

15. Smith E, Yeasky T, Wei J, Miki R, Cai K, Smedberg J. White spotting variant mouse as an experimental model for ovarian aging and menopausal biology. *Menopause*. 2012; 19:588–596. doi:10.1097/gme.0b013e318239cc53.

Реферати

ПОСТМЕНОПАУЗАЛЬНИЙ ПЕРІОД ЯК ФАКТОР РИЗИКУ РОЗВИТКУ ПУХЛИН ОРГАНІВ РЕПРОДУКТИВНОЇ СИСТЕМИ

Гарашова М.А.

У дослідження було включено ретроспективний аналіз історій хвороби 301 жінки з різними пухлинами органів репродуктивної системи (Середній вік $61,6 \pm 0,4$ року). У проспективне дослідження було включено 306 жінок з доброякісними та злоякісними пухлинами геніталій в постменопаузальному періоді (Середній вік $59,3 \pm 0,4$ року). Всім хворим було проведено ехографію геніталій; вивчено рівні стероїдних гормонів і біохімічні показники крові; визначено показники онкомаркера СА-125. Було встановлено, що у хворих на рак яєчників індекс маси тіла склав $28,7 \pm 0,6$ кг / м², при раку ендометрія $32,7 \pm 1,0$ кг / м², при доброякісних новоутвореннях яєчників ІМТ був в межах $27,3 \pm 2,0$ кг / м², у хворих з гіперпластичними процесами ендометрія $31,9 \pm 0,8$ кг / м². У хворих на рак яєчників і рак ендометрія було виявлено високу частоту штучного переривання вагітності (29,2% і 46,8% відповідно). Таким чином, факторами ризику розвитку неопластичних процесів геніталій в постменопаузальному періоді є: збільшення індексу маси тіла, наявність безпліддя в анамнезі, наявність гінекологічних, ендокринних захворювань в репродуктивному і перименопаузальному періодах, висока частота штучного переривання вагітності в анамнезі.

Ключові слова: постменопауза, рак яєчників, рак ендометрія, гіперпластичні процеси ендометрія, індекс маси тіла.

Стаття надійшла 14.08.2019 р.

ПОСТМЕНОПАУЗАЛЬНИЙ ПЕРІОД КАК ФАКТОР РИСКА РАЗВИТИЯ ОПУХОЛЕЙ ОРГАНОВ РЕПРОДУКТИВНОЙ СИСТЕМЫ

Гарашова М.А.

В исследовании были включены ретроспективный анализ историй болезни 301 женщины с различными опухолями органов репродуктивной системы (Средний возраст $61,6 \pm 0,4$ года). В проспективное исследование были включены 306 женщин с доброкачественными и злокачественными опухолями гениталий в постменопаузальном периоде (Средний возраст $59,3 \pm 0,4$ года). Всем больным была проведена эхография гениталий; изучены уровни стероидных гормонов и биохимические показатели крови; определены показатели онкомаркера СА-125. Было установлено, что у больных с раком яичников индекс массы тела составил $28,7 \pm 0,6$ кг/м², при раке эндометрия $32,7 \pm 1,0$ кг/м², при доброкачественных новообразованиях яичников ИМТ был в пределах $27,3 \pm 2,0$ кг/м², у больных с гиперпластическими процессами эндометрия $31,9 \pm 0,8$ кг/м². У больных с раком яичников и раком эндометрия была выявлена высокая частота искусственного прерывания беременности (29,2% и 46,8% соответственно). Таким образом, факторами риска развития неопластических процессов гениталий в постменопаузальном периоде являются: увеличение индекса массы тела, наличие бесплодия в анамнезе, наличие гинекологических, эндокринных заболеваний в репродуктивном и перименопаузальном периодах, высокая частота искусственного прерывания беременности в анамнезе.

Ключевые слова: постменопаузальный период, рак яичников, рак эндометрия, гиперпластические процессы эндометрия, индекс массы тела.

Рецензент Ліхачов В.К.

