Progress of Science: Theory and Practice
Volume 1, Issue 1, December, 2024

ABDOMINAL INJURY IN SEVERE COMBINED INJURIES

Khaidarov Numon Bozor ugli

Samarkand Branch of RRCEM, Samarkand, Uzbekistan

Abstract: Abdominal injury in severe combined trauma is a particular type of injury and one of the leading causes of deaths of the wounded and injured both in peacetime and war time. Damage to the abdomen is directly correlated with 40% of fatal out comes recorded annually due to car accidents and has a significant impact on the outcome in another 48% of accidents; abdominal trauma is usually accompanied by significant dysfunctions of the vital organs of the abdominal cavity and retroperitoneal space, which subsequently cause a metabolic disorder, the activities of other organs and systems. Most patients with severe combined abdominal trauma can be saved with a quick diagnosis, as well as modern active surgical tactics.

Key words: abdominal trauma, early diagnosis, surgical tactics.

I.Introduction

In recent years, there has been a steady increase in injuries throughout the world. Technogenic and natural disasters, local military conflicts, transport and industrial accidents in 45-55% of all injuries lead to combined and multiple damage to organs and systems of the human body, and, as a result, to high sanitary losses in the first hours and days1 (1,12,20). According to Shapota Yu.B. (1990) and Afonina A.A. (1998), with isolated trauma to one abdominal organ, mortality ranges from 5.1 to 20.4%, and with combined trauma from 18.3 to 64% (3, 6, 7, 18). Closed abdominal injuries with combined trauma are accompanied by a large number of complications and high mortality due to difficulties in diagnosis and frequent combination with damage to other organs and systems (4, 5, 16, 17). A particular problem is the diagnosis and treatment of combined closed abdominal trauma, accompanied by shock. Hospital mortality with this variant of the pathology is from 17.3 to 72.7%. Combined injury is the simultaneous damage to two

or more of the seven anatomical areas of the body by one traumatic agent. Among the causes of death from injuries, combined traumatic injuries account for more than 55%, although they make up 8-10% of inpatients with injuries (18,19,20). Damage to the abdomen accounts for from 1.5 to 34.5% of peacetime injuries, but their frequency and severity continue to increase. According to (18), with severe combined trauma, abdominal organs are damaged in almost 30% of victims.

Such an injury due to the severity of damage to internal organs and diagnostic difficulties is characterized by a high frequency of complications and mortality, which, according to various authors, ranges from 25 to 65%. But these injuries are most severe in their consequences, causing almost a quarter of disabilities and every third death. (21,22,23).

According to E.Yu. Valieva (2015), combined trauma is one of three causes of mortality. The proportion of deaths at working age is 29%, the average age is 38.5 years. Patients with combined trauma make up 8-14% of all inpatients and give more than 55% of all deaths from injuries.

Over the past 5 years, the mortality rate from road accidents in Russia has increased by 65%, and the death toll, according to the traffic police, reaches 34-37 thousand people a year (19,25, 25, 19, 31). In Uzbekistan annually more than 800 thousand people receive various injuries. It was found that injuries due to traffic accidents account for about 5% of all injuries. (24).

II. Materials and methods The treatment of victims of severe combined abdominal injuries was carried out in the conditions of round-theclock emergency surgical care in the Samarkand branch of the RRCEM in Samarkand.
For the period from 2013-2023. 2915 people with combined abdominal trauma and organs of retroperitoneal space entered the Samarkand branch of the RRCEM, of which 480 (16.39%) victims were operated on with combined trauma of the abdominal organs.

As can be seen from table 1 for this period, the number of received Samarkand branch of the RRCEM increased by 6 times, as a result of the “war on the roads”. Almost all the

victims were delivered by ambulance (103) - 420 (87,5%). The age category of those victims who were included in the study consisted of people from 17 to 89 years old (33.8 ± 13.4), given the fact that the majority of them (n = 381 - 79.7%) were representatives able-bodied part of the population (under 55), mostly men (n = 288 - 59.8%). The sorting of victims with abdominal injuries in cases of combined trauma by gender and age is illustrated

By passing vehicles - 34 (7.08%), self-treatment - 26 people (5,41%), 67 (13,95%) victims with combined severe abdominal injuries were received without assistance. Each victim who was conscious at the time of admission was informed, after which he gave written consent to the study and treatment. Conservative therapy was performed in 32 (11.48%) patients with abdominal injuries (liver in 25 and spleen in 6) in the presence of combined trauma. Among 480 victims, 447 (93.5%) were operated on. Of these, a fatal outcome was observed in the control group - out of 210 in 119 (57.21%), and in the main group - out of 270 - 88 (32.59%). In most cases, the cause of the injury was a traffic accident (n = 358 - 74.89%), in 51 (10.66%) of the injured, the reason for admission to the intensive care unit was unlawful injury (conflict situation), in 61 (12.76%) catatrauma.

