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SUBTOTAL HEMOTHORAX, ATELECTASIS OF THE LEFT LUNG AND HYDROPERICARDIUM ON THE 15TH DAY AFTER A PENETRATING STAB WOUND OF THE CHEST

(Case From Practice)

Z. K.Gafurov
A.E.Komiljonov
Andijan State Medical Institute, Andijan branch of the Republican Scientific Center for Emergency Medical Care, Uzbekistan

ABSTRACT

A case from practice is presented: subtotal hemothorax and tense hydropericardium on the 15th day after a stab wound in the area of the manubrium of the sternum.

INTRODUCTION

According to world and domestic statistics, injuries consistently occupy fourth place in the structure of population mortality, behind cardiovascular diseases, oncological pathology and diseases of the bronchopulmonary system. In the works of E.A. Wagner it is noted that chest injuries are the leading ones in most injuries and the cause of half of the deaths, and therefore the problems of diagnosis and treatment of chest injuries are still highly relevant.

According to various sources, penetrating chest injuries in the ratio to closed chest injuries are 1:9-1:10 and can be accompanied by damage to the lungs, diaphragm, mediastinal organs, as well as the aorta, trachea, bronchi and esophagus.

Clinically, penetrating chest injuries are accompanied by respiratory failure, tension pneumothorax, hemothorax in one volume or another, a combination of them, as well as acute cardiovascular failure associated with cardiac tamponade.

In the outcome of treatment of stab wounds (mostly knife wounds) of the chest, the decisive importance, in addition to the substrate of the wound, is the time elapsed from the moment of injury and delivery of the patient to the hospital, the presence of qualified personnel - ideally thoracic surgeons, the possibility of deploying an operating room in the shortest possible time and provision of adequate anesthetic management.

This report presents to your attention a case of subtotal hemothorax, atelectasis of the left lung and tense hydropericardium on the 15th day after a penetrating stab wound of the chest.

Patient N., 37 years old, was admitted to the AF RNCEMP with complaints of shortness of breath, dry cough, moderate pain in the left half of the chest, general malaise, and weakness.

From the anamnesis it was revealed that 15 days ago, there was a wound due to negligence with a kitchen knife (the patient fell and slipped at home), for which she was observed for 24 hours in the surgical department of the district medical association (no discharge note), and was discharged at the insistence of her husband. She notes the gradual appearance of complaints, for which an MSCT of the chest was performed, after which she contacted the AF RNCEM and was hospitalized in the department of thoracovascular surgery.

The general condition of the patient upon admission was grave, the position was forced. The skin is pale pink, in the area of the manubrium of the sternum in the projection of the transition of the manubrium of the sternum into the body of the sternum there is a side-by-

side, sutured scar up to 1.0 in length without signs of inflammation, the presence of swelling of the neck veins. Moderate cyanosis of visible mucous membranes. breathing through the nose, breathing rate up to 24 per minute.

The chest is of normal shape, the left half lags behind in the act of breathing, there is no subcutaneous emphysema or crepitus of bone fragments on the chest. Percussion on the right is a pulmonary sound, on the left is a shortening of the percussion sound in the middle-lower sections. Auscultation - vesicular breathing on the right, weakened vesicular breathing on the left in the middle-lower sections. Palpation is painless. Heart sounds are rhythmic and muffled. Pulse 106 beats per minute, A/D - 110/60 mm. rt. Art.

On the day of presentation, the patient underwent MSCT of the chest, which revealed the presence of a large hydrothorax on the left, hydropericardium and atelectasis of the left lung. Considering the severity of the patient's condition and the presence of fluid in the left pleural cavity, it was decided to perform drainage of the left pleural cavity as the first step.

Under local anesthesia with Procaine solution - 0.5% - 50.0 ml, after a control puncture of the pleural cavity on the left, a skin incision of up to 1.0 cm was made in the 7th intercostal space along the left posterior axillary line, a trocar was inserted into the pleural cavity along the sleeve of which into the pleural a disposable sterile drainage tube is inserted into the cavity - hemorrhagic fluid enters under pressure - the Ruvilois-Gregoire test is negative. The drainage tube is fixed to the skin with a U-shaped interrupted suture and connected to the underwater system. The patient tolerated the procedure satisfactorily, there were no complications. Up to 2000 ml of liquid was released through the drainage, the vacuum was stable.

Subsequently, the patient's condition showed significant improvement, the veins of the neck subsided, the tachycardia decreased somewhat, but on plain fluoroscopy of the chest, atelectasis on the left persisted and the shadow of the lower mediastinum increased.

Under general ETN (see anesthesia protocol), with the patient positioned on the right side, a lateral thoracotomy was performed along the 5th m/r with a skin incision up to 20 cm long. The left pleural cavity was opened layer by layer, attention was drawn to the narrowing of the intercostal spaces, multiple membranous and trabecular adhesions between the lung and the chest wall, as well as the diaphragm and mediastinum, in the pleural cavity up to 200.0 old fibrin-coated dark blood in the form of clots. Complete pneumolysis was performed using blunt and sharp methods, blood clots were removed.

Revision: the lung is reduced in volume due to the fibrinous shell covering both the upper and lower lobes, the mediastinal pleura is thickened, dull, the pericardium is tense, the heart pulsation is poorly visible. A longitudinal pericardiotomy was performed, up to 3.0 cm in length. - saturated serous fluid is evacuated under pressure - about 200.0 ml, the pericardial cavity is drained with an electric aspirator, washed with a furacillin solution - no blood clots are detected - rare sutures are placed on the pericardium. Decortication of the left lung was performed, a Z-shaped suture was placed on the depleurized area of the lower lobe, and a partial pleurectomy of the costal pleura area was performed.

When inflated, the lung completely fills the left hemithorax, pink with a moderate content of charcoal pigment. Hemostasis during the operation through electrocoagulation - dry. Repeated

sanitation of the pleural cavity with antiseptic solutions. Double bottom drainage, layer-by-layer suturing of the wound. Alcohol, aseptic dressing.

The postoperative period proceeded smoothly, the patient was discharged from the department of thoracovascular surgery on the 7th day after surgery in satisfactory condition.

Thus, for chest injuries localized in the Grekov zone, but without obvious symptoms of damage to the heart or large vascular structures, patients must be hospitalized in a specialized department and undergo dynamic observation, with monitoring of the red part of the blood, repeated X-rays and ultrasound examinations. The appearance of symptoms of compression of the mediastinal organs or intracavitary bleeding are absolute indications for emergency surgery.

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