DOI 10.26724/2079-8334-2020-3-73-42-46

UDC 616.89: 616.715: 614.88

G.Sh. Gasimzade

Azerbaijan A. Aliyev State Advanced Training Institute for Doctors (ASATID), Baku, Azerbaijan

METHODS OF RADIATION DIAGNOSTICS OF COMPLICATIONS IN COMBINED CRANIOCEREBRAL TRAUMA AND ABDOMINAL TRAUMA

e-mail: nauchnayastatya@yandex.ru

This article is devoted to one of the problems of medical radiation diagnostics of combined trauma. The specifics and features of instrumental monitoring of victims of combined craniocerebral and abdominal trauma were determined. The article presents data from a prospective survey of 142 victims of this type of injury. In some cases, patients with combined craniocerebral and abdominal injuries received x-rays of the abdominal organs. The number of victims surveyed was 42 (29,5%). Due to the difficulty of diagnosis associated with the condition of the victims and for more accurate research in the future, an ultrasound study was conducted for all. Carrying out the method of review radiography of the abdominal organs in victims with combined craniocerebral and abdominal injuries was difficult due to the condition of the patients. In case of combined cranio-abdominal trauma, ultrasound diagnostics and computer tomography examination of the brain and abdominal organs of the victims were performed. The sensitivity, specificity, and accuracy of these research methods were studied and proven, and their inclusion in the diagnostic algorithm was recommended.

Keywords: combined trauma, cranio-abdominal trauma, abdominal trauma, ultrasound, computed tomography,

The work is a fragment of a doctoral dissertation: "Prognostic value of modern methods of radiation diagnostics in severe combined injuries".

Injuries occupy one of the leading places in the structure of causes of death up to 40–45 years. The death rate from accidents and injuries is constantly growing and every year this increase is up to 1%. Despite the fact that only 8-10% of those admitted to hospital treatment are victims of combined trauma, the mortality rate for combined injuries is 70% [10, 12, 14].

Among the victims of injuries, 34% are abdominal injuries, ranking third in the structure of traumatic injuries after musculoskeletal and craniocerebral injuries [11, 13]. Among the combined injuries the most common is craniocerebral and abdominal trauma. A significant portion of abdominal injuries require surgery. Along with this, complications of the abdominal component in combined injuries are 7.8-40.8% [8, 11, 13]. The frequency and nature of abdominal complications vary depending on the duration of the injury. In the first two days, in the acute and initial period of injury, the most common complication is internal bleeding, which occurs in 2–3 cases (5%) [2] and peritonitis with the frequency of 1.3%. In later periods, in the second period of traumatic injury, on days 3–7, the most common complications are infections – 4–12%, intraperitoneal abscesses-2–4. 8%. [4], intestinal obstruction–1.3%. gastrointestinal bleeding-0.5-1%. The third and fourth periods of abdominal injury are characterized by the following injuries: intestinal fistulas –1.5-1.8%. intestinal obstruction –1.5–1.8%. internal abdominal abscesses–1.5% [11, 13]. In addition, the so-called abdominal component syndrome develops and the frequency of its occurrence in combined abdominal injuries is 5–8.2% [4, 10, 13].

Among the combined injuries, craniо–abdominal trauma is characterized by a peculiar pathogenetic complex of symptoms and syndromes. This symptom complex combines the features of both traumatic brain injury and damage to the abdominal cavity of the retroperitoneal space. Along with this, in case of combined craniocerebral and abdominal trauma, new isolated symptom complexes may be formed that are not typical for this type of injury [7, 8, 9].

A characteristic feature of craniо-abdominal trauma is the interrelated complications that occur with this type of damage. In this type of combined injury, the severity of the victim's condition is aggravated by the severity of the pathological condition associated with the traumatic lesion. On the other hand, if we consider separately craniocerebral and abdominal injuries, each of them is characterized by a severe course, various types of complications that aggravate together and separately and are the cause of the severe course of this type of injury. In addition, damage to the nervous system inevitably leads to a violation of the regulatory and coordinating functions of the autonomic nervous system, which in turn significantly reduces the effectiveness of compensatory mechanisms and increases the risk of complications. One of the characteristic features of combined craniocerebral and abdominal trauma is false dislocation syndrome. The severity of this syndrome depends on the severity of damage to the Central nervous system and is very closely related to the volume of hemoperitonium. A feature of combined craniocerebral and abdominal trauma is that when the parenchymal organs of the abdominal cavity are damaged and extensive blood loss occurs, in the amount of 1.5–2 liters or more, severity of the victim's condition and development of complications depend on the timely stabilization of hemodynamic parameters and replenishment of blood loss in the patient. Taking into account the peculiarities of combined craniо–abdominal trauma, it should be noted that their diagnosis and treatment present certain difficulties even in highly specialized hospitals [9, 12].