The data in table 4 indicate that 480 (100%) of the examined patients were admitted in a state of hemorrhagic shock (I, II, III, and IV degrees).The following table 2.5 illustrates the timing of their hospitalization in the hospital from the moment of injury. The severity of the shock was evaluated using the Algover-Gruber index (shock index). Sorting the victims according to the degree of hemorrhagic shock is presented Most of the patients were hospitalized up to 3 hours from the moment of injury (n = 314 - 65.3%). Moreover, in the first hour after the injury, only 60 (7.9%) patients Alcohol intoxication was observed in 259 (53.76%) victims.

Most often, abdominal injuries were combined with cranio-cerebral and chest injuries (26,3–55.02% ofcases). Of the 480 patients with combined abdominal trauma in 261 cases (54.6%), the predominant damage was abdominal trauma, CCT in 133 cases (28.4%), in

60 patients (12.5%) - chest injuries and in 26 (5, 5%) cases, combined damage was detected. It is important to mention the fact that in 96.1% of cases injuries of two or more anatomical areas were detected.

The most common cases were injuries to the small and large intestines (265), spleen (167), liver (131 cases), duodenal injury (18), pancreas (15), stomach (54), mesenteric tears (89), omentum (59), bladder (39) and kidney (45 patients). The total number of injuries of abdominal organs detected in 480 patients was 880. In addition, 275 patients had extra-abdominal injuries

III. Results and discussion

In these observations, we noted two prevailing syndromes: developing peritonitis syndrome and intra-abdominal hemorrhage syndrome. Syndrome of developing peritonitis occurs when injuring hollow organs. Intraabdominal hemorrhagic syndrome is observed in case of injury to the parenchymal organs or blood vessels of the mesentery and omentum, retroperitoneal space. We adhere to the following treatment tactics: in a distinct clinic of internal hemorrhage and acute peritonitis, an emergency operation (in 232 patients). In the absence of confidence in the presence of internal bleeding and peritonitis, along with antishock therapy, such diagnostic methods are performed as pleural puncture (in 31), laparocentesis (in 40), laparoscopy (in 127), R-graphy: skulls (in 51), pelvis (30), spine (37), retrograde cystography (15), ultrasound (201) and computed tomography (40 patients). The most frequent combined abdominal trauma was damage to the parenchymal organs 298 (62.34%) in combination with damage to the intestines (44), bladder (15), and kidney (12). In this case, hemodynamic changes were characteristic, as well as a decrease in a number of hematological parameters (hemoglobin, hematocrit, red blood cell count), oliguria and leukocytosis with spleen ruptures (in 167). At the same time, the fact that trauma to the liver, spleen, kidney, extensive retroperitoneal hematomas was more often observed with damage to the chest,

pelvis and spine was taken into account. Upon admission, symptoms of internal bleeding were noted in 250 (52.3%) patients and 48 (10.0%) patients with symptoms of peritonitis. No less important cause of death were complications. The main cause of death among the 480 patients we analyzed was the combination of injuries in 127 (shock and blood loss) victims (26.56%). Among patients with injuries of the abdominal organs, they were observed in 80 (16.73%) in the postoperative period

IV.Conclusion

1. Diagnosis is especially difficult when abdominal injuries are combined with trauma to the skull, chest, pelvis, and urinary system. In everyday practice of emergency surgery, abdominal trauma occupies a significant place. At the same time, multiple and combined injuries are distinguished by the severity of the course and the difficultiesof diagnosis.

2. The imposition of laparostomy, according to our clinical experience, is one of the best ways to timely diagnose and treat diffuse peritonitis. With combined trauma, the clinical picture of a catastrophe in the abdominal cavity can manifest itself in the form of attrition of pathognomonic symptoms of an “acute abdomen” to their complete absence or in the form of their sharp severity in the absence of damage to internal organs.

