ADVANCED SURGICAL MANAGEMENT FOR THORACOABDOMINAL INJURIES

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Abstract: The modern improved algorithm of diagnosis and treatment of thoracoabdominal injuries is described in detail in this article. Traditional treatment methods with high efficiency and modern endovideosurgical treatment methods were used in the development of this algorithm. The development of this algorithm is based on highly effective traditional treatment and modern endovideosurgical methods. An improved algorithm for the diagnosis and treatment of patients with thoracoabdominal injuries allows for immediate decision-making in the diagnosis and treatment of patients. As well as, it leads to a reduction in the number of open explorative operations (diagnostic thoracotomy and laparotomy), and a decrease in complications after operations.
Key words: Thoracoabdominal injuries, laparascopy, thoracoscopy

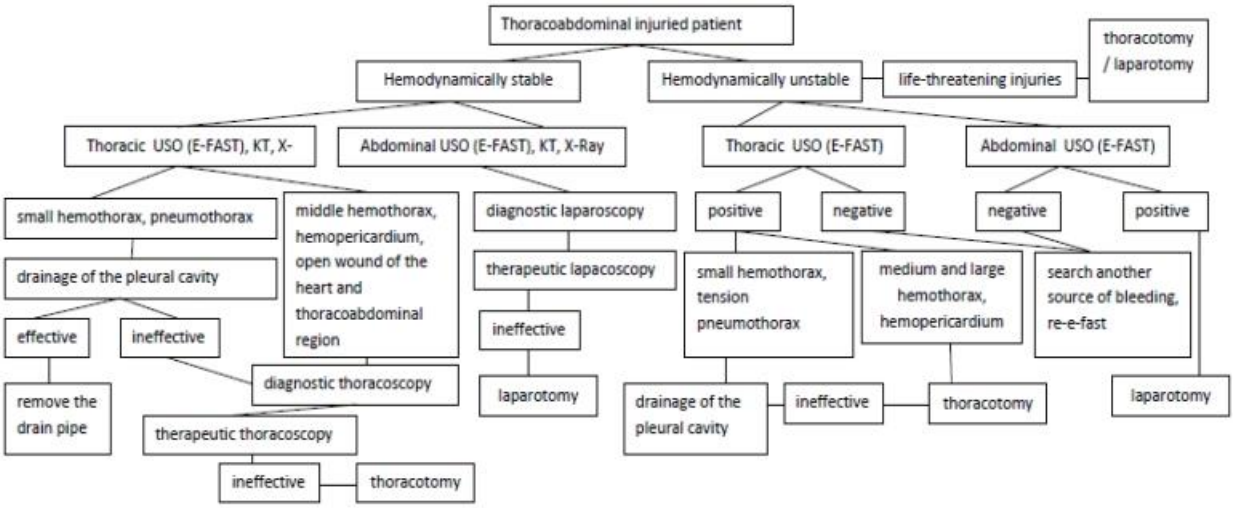
Patients with thoracoabdominal injuries are considered the most difficult category of patients in emergency surgery, and the possibility of injury in two body cavities at the same time leads to difficulties in their diagnostic and surgical approach [2,5,6,10]. In this group of patients, a large number of factors prevent urgent diagnostic evaluation and planning of surgical treatment. Clinical urgency limits the time to assess the patient's severity, and the patient's unstable condition often prevents radiological examinations [3,4,9]. In patients who require evaluation, identification of the most severe lesion is important to avoid treatment delays and increased morbidity and mortality [7,8,10,13].

New methods of diagnosis and treatment of thoracoabdominal injuries should combine high information content and low traumatic impact. Among them, one of the most promising methods is endosurgical methods, which allow for less invasive diagnosis in the diagnosis of patients and, if necessary, an opportunity to perform an examination without expanding the wound [1,4,5,11,12].

Given the clinical difficulties and large volumes of these complex injuries, in our clinic hospital we tried to review our experience with management of thoracoabdominal injuries. The purpose of this study is to improve the results of treatment patients with thoracoabdominal injuries by describe the sequence of surgical interventions and developing an optimal diagnosis and treatment algorithm based on the use of endosurgical methods.

Analysis of the results of diagnosis and surgical treatment of patients with thoracoabdominal injuries using traditional methods (thoracotomy, laparotomy, diagnostic peritoneal lavage) showed their ineffectiveness. Due to this, there was a need to improve the methods of diagnosis and treatment of patients by modern diagnostic and treatment methods. Some success in this direction was the consideration of the severity of the patient's condition and the wider

introduction of less invasive (endovideosurgery) methods into practice. The developed improved algorithm was developed based on the actual diagnostic capabilities of the examination methods. For developing algorithm, we tried to make it simple, understandable and accurate and acceptable enough for all categories of patients with thoracoabdominal injuries. This developed algorithm can be used simultaneously for chest injuries, abdominal injuries, and joint injuries (pic.1).