With combined craniocerebral and abdominal trauma, the severity of the condition and often absent consciousness of the victim lead to the inability to collect anamnestic data, clinical and diagnostic methods of examination are difficult or uninformative, and laboratory studies are not specific [1, 4]. All this makes it difficult to adequately assess the severity of the victim's condition to diagnose complications in time, which negatively affects the volume and timeliness of medical measures and, ultimately, is an unjustified cause of high mortality in this type of combined injury.

Taking into account the above, it is necessary to develop clinical research monitoring and an effective algorithm that allows timely implementation of both diagnostic and full treatment measures.

The purpose of the study was to determine the features and effectiveness of instrumental monitoring and develop a diagnostic algorithm for victims with combined traumatic brain and abdominal injuries.

Materials and methods. A prospective examination of 142 patients with combined craniocerebral and abdominal injuries who were admitted to the Clinical Medical Center of Baku was conducted. The criteria for selecting victims in the study group were as follows:

- the presence of combined craniocerebral and abdominal injuries.
- possibility of conducting an instrumental survey.
- no fatality of the victim within 24 hours.

In cases of combined craniocerebral and abdominal injuries, instrumental monitoring of the abdominal component was performed by diagnosing abdominal injuries using ultrasound and computed tomography (CT) examinations. Ultrasound was performed on a Toshiba X cario SSA–660A device (Toshiba, Japan) with a convex sensor – 3.75 Hs, a mechanical sector sensor – 2-5Hs in B–mode, as well as a portable ultrasound device Toshiba Nemio XG SSA–580A (Toshiba, Japan) with a linear sensor 3.5-

5.0 Hs. Computed tomography was performed on a Toshiba Aquilion 16 TSK-101 (Toshiba Corporation, Japan). The severity of mechanical damage in combined trauma was determined by the scale (AIS Abbreviated Injury Scale); the severity of the injury was determined by the ISS scale (Injury Severity Score); the level of consciousness of the victim was determined by the Qlazgo coma scale. In combined trauma, severe damage to the craniocerebral or abdominal components was determined on the AIS scale ≥ 3 ; if the injuries were not severe, they were evaluated on the AIS scale as AIS3.

The results of the study were subjected to statistical processing using the Microsoft Office (Excel) Statistika 6.0 package. the planning Standard was checked and the student's criterion (+) was calculated. The sensitivity, specificity, and accuracy of the study were calculated using generally accepted formulas.

Results of the study and their discussion. Of the total number of examined 142 people who received a combined traumatic brain and abdominal injury, the number of victims was 93 men (65.4%), the number of women was 49 (34.6%), respectively. The average age of the victims was 40.3 ± 2.0 years. The ISS score was 32.4 ± 12.7 points. When providing assistance to victims with combined craniocerebral and abdominal injuries, it is mandatory to conduct diagnostic studies and provide medical measures. And in general, when the victim is in a serious condition, diagnostic tests are carried out simultaneously with resuscitation measures.

In some cases, patients with combined craniocerebral and abdominal injuries received x-rays of the abdominal organs. The number of victims surveyed was 42 (29.5%). Due to the difficulty of diagnosis associated with the condition of the victims and for more accurate research in the future, an ultrasound study was conducted for all. Carrying out the method of review radiography of the abdominal organs in victims with combined craniocerebral and abdominal injuries was difficult due to the condition of the patients. The presence of pain and motor arousal of the victims made it difficult to perform diagnostic measures. It was not possible to conduct research in an upright position due to the severity of the victims' condition. Only 18 (42.8%) patients had abdominal x-rays that revealed injuries to internal organs and the presence of intra-abdominal bleeding. In other cases, the survey radiography did not allow to diagnose damage to the abdominal organs. To avoid diagnostic errors, as well as deterioration of the condition of victims with combined craniocerebral and abdominal trauma in the future, all 42 patients underwent ultrasound examination.

Thus, in the case of combined craniocerebral and abdominal trauma, the diagnosis of injuries to the abdominal organs during a review x-ray examination, the accuracy of diagnