MODERN MEDICINE AND PRACTICE
https://inovatus.es/index.php/ejmmp
EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE
Vol. 5 No. 1 (Jan - 2025) EJMMP ISSN: 2795-921X

MINIINVASIVE DIAGNOSIS AND TREATMENT METHODS OF THORACOABDOMINAL INJURIES

Umedov Kh. A.
PhD of the Department of Surgical Diseases №. 2. Samarkand State Medical University. Samarkand, Uzbekistan Samarkand branch of RRCEMP

Abstract: To study the possibility of a fast (Focused Assessment with Sonography in Trauma – targeted sonographic examination in trauma) protocol in the selection of early diagnostic and treatment tactics in patients who have made an urgent appeal with closed chest and abdominal injuries.

Key words: trauma, chest, abdominal cavity. Diagnostics, ultrasound, FAST protocol, surgical treatment.

Introduction. According to experts from the World Health Organization, "the death caused by mechanical injuries is the 3rd highest of all deaths occurring, and the 1st highest among those who died under the age of 40, and the 80% gacha among adolescents and young people". The rate of internal limb injury in closed abdominal injuries ranges from 12% to 47%, while in closed chest injuries the rate of internal limb injury ranges from 7.4% to 18.9%, gacha [1]. When chest and abdominal injuries come together, damage to the internal organs is 40%. A characteristic aspect of changes in the structure of traumatism in the last decade is characterized by an increase in the severity of injuries, increasing in most cases due to joint and numerous traumas, the rate of their occurrence is 12.0-86.0% [2,3]. Injuries in this category are characterized by high mortality and disability at 50.0% and 74.0%, respectively. Increased incidence of cosine lesions requires optimization of diagnostic and treatment methods in this pathology. In this regard, the demand for the study of this problem continues to be relevant [4,8].

Injuries from road traffic accidents lead to severe complications and death in many cases. In patients, nafakat is unable to provide full information about the lesions of the abdominal and thoracic organs on the basis of subjective and objective data [5,9].

From the point of view of modern surgery, injury syndromes in closed abdominal lesions, the free abdominal fluid syndrome has been adopted as the basis of a concept that allows you to distinguish between the quality and quantity of abdominal fluid (Focused Assessment with Sonography in Trauma – targeted sonographic examination in trauma) [6,7]. The amount of free fluid in the abdomen was estimated using a standard method based on determining the degree of detachment of the abdominal layers, a method that involves assessing the volume of fluid (small, medium and large), as well as a holistic assessment of the data obtained from the above two approaches [10].

The FAST verification protocol consists of 4 acoustic window checks, performed in a lying position with the patsient back. These windows are pericardial, hepatic yoni, perisplenic and pelvic cavity (Figure 1). The examination is interpreted as positive if a free liquid is detected in any of the 4 acoustic windows, and negative if no liquid is detected in any area. When one of the windows cannot be seen sufficiently, the examination is considered inaccurate. If the victim's condition is aggravated, an immediate operation was

taken to the operating room and a laparoscopy or laparotomy operation was performed. In extreme cases (Level III shock), the victim was immediately taken to the operating room, taking anti-shock measures, conducting short-scale instrumental examinations, X-rays, toracopunctions, laparocentesis [11].

The FAST method is considered a noninvasive method and can be used in injured patients, pregnant women and even children [15]. In addition, primary and secondary FAST testing can be carried out quickly without moving the patient to the radiology department, with the FAST method allowing the diagnosis to be accelerated [12,14]. The minimum volume of pleural cavity fluid, determined by radiological method, is 150 ml.makes up the. The advantage of UTT over radiology in determining the volume of pleural cavity fluid is that the volume of fluid determined using the UTT method is 5 ml.starts from [19, 20].

Material and methods. This study was carried out at the Samarkand branch of the Scientific Center for emergency medicine of the Republic from 2013 to 2023, treated with closed injuries of the chest and abdominal organs, based on the examination and treatment data of 117 patients.

The median age of patients was 45 years. The injured were allocated to 4 groups according to the classification of the injuries inflicted.