3. The most important in the treatment of postoperative peritonitis with relaparotomy is the correctly chosen surgical tactics, the most important element of which is the elimination of the source of peritonitis or its delimitation from the free abdominal cavity. The main cause of postoperative complications requiring repeated laparotomy were peritonitis and intraabdominal abscesses.

4. The most reliable diagnostic method for closed abdominal injuries is ultrasound, and its information content amounted to 100%. Both diagnostic and therapeutic video laparoscopy, its resolution is 95%. Ultrasound revealed 35-55 ml of fluid in the abdominal

cavity, assessed the contours of the parenchymal organs, and subjectively determined the amount of blood loss.

REFERENCES:

1 Курбонов Н. А. и др. Modern approaches to the treatment of deep burning patients //Узбекский медицинский журнал. – 2022. – Т. 3. – №. 2.
2 Babajanovich K. Z. et al. QORIN OLD DEVORI QISILGAN CHURRALARINI DAVOLASHDA TARANGLASHMAGAN GERNIOPLASTIKADAN FOYDALANISH (ADABIYOTLAR SHARHI) //JOURNAL OF BIOMEDICINE AND PRACTICE. – 2024. – Т. 9. – №. 2.
3 Qurbonov N. A. et al. SURUNKALI PANKREATITNI DIAGNOSTIKA QILISH VA DAVOLASHNING ZAMONAVIY USULLARI //Journal the Coryphaeus of Science. – 2023. – Т. 5. – №. 4. – С. 33-41.
4 Temirovich A. M. et al. CRF AND CKD: MODERN APPROACHES TO TERMINOLOGY, CLASSIFICATION, DIAGNOSIS AND TREATMENT //Research Focus. – 2023. – Т. 2. – №. 1. – С. 79-90.
5 Хурсанов Ё. Э. У., Жуманов Х. А. У., Эргашев А. Ф. СОВЕРШЕНСТВОВАНИЕ МЕТОДОВ ЛЕЧЕНИЯ БОЛЬНЫХ С ТЯЖЕЛЫМИ ОЖОГАМИ //Research Focus. – 2023. – Т. 2. – №. 1. – С. 332-340.
6 Alisherovich U. K., Rashidovich S. H., Ugli K. Y. E. OUR EXPERIENCE IN CONSERVATIVE TREATMENT OF SPLEEN INJURY IN CLOSED ABDOMINAL TRAUMA //Research Focus. – 2023. – Т. 2. – №. 1. – С. 319-325.
7 Alisherovich U. K. et al. Evaluation of the effectiveness of multi-stage surgical tactics in severe liver damage //Research Focus. – 2023. – Т. 2. – №. 1. – С. 312-318.

8 Авазов А. А., Хурсанов Ё. Э. ОПТИМИЗАЦИЯ ЛЕЧЕБНО-ДИАГНОСТИЧЕСКИХ МЕТОДОВ НЕКРОЭКТОМИИ У БОЛЬНЫХ С РАННИМИ ОЖОГАМИ //Journal the Coryphaeus of Science. – 2023. – Т. 5. – №. 2. – С. 19-22.

9 Avazov A. A., Xursanov Y. E. ERTA KUYGAN BOLALARDA AUTODERMOPLASTIKA QILISHNING ZAMONAVIY USULLARI //Journal the Coryphaeus of Science. – 2023. – Т. 5. – №. 2. – С. 23-28.

10 Akhmedov R. F. et al. Our experience in the treatment of burn sepsis //Actual problems of thermal trauma. Emergency Surgery.-Saint-Petersburg. – 2021. – С. 10-11.

11 Нормаматов Б. П., Сатторов А. Х., Хурсанов Ё. Э. СОВРЕМЕННЫЕ МЕТОДЫ ДИАГНОСТИКИ И ЛЕЧЕНИЯ БОЛЬНЫХ ЖЕЛЧНОКАМЕННОЙ БОЛЕЗНЬЮ И ЕЕ ОСЛОЖНЕНИЯМИ //THEORY AND ANALYTICAL ASPECTS OF RECENT RESEARCH. – 2023. – Т. 2. – №. 13. – С. 158-167.

12 Нормаматов Б. П., Сатторов А. Х., Хурсанов Ё. Э. К. СОВРЕМЕННЫЕ И АКТУАЛЬНЫЕ МЕТОДЫ ДИАГНОСТИКИ И ЛЕЧЕНИЯ ОСТРОГО ПАНКРЕАТИТА //MODELS AND METHODS FOR INCREASING THE EFFICIENCY OF INNOVATIVE RESEARCH. – 2023. – Т. 2. – №. 21. – С. 92-102.

