

TRAUMATIC PNEUMONITIS DUE TO COMBAT CHEST INJURY AS A RISK FACTOR FOR PNEUMONIA

O. K. Yakovenko

Abstract

The relevance of the problem of gunshot wounds and injuries as a result of the war with Russia continues to grow.

Gunshot wounds and chest injury can cause several life-threatening conditions: bleeding, airway obstruction, tension pneumothorax with pericardial tamponade, open pneumothorax, massive hemothorax, chest dissection, tracheobronchial injury, diaphragm damage, myocardial injury, rupture thoracic aorta, esophageal damage and lung contusion.

Lung contusion or traumatic pneumonitis is characterized by hemorrhage and swelling in the alveoli. This causes respiratory distress which develops 24 hours after lung injury, causing perfusion/ventilation mismatch by increasing pulmonary vascular resistance and decreasing lung compliance.

From February 24, 2022 to February 18, 2023, in the Pulmonology Department of Volyn Regional Clinical Hospital, the rate of hospitalized military patients with chest injury due to mine-explosive wounds, shrapnel wounds, gunshot bullet wounds, and stab-cut wounds of the chest amounted to 19.3% of all pulmonary cases among military, admitted this year (n=88). Penetrating chest injury occurred in 41.1% of cases, non-penetrating blunt chest injury (including behind armor blunt trauma) in 23.5 % of cases, chest trauma with soft tissue injury in 35.2 % of cases. Chest injury with fractured chest bones was detected in 47% of cases. In 52.9 % of cases, chest injuries and one stab-cut wound were on the side surface and chest, which was not protected by a bulletproof vest. Lung contusion or traumatic pneumonitis was observed in 70.5% of cases, including destruction in 29.4 %. Post-traumatic pneumonia was observed in 58.8 % of cases, that was caused by a non-hospital and hospital infection, pleurisy was observed in 17.6 % of cases. After chest injury, infiltrative-destructive pulmonary tuberculosis was detected in 5.8 % of cases and invasive pulmonary aspergillosis in 5.8 % of cases. Thus, the occurrence of a specific infection that can lead to destruction and aggravate destructive changes in the lung parenchyma should also be taken into account. Also, in 64.7 % of cases, metal, fragmentary, foreign bodies of the chest organs were found, and required further surgical removal. The article presents clinical cases of patients with chest injuries received as a result of military operations in Ukraine.

Key words: traumatic pneumonitis, lung contusion, gunshot wound, chest injury, behind armor blunt trauma, pneumonia.

Ukr. Pulmonol. J. 2023;31(2):60–68.

Oleg K. Yakovenko

Volyn Regional Clinical Hospital

Head of pulmonology department

MD, PhD

21, Grushevskogo av., Lutsk, 43005, Ukraine

volyn_pulmo@ukr.net