Pic.1. Improved surgical algorithm of thoracoabdominal injuries

Firstly, patient's hemodynamic condition is assessed bu physical examinations, if patient is hemodynamically unstable and detecting of signs of damage to vital organs, should immediately. If the patient is hemodynamically unstable and without signs of damage to vital organs, the patient should undergo an immediate extended-FAST of chest and abdominal cavity by ultrasound. Positive e-FAST in the chest examination is identified with a small hemothorax and a tension pneumothorax pleural drainage is done. But drainage of the pleural cavity is ineffective the thoracotomy is performed immediately.

Positive e-FAST and medium and large hemothorax or hemopericardium is identified, thoracotomy is performed. e-FAST positive abdomen is detected, should immediately laparotomy and e-FAST of the chest and abdomen is negative, it is necessary to search for another source of bleeding in the patient and conduct E-FAST again.

Chest and abdominal focused ultrasound (E-FAST), computed tomography, X-ray and other instrumental and laboratory tests are performed, when the thoracoabdominal injuried patient is hemodynamically stable. As a result of examinations small hematothorax or pneumothorax is detected the drainage of the pleural cavity is used. If the drainage of the pleural cavity is ineffective and also the examination reveals a medium and large hemothorax, hemopericardium, wound of the heart and thoracoabdominal region, videothoracoscopy is performed. When it is

impossible doing surgery by videothoracoscopy may to converse to thoracotomy. In abdominal examinations free gas and liquid are identified videolaparoscopy is performed. If videolaparoscopic interventions are ineffective, conversion to laparotomy is performed.

The modern improved algorithm of diagnostic and surgical management based on the analysis of the diagnostic value of different examination methods in thoracoabdominal traumas, as well as approached analysis of the results of different surgical tactics.

References:

1. Амарантов Д. Г. и др. Современные взгляды на диагностику ранений диафрагмы при торакоабдоминальных ранениях //Политравма. – 2018. – №. 4. – С. 76-81.
2. Рахимов Б.М., Руденко М.С., Слугин А.Е. [и др.] Диагностика и лечение торакоабдоминальных ранений / // Актуальные вопросы хирургии:материалы XIV съезда хирургов республики Беларусь. – Витебск, 2010. – С. 57.
3. Тулупов А. Н. и др. Торакоабдоминальная травма. – 2016.
4. Федоровцев В. А., Сидоров М. А., Десятникова И. Б. Диагностическая ценность лапароскопии при травме живота //Журнал МедиАль. – 2014. – №. 1 (11). – С. 28-29.
5. Хаджибаев А.М., Шарипова В.Х.,. Султанов П.К, Джураев Ж.А. Современные взглды на диагностиу и лечение больных с сочетанной травмой. Вестник экстренной медицины. 2020 том 13. №3 79-89
6. Dickson J.F. The operative management of thoracic and thoracoabdominal wounds in the combat zone in Korea. I J.F. Dickson, H.R. Homberger. II J. Thorac. Cardiovasc. Surg.-1961.-Vol.41.- 3.-P.318-324.
7. Khat'kov IE, Izrailov RE, Pankratov AA, Zhdanov AV. [Opportunities of endovideosurgical interventions in thoracic and abdominal trauma]. Khirurgiia (Mosk). 2016;(1):15-19. Russian. doi: 10.17116/hirurgia2016115-19. PMID: 26977605.
8. Khodzhimatov G. M., Yakhyoev S. M. Nature and structure of thoracoabdominal injuries //Cardiometry. – 2022. – №. 22. – С. 128-132.
9. Kurbonov KM, Makhmadov FI, Nazirboev KR, Aminov AA. Endovideokhirurgiya pri povrezhdeniyakh grudi i zhivota [Video-assisted surgery in the diagnosis and treatment of thoracic and abdominal injuries]. Khirurgiia (Mosk). 2016;(9):35-38. Russian. doi: 10.17116/hirurgia2016935-38. PMID: 27723693.
10. Matsushima K, Khor D, Berona K, Antoku D, Dollbaum R, Khan M, Demetriades D. Double Jeopardy in Penetrating Trauma: Get FAST, Get It Right. World J Surg. 2018 Jan;42(1):99-106. doi: 10.1007/s00268-017-4162-9. PMID: 28779381.
11. Minhodzhievich K. G. et al. TORAKOABDOMINAL SHIKASTLANGAN BEMORLARNING DAVOLASH NATIJALARI //JOURNAL OF BIOMEDICINE AND PRACTICE. – 2023. – Т. 8. – №. 1.
12. Stengel D, Leisterer J, Ferrada P, Ekkernkamp A, Mutze S, Hoenning A. Point-of-care ultrasonography for diagnosing thoracoabdominal injuries in patients with blunt trauma.

Cochrane Database of Systematic Reviews 2018, Issue 12. Art. No.: CD012669. DOI: 10.1002/14651858.CD012669.pub2.

13. Yahyoev S. O., Khodzhimatov G. M. Diagnostic methods and surgical treatment of patients with thoracoabdominal traumas (review of the literature) //Kardiochirurgia i Torakochirurgia Polska/Polish Journal of Thoracic and Cardiovascular Surgery. – 2022. – T.