13 Нормаматов Б. П. К., Сатторов А. Х. К., Хурсанов Ё. Э. К. ОПТИМИЗАЦИЯ ХИРУРГИЧЕС^ Й ТАКТИКИ ПРИ ОТКРЫТЫХ И ЗАКРЫТЫХ ТРАВМАХ БРЮШТОЙ ПОЛОСТИ //MODELS AND METHODS FOR INCREASING THE EFFICIENCY OF INNOVATIVE RESEARCH. – 2023. – Т. 2. – №. 21. – С. 114-121.

14 Шоназаров И. Ш., Мизамов Ф. О., Хурсанов Ё. Э. Эффективность приоритетного использования миниинвазивных вмешательств в хирургическом лечении осложненных форм острого холецистита //Research Focus. – 2023. – Т. 2. – №. 1. – С. 36-43.

15 Шоназаров И. Ш., Мизамов Ф. О., Хурсанов Ё. Э. Диапевтические и рентгенэндобилиарные вмешательства в коррекции осложнений после холецистэктомии //Research Focus. – 2023. – Т. 2. – №. 1. – С. 44-51.

16 Тухтаев Ж. К., Хурсанов Ё. Э. У. Диффузный токсический зоб щитовидной железы //Research Focus. – 2023. – Т. 2. – №. 1. – С. 20-31.

17 Ачилов М. Т. и др. ОЦЕНКА ЛЕЧЕБНОГО ПОЛИХИМИОТЕРАПИИ ПРИ РАКЕ МОЛОЧНОЙ ЖЕЛЕЗЫ //Research Focus. – 2023. – Т. 2. – №. 1. – С. 62-69.

18 Elmuradov G. O. K. et al. QORIN BO ‘SHLIG ‘I YOPIQ JAROHATLARIDA SONOGRAFIYA VA VIDEOELAPAROSKOPIYANI QO’LLASH //Research Focus. – 2023. – Т. 2. – №. 1. – С. 173-180.

19 Shakirov B. M., Avazov A. A., Umedov X. A. Peculiarities of hand burn treatment in the conditions of moist medium //ISJ Theoretical & Applied Science, 04 (108). – 2022. – С. 289-291.

20 Джаббаров Ш. Р., Хурсанов Ё. Э. У. STANDARDIZATION OF THE THERAPEUTIC DIAGNOSTIC APPROACH FOR COMBINED CLOSED INTESTINAL INJURY //Research Focus. – 2022. – Т. 1. – №. 3. – С. 120-132.

21 Джаббаров Ш. Р., Хурсанов Ё. Э. У. ПОСЛЕОПЕРАЦИОННОЙ ЛЕТАЛЬНОСТИ ПРИ ОСТРОМ ХОЛЕЦИСТИТЕ //Research Focus. – 2022. – Т. 1. – №. 3. – С. 152-161.

22 Хамроев Г. А., Хурсанов Ё. Э. ОРГАНОСОХРАНЯЮЩАЯ ОПЕРАЦИЯ ПРИ МАССИВНОМ РАЗМОЗЖЕНИИ ЯИЧКА //Research Focus. – 2022. – Т. 1. – №. 3. – С. 185-194.

23 Даминов Ф. А., Хурсанов Ё. Э., Карабаев Х. К. Наш опыт профилактики и лечения полиорганной недостаточности у тяжелообожженных //Research Focus. – 2022. – Т. 1. – №. 3. – С. 143-151.

24 Даминов Ф. А., Карабаев Х. К., Хурсанов Ё. Э. Принципы местного лечения ожоговых ран у тяжелообожженных (Обзор литературы) //Research Focus. – 2022. – Т. 1. – №. 3. – С. 133-142.

25 Саттаров Ш. Х., Рузибаев С. А., Хурсанов Ё. Э. ОПТИМИЗАЦИЯ ПУТИ КОРРЕКЦИИ ЭНДОТОКСИКОЗА ПРИ ОСТРОМ ПЕРИТОНИТЕ (ОБЗОР ЛИТЕРАТУРЫ) //Research Focus. – 2022. – Т. 1. – №. 2. – С. 144-150.

26 Эльмурадов А., Хурсанов Ё. Э. У. Постколониальная/деколониальная критика и теория международных отношений //Research Focus. – 2022. – Т. 1. – №. 2. – С. 198-208.