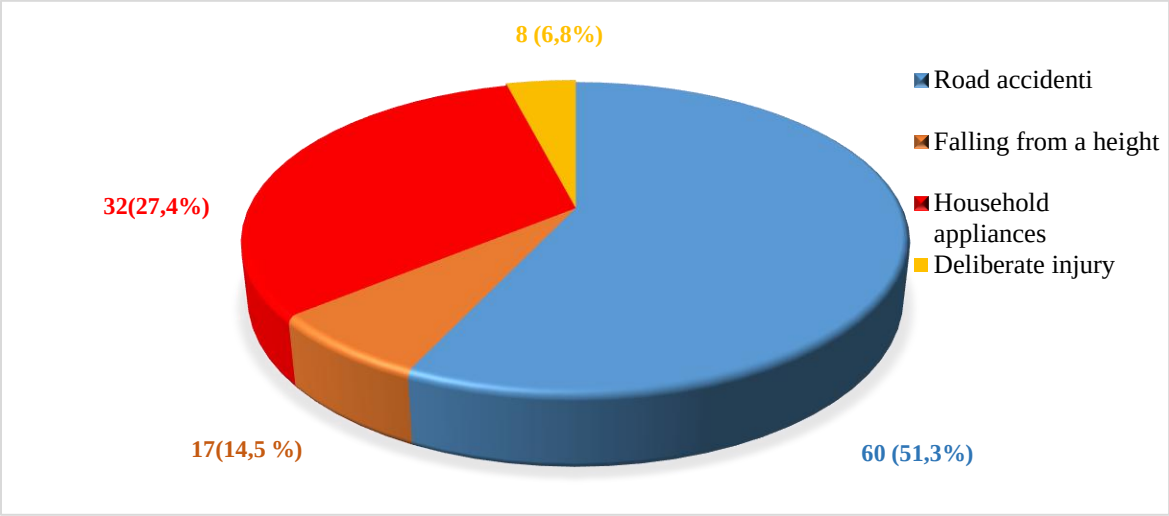

Fig.1. According to the classification of injuries

Standard ultrasound screening was performed at the Rshtyoim Samarkand branch using sono SITE (USA) portable apparatus in Mindray and Mhkg. Linear 2.5-5 Mgs. the sensor was used. The time it took for checks was 3-3.5 minutes. The FAST inspection protocol consists of 4 acoustic window inspections, performed in a lying position with the patsient back, recording whether there is free liquid and air in 8 areas:

I-II. In the upper right quadrant – the hepatorenal sac (Morrison sac) and the right pleural cavity.

III-IV. In the left upper quadrant-the splenorenal sac and the left pleural cavity.

V. The surface area of the bladder is the fluid in the groin cavity, for thinning.

VI. The area of the wedge-shaped tumor of the collarbone to detect fluid in the pericardium.

VI-VII. The upper part of the chest (right and left side) was examined to detect pneumothorax.

VIII. Fluid detection in the right pleural space: to detect right-sided hemothorax, the sensor was placed slightly above (sliding) the Morison sac projection. Examination in the left upper quadrant was applied to detect fluid in the spleen anterior cavity and left pleural cavity.

The sensor was placed between ribs VIII–XI along the rear armpit line. In cases where the shadow from the ribs made it difficult to see, the sensor was rotated on a clock Arrow and placed along the rib rave.

In cases where air in the stomach and intestines made it difficult to see, Vision was relieved using the method of placing the sensor in the area of the back.

During the examination, attention was paid to the detection of fluid in the splenorenal sac. At the same time, attention was paid to the area of the subdiaphragmal cavity (gap of the diaphragm with the spleen), since this area is the space in which fluid accumulates. To do this, the sensor was brought from the position of the splenorenal sac to the appearance of an intercostal curve, and the ultrasound beam was directed to the upper and rear areas, at the same time it was possible to see the left pleural space. Determination of fluid in the left pleural space: to detect left-sided hemothorax, the sensor was laid from the curved position to the front, the ultrasound beam was directed upwards (towards the head), or the sensor was placed slightly above the projection of the splenorenal sac. The image of the reflection of the spleen on the diaphragm in the norm during the examination is manifested as an artifact. In the hemothorax, the artifact is lost and instead an anechogenic cavity formed from blood is visible in the left pleural space.

Material and methods. In 100 patients with closed chest and abdominal injuries, a FAST statement was applied during the one - lamchi examination process. The results of the ultrasonographic examination (US) were compared with intraoperative detected lesions in these patients.

