

Content

Title	No.
Aim of the study	1
Introduction	2
Surgical Anatomy of the Chest	4
Pathophysiology of Chest Trauma	27
Clinical Presentation	34
Laboratory Studies	43
Management of Chest Injuries	50
References	112

List of Figures

Title	No.
Fig. (1): Chest wall including diaphragm.	4
Fig. (2): A typical rib.	6
Fig. (3): Lateral view of first and seventh ribs in position.	7
Fig. (4): Diagram showing the axes of movement of a vertebrosteral rib.	8
Fig. (5): Diagram showing the axis of movement of a vertebrochondral rib.	8
Fig. (6): Deep muscles of the chest and front of the arm.	9
Fig. (7): The diaphragm, under surface.	11
Fig. (8): The transverse and oblique sinuses of the pericardium.	13
Fig. (9a): The interior of the right atrium and ventricle.	14
Fig. (9b): surface anatomy of lung.	14
Fig. (10): Plan of the branches.	15
Fig. (11): The course of the internal mammary artery.	16
Fig. (12): The thoracic aorta, viewed from the left side.	17
Fig. (13): The course of the thoracic ducts.	19
Fig. (14): Front view of cartilages of larynx, trachea, and bronchi.	20
Fig. (15): Transverse section of the trachea.	21
Fig. (16a): Mediastinal surface of right lung.	23
Fig. (16b): Surface anatomy of the lung.	23
Fig. (17): Primary lobule of the lung.	24
Fig. (18): Oesophagus and its relations.	25
Fig. (19): Pathophysiology of chest trauma.	28
Fig. (20): Anatomic diagram of the thoracic aorta and its branches.	31
Fig. (21): A penetrating cardiac injury.	32
Fig. (22): Chest SCT depicts a right pneumothorax and a massive subcutaneous emphysema related to multiple right rib fractures.	52
Fig. (23): Severe pneumomediastinum and cervical emphysema related to a distal tracheal fracture.	52
Fig. (24 a-c): Blunt trauma with chest wall injury.	55
Fig. (25): Chest X-ray, showing flail chest.	58
Fig. (26 a-b): Pulmonary contusion.	62
Fig. (27 a-b): Blunt trauma of the right hemithorax.	63
Fig. (28 a-d): Polytraumatized patient with respiratory failure.	64
Fig. (29): Chest X-ray showing right tension pneumothorax.	68
Fig. (30 a-b): Front car crash and admitted with severe cardiac function impairment.	69
Fig. (31): CT scan showing bilateral hemothorax.	71
Fig. (32): Complete detachment of the tracheal membrane.	76
Fig. (33): Supine chest radiograph shows the typical but rare fallen lung sign, pathognomonic of tracheobronchial rupture.	77
Fig. (34): Chest X-ray showing widening of mediastinum.	86
Fig. (35 a-c): Frontal crash at 100 km/h.	87
Fig. (36): Spiral CT displays typical patterns of injured aorta at the isthmic level.	90
Fig. (37): Standard CT scan of a traumatic aortic injury.	90

Fig. (38): Cross-sectional transesophageal echocardiographic view of the aortic isthmus in a patient with a partial aortic disruption following motor vehicle accident.	91
Fig. (39): Arteriography (left anterior oblique view).	91
Fig. (40 a-b): An intimal tear involving only the anterior wall is visible with peri-aortic effusion.	92
Fig. (41 a, b, c): Complete left brachial plexus palsy.	95
Fig. (42): Diagnostic approach to aortic branch injuries.	96
Fig. (43): Management of traumatic IVC injuries by anatomic location.	99
Fig. (44): Thoracoabdominal trauma with diaphragmatic rupture.	104
Fig. (45): Diaphragmatic rupture in a thoracoabdominal trauma.	104
Fig. (46): Thoracoabdominal trauma with diaphragmatic rupture.	105
Fig. (47): Truck accident. Spiral CT section shows an intrathoracic herniation of the stomach.	105