27 Рузибоев С. А., Авазов А. А., Хурсанов Е. Э. СРАВНИТЕЛЬНЫЕ РЕЗУЛЬТАТЫ ЛЕЧЕНИЯ ПОСЛЕОПЕРАЦИОННЫХ И РЕЦИДИВНЫХ ГРЫЖ ПЕРЕДНЕЙ БРЮШНОЙ СТЕНКИ //Research Focus. – 2022. – Т. 1. – №. 2. – С. 184-191.

28 Авазов А. А., Хурсанов Ё. Э. У., Мухаммадиев М. Х. ВОЗМОЖНОСТЬ ПРИМЕНЕНИЯ ИНТЕГРАЛЬНОЙ ШКАЛЫ BISAP ДЛЯ ПРОГНОЗИРОВАНИЯ РАЗВИТИЯ ТЯЖЕЛОГО ОСТРОГО ПАНКРЕАТИТА //Research Focus. – 2022. – Т. 1. – №. 2. – С. 158-164.

29 Саттаров Ш. Х., Рузибаев С. А., Хурсанов Ё. Э. РЕЗУЛЬТАТЫ ЛЕЧЕНИЯ ОСТРОГО РАЗЛИТОГО ГНОЙНОГО ПЕРИТОНИТА С ПРИМЕНЕНИЕМ ЛАПАРОСТОМИИ //Research Focus. – 2022. – Т. 1. – №. 2. – С. 238-242.

30 Авазов А. А., Хурсанов Ё. Э. У., Шакиров Б. М. ҚЎЛНИНГ ЧУҚУР КУЙИШИНИ ДАВОЛАШ ТАКТИКАСИ //Research Focus. – 2022. – №. Special issue 1. – С. 35-42.

31 Элмурадов Г. К., Шукуров Б. И., Хурсанов Ё. И. Видеоэндохирургия в диагностике и лечении разрывов диафрагмы //theory and analytical aspects of recent research. – 2022. – Т. 1. – №. 7. – С. 40-58.

32 Erkinovich K. Y. Methods of early surgical treatment of burns //Central Asian Research Journal for Interdisciplinary Studies (CARJIS). – 2022. – Т. 2. – №. Special Issue 4. – С. 184-188.

33 Abdurakhmanovich A. A., Furkatovich A. R. Methods of early surgical treatment of Burns //Web of Scientist: International Scientific Research Journal. – 2022. – Т. 3. – №. 6. – С. 528-532.

34 Курбонов Н. А., Ахмедов Р. Ф. Modern approaches to the treatment of deep burning patients //Узбекский медицинский журнал. – 2022. – Т. 3. – №. 2.

35 Шакиров Б., Авазов А., Хурсанов Ё. Comprehensive treatment of patients with extensive deep burns lower limbs //EurasianUnionScientists. – 2022. – С. 24-26.

36 Нормаматов Б. П., Сатторов А. Х. К., Хурсанов Ё. Э. К. СОВРЕМЕННЫЕ И НОВЫЕ МЕТОДЫ ДИАГНОСТИКИ И ЛЕЧЕНИЯ ХРОНИЧЕСКОГО И ОСТРОГО ПАНКРЕАТИТА //MODELS AND METHODS FOR INCREASING THE EFFICIENCY OF INNOVATIVE RESEARCH. – 2023. – Т. 2. – №. 21. – С. 103-113.

37 Erkin o'g'li X. Y. et al. ТАКТИКА ХИРУРГИЧЕСКОГО ЛЕЧЕНИЯ БОЛЬНЫХ С ГЛУБОКИМИ ОЖОГАМИ //JOURNAL OF BIOMEDICINE AND PRACTICE. – 2022. – Т. 7. – №. 5.

38 Abdurakhmanovich A. A. et al. KUYISHLARDA ERTA XIRURGIK DAVOLASH USULLARI //JOURNAL OF BIOMEDICINE AND PRACTICE. – 2022. – Т. 7. – №. 4.

39 АБДУРАХМАНОВ Д. Ш. ҚИСИЛГАН ҚОРИН ЧУРРАЛАРИДА ТАРАНГЛАШМАГАН ГЕРНИОАЛЛОПЛАСТИКА //JOURNAL OF BIOMEDICINE AND PRACTICE. – 2023. – Т. 8. – №. 6.