Results. Of the 117 patients examined as a result of our study, 88 (75.2%), FAST positive, 29 (24.8%) fast negative results were recorded. 22 (25%) of our patients with positive FAST results were diagnosed with pneumothorax, 58 (65.9%) with hydrothorax, 6 (6.8%) with hemopericardium, and 17(19.3%) with hemoperitoneum, including 14 (15.9%) patients with joint chest and abdominal injuries. The sensitivity of the FAST statement was 100%, the specificity was 93%, and the accuracy was 96%. The result of the application of the FAST protocol was the complete elimination of cases of exploratory toracotomy and laparotomy in patients with closed chest and abdominal injuries.

Conclusion. The use of FAST protocol in closed chest and abdominal injuries makes it possible to save the time of the primary examination process, to apply proportional surgical tactics for each clinical case.

References

1. Umedov G.A. Kasallik kuyganida bo'g'imlarning o'tkir yiringli yallig'lanishi //Miasto Przyszłości. – 2024. – T. 52. – S. 172-176.
2. Умедов Х. А. Метод хирургического гемостаза при сочетанной травмах паренхиматозных органах брюшной и полости (литературный обзор) //Journal the Coryphaeus of Science. – 2024. – Т. 6. – №. 2. – С. 28-35.
3. Умедов Х. А. Оценка профилактики и эффективности артрита у ожоговых пациентов с использованием низкочастотного лазерного света //Science and innovation. – 2024. – Т. 4. – №. 2. – С. 16-21.
4. Умедов Х. А. Острый гнойные воспаления суставов при ожогах болезни (Обзор литературы) //Boffin Academy. – 2024. – Т. 2. – №. 2. – С. 10-17.
5. Умедов Х. А. и др. Принципы консервативного лечения больных с повреждениями печени и селезенки при закрытой травме живота //Journal the Coryphaeus of Science. – 2024. – Т. 6. – №. 1. – С. 444-445.
6. Alisherovich U.X. Kuyish paytida bo'g'imlarning yiringli yallig'lanishi (adabiyotlarni sharhi) //Research Focus. – 2024. – T. 3. – №. 5. – S. 71-75.

7. Alisherovich X.U. Qorin bo'shlig'ining kombinatsiyalangan shikastlanishi uchun endovideolaparoskopiyaning diagnostika va terapevtik imkoniyatlarini yaxshilash. //Tadqiqot yo'nalishi. – 2024. – Т. 3. – №. 3. – S. 95-99.
8. Alisherovich U. K. Наш опыт консервативного лечения повреждения селезенки при закрытой травме живота //journal of biomedicine and practice. – 2023. – Т. 8. – №. 4.
9. Умедов Х. А., Раджабов Ф. Г. Лечебные возможности лапароскопии при закрытой травме печени //Research Focus International Scientific Journal. – 2023. – Т. 2. – №. 6. – С. 317-321.
10. Умедов Х. А., Муродова Р. Р. Лечение полиорганной недостаточности у больных термической травмой //Research Focus International Scientific Journal. – 2023. – Т. 2. – №. 6. – С. 309-316.
11. Alisherovich U. K. Show the effectiveness of a staged surgical method for severe liver damage //theory and analytical aspects of recent research. – 2023. – Т. 2. – №. 13. – С. 139-148.
12. Alisherovich UK va boshqalar. Jigarning og'ir shikastlanishida ko'p bosqichli jarrohlik taktikalarining samaradorligini baholash // Tadqiqot mavzusi. – 2023. – Т. 2. – №. 1. – S. 312-318.
13. 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.
14. АВАЗОВ А. А. и др. Qo’shma shikastlanishlarda qorin bo'shlig'i a'zolarining og'ir darajadagi shikastlanishlarini diagnostika va davolashda hal etilmagan muammollari //журнал биомедицины и практики. – 2022. – Т. 7. – №. 3.
15. Shakirov B.M, Avazov AA, umedov xa namli orta shartlarida qo'l kuyishini davolashning xususiyatlari //nazariy & amaliy fan Uchrediteli: Teoreticheskaya i prikladnaya nauka. – №. 4. – S. 289-291.
16. Umedov N. B. et al. Опыт лечения повреждений паренхиматозных органов брюшной полости при сочетанной травме.
17. Умедов Х. А. Оценка профилактики и эффективности артрита у ожоговых пациентов с использованием низкочастотного лазерного света //Science and innovation. – 2024. – Т. 4. – №. 2. – С. 16-21.
18. Умедов Х. А. Острый гнойные воспаления суставов при ожогах болезни (Обзор литературы) //Boffin Academy. – 2024. – Т. 2. – №. 2. – С. 10-17.
19. Умедов Х. А. и др. Принципы консервативного лечения больных с повреждениями печени и селезенки при закрытой травме живота //Journal the Coryphaeus of Science. – 2024. – Т. 6. – №. 1. – С. 444-445.
20. Alisherovich U.X. kuyish paytida bo'g'imlarning yiringli yallig'lanishi (adabiyotlarni sharhi) //Research Focus. – 2024. – Т. 3. – №. 5. – S. 71-75.
21. Alisherovich X.U. Qorin bo'shlig'ining kombinatsiyalangan shikastlanishi uchun endovideolaparoskopiyaning diagnostika va terapevtik imkoniyatlarini yaxshilash. //Tadqiqot yo'nalishi. – 2024. – Т. 3. – №. 3. – S. 95-99.
22. Alisherovich U. K. Наш опыт консервативного лечения повреждения селезенки при закрытой травме живота //journal of biomedicine and practice. – 2023. – Т. 8. – №. 4.
23. Умедов Х. А., Раджабов Ф. Г. Лечебные возможности лапароскопии при закрытой травме печени //Research Focus International Scientific Journal. – 2023. – Т. 2. – №. 6. – С. 317-321.

