Greece

²Surgical Clinic, General Hospital of Xanthi, Greece

Introduction:

Obesity is a well-established risk factor for increased morbidity and mortality following trauma. The management of obese trauma patients presents unique diagnostic and therapeutic challenges due to altered physiology, technical difficulties, and equipment limitations. We present the case of a 35-year-old obese male, weighing 185 kg (BMI: 54 kg/m²), polytrauma patient, who was admitted to the Emergency Department of our hospital following a motorcycle accident. Upon arrival, he was hemodynamically stable and presented with abrasions on the upper and lower extremities.

Objective:

•To present a case of polytrauma in an obese patient successfully managed in a regional hospital, emphasising the diagnostic process and conservative therapeutic approach.

Materials & Methods / Findings:

Clinical and radiological evaluation revealed multiple left-sided rib fractures (1st–5th ribs), extensive subcutaneous emphysema extending from the thorax to the cervical region, pneumomediastinum, contusion of the left lung, and left-sided hemopneumothorax.

Results: Despite the challenges posed by the patient's body weight (185 kg), which approached the upper operational limit of the CT scanner, a CT scan was successfully performed and confirmed the injuries. According to protocol and in the presence of a Thoracic Surgeon, bronchoscopy was performed to exclude tracheobronchial injury. A chest tube was inserted and connected to a closed thoracic drainage system (Bülau). The patient was admitted to the Surgical Ward. His course was uneventful, and he was discharged after 14 days.

Discussion: Thoracic injuries account for approximately 25% of trauma-related deaths. While chest X-ray remains the initial diagnostic tool, computed tomography (CT) is increasingly preferred, especially in thoracic trauma, as it has higher sensitivity and clearly demonstrates free mediastinal air. CT is also used to detect pneumomediastinum and to exclude underlying causes such as esophageal rupture, trauma, or tracheobronchial rupture.

Conclusion: This case highlights the diagnostic and therapeutic challenges of thoracic trauma in obese patients and its management in a regional hospital. It also underscores the importance of CT imaging and a multidisciplinary approach to achieve favorable outcomes

