

CHEST WOUND

(Case Study)

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**Abstract:** Penetrating chest wound with the presence of a wounding object in the wound is a complicated type of wound due to the possibility of additional damage to the abdominal or thoracic cavity organs, the more dangerous are the wounds within the Grekov zone, when the surgeon has no possibility to remove the wounding object due to possible fatal bleeding, if being in the heart tissues it closes the wound channel and prevents blood flow.

In this observation from the practice of a specialised department, the approach of surgeons at the wound of the left side of the chest in the projection of the heart, with the presence of a wounding object (kitchen knife) and oscillations of the latter in time with the heartbeat is indicative.

**Аннотация:** Проникающее ранение грудной клетки с наличием ранящего предмета в ране, является сложным типом ранения в виду возможности дополнительного повреждения органов брюшной или же грудной полостей, тем более опасны раны в пределах зоны Грекова, когда хирург не имеет возможности удалить ранящий предмет в виду возможного фатального кровотечения, если находясь в тканях сердца он закрывает раневой канал и препятствует кровоистечению.

В данном наблюдении из практики специализированного отделения, показателен подход хирургов при ранении левой половины грудной клетки в проекции сердца, с наличием ранящего предмета (кухонный нож) и колебаниям последнего в такт сердцебиению.

Тактика заключалась в торакотомии без изменения первоначального положения больного, а так же без удаления ранящего предмета, после производства торакотомии ревизия перикарда на предмет его ранения или же нахождения ножа вне пределов сердца и только после этого удаление ранящего предмета.

**Аннотация:** Кўкрак қафаси тешиб ўтувчи тигли жарохатни етказувчи жисм жарохатда қолиши - ички аъзоларни кўшимча жарохатланиши хавфи билан янада холатни оғирлаштирадиган омил бўлади.

Жарохат Греков зонасида, жойлашган бўлса, тигли жисмни олиб ташлаш ўлимга олиб келиши мумкин бўлган қон кетишни юзага келтириши мумкин, негаки ёт жисм жарохат каналини ёпади ва қон кетишининг олдини олади.

Ихтисослашган бўлим амалиётидан олинган ушбу кузатувда жарохат кўкрак қафаси чап ярми юракнинг проекциясида жойлашган бўлиб, тигли жарохат етказган жисм жарохатда жойлашган бўлиб юрак билан бирга тебраниб турибди.

Шунинг учун хирурглар тактикаси чап олд-ёнбош торакотомияни беморнинг дастлабки холатини ўзгартирмасдан, яъни бурмасдан, остига валикларни жойлаштирмасдан ва тигли жисмни олиб ташламасдан бажарилиши таъминланган. Торакотомиядан сўнг юрак жарохати йўқлигига иқроқ бўлгандагина жисмни олиб ташлаб операция давом эттирилиши кўрсатилган.

Introduction. Trauma is a leading cause of death in the population, behind cardiovascular disease, cancer, and bronchopulmonary diseases. E.A. Wagner's work notes that chest wounds are the

leading cause of most injuries and account for half of all deaths, making the diagnosis and treatment of chest wounds highly relevant.

Compared to closed chest injuries, penetrating wounds are much less common, but they can manifest as life-threatening bleeding and disruption of the integrity of the mediastinum, lung, and diaphragm.

The presence of an emergency medical care system within the healthcare system has made it possible to provide not only qualified but also specialized care to many categories of patients, including those discussed in this report.

**Case Study.** This report presents a case of a penetrating stab wound to the left side of the chest with a knife still present in the wound. Patient A., 54, was delivered to the Andijan Branch of the Republican Scientific Center for Emergency Medical Care (RBRCEMC) by ambulance and immediately transferred from the emergency room to the operating room. The on-call anesthesiology team and surgeons from the thoracovascular department were called.

During the surgical examination, the patient was sedated. A kitchen knife was present in the 4th-5th intercostal space along the left midclavicular line. The wound was bleeding, and the knife was moving in time with the heartbeat.

Under general endotracheal anesthesia, with the patient in a supine position, an anterolateral thoracotomy was performed in the 5th intercostal space with the knife still in place and without applying a cushion. The skin incision was up to 20 cm long. The knife was positioned along the wound's medial angle. Under visual and digital control, the knife position is checked to see that the knife tip is in the lung tissue. The knife is removed. The patient is placed in the anterolateral thoracotomy position, cushions are placed, and retractors are installed. Inspection: up to 500.0 ml of blood is in the left pleural cavity, there is a defect in the lower lobe of the left lung in the projection of segment 8, measuring up to 2.0 x 0.3 cm. with active bleeding and pneumorrhage. The left lung wound is sequentially sutured using a "Z"-shaped suture, hemothorax is aspirated, and the pleural cavity is sanitized with antiseptic solutions. The pericardium is thin, transparent, there are no signs of injury or cardiac tamponade, therefore, pericardiectomy was not performed. The left dome of the diaphragm also shows no signs of damage. Repeated pleural cavity debridement with antiseptic solutions, hemostasis during surgery using electrocoagulation, stable aerostasis, and the lung completely fills the hemithorax when inflated. Double inferior drainage, layered wound closure, and an alcohol-based aseptic dressing.

The postoperative course was uneventful. The left pleural drainage tubes were removed on days 4 and 5 postoperatively. The patient was discharged from the department in satisfactory condition on day 7 postoperatively.

### **Discussion.**

A case report is presented: a penetrating stab wound to the left side of the chest with a kitchen knife lodged in the wound. The recommended approach is to perform a thoracotomy without removing the foreign object to prevent a fatal outcome that could occur with a heart wound.

The fate of the wounding object remains controversial. While some authors recommend removing it prehospital with an occlusive dressing, others strongly oppose its removal due to potential complications.

Conclusion. Thus, in cases of penetrating chest wounds with a wounding object in the wound, to prevent fatal complications before performing a thoracotomy and determining the precise location of the object, it is necessary to adhere to the following tactics: careful transport outside and inside the hospital, leaving the wounding object in the wound, and performing a thoracotomy without the use of bolsters and other fixation devices used in conventional thoracotomy.

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