24. Умедов Х. А., Муродова Р. Р. Лечение полиорганной недостаточности у больных термической травмой //Research Focus International Scientific Journal. – 2023. – Т. 2. – №. 6. – С. 309-316.
25. Alisherovich U. K. Show the effectiveness of a staged surgical method for severe liver damage //theory and analytical aspects of recent research. – 2023. – Т. 2. – №. 13. – С. 139-148.
26. Alisherovich UK va boshqalar. Jigarning og'ir shikastlanishida ko'p bosqichli jarrohlik taktikalarining samaradorligini baholash // Tadqiqot mavzusi. – 2023. – Т. 2. – №. 1. – S. 312-318.
27. 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.
28. Умедов Х. А. Острый гнойные воспаления суставов при ожогах болезни (Обзор литературы) //Boffin Academy. – 2024. – Т. 2. – №. 2. – С. 10-17.
29. Умедов Х. А. И др. Принципы консервативного лечения больных с повреждениями печени и селезенки при закрытой травме живота //Journal the Coryphaeus of Science. – 2024. – Т. 6. – №. 1. – С. 444-445.
30. Nalisherovich U.X. Kuyish paytida bo'g'imlarning yiringli yallig'lanishi (adabiyotlarni sharhi) //Research Focus. – 2024. – Т. 3. – №. 5. – S. 71-75.
31. Alisherovich X.U. Qorin bo'shlig'ining kombinatsiyalangan shikastlanishi uchun endovideolaparoskopiyaning diagnostika va terapevtik imkoniyatlarini yaxshilash. //Tadqiqot yo'nalishi. – 2024. – Т. 3. – №. 3. – S. 95-99.
32. Alisherovich U. K. Наш опыт консервативного лечения повреждения селезенки при закрытой травме живота //journal of biomedicine and practice. – 2023. – Т. 8. – №. 4.
33. Умедов Х. А., Раджабов Ф. Г. Лечебные возможности лапароскопии при закрытой травме печени //Research Focus International Scientific Journal. – 2023. – Т. 2. – №. 6. – С. 317-321.
34. Умедов Х. А., Муродова Р. Р. Лечение полиорганной недостаточности у больных термической травмой //Research Focus International Scientific Journal. – 2023. – Т. 2. – №. 6. – С. 309-316.
35. Alisherovich U. K. Show the effectiveness of a staged surgical method for severe liver damage //theory and analytical aspects of recent research. – 2023. – Т. 2. – №. 13. – С. 139-148.
36. Alisherovich UK va boshqalar. Jigarning og'ir shikastlanishida ko'p bosqichli jarrohlik taktikalarining samaradorligini baholash // Tadqiqot mavzusi. – 2023. – Т. 2. – №. 1. – S. 312-318.
37. 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.
38. Alisherovich U. K. Наш опыт консервативного лечения повреждения селезенки при закрытой травме живота //journal of biomedicine and practice. – 2023. – Т. 8. – №. 4