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Imaging of Traumatic Lung Injury

Introduction: Mortality rate with blunt chest trauma can be as high as 60%, and 20-25% of deaths in polytrauma can be due to chest injury. It is crucial to recognize the types of acute traumatic chest wall injuries timely.

Methods: We reviewed the imaging studies of the trauma patients and excluded cardiac emergencies to study lung injury types and characteristic imaging findings to avoid diagnostic pitfalls.

Results: All of the trauma patients had an initial chest radiograph, that usually showed some indications of underlying chest wall or lung injuries, such as: pulmonary contusions, rib fractures, pleural effusions, hemothorax or abnormal air collections, like pneumothorax, pneumomediastinum, pneumopericardium or diaphragmatic tear.

Conclusion: Complications associated with location and increased number of the rib fractures included flail chest, type 3 lung laceration, hepatic and splenic lacerations in addition to mediastinal injuries associated with high impact first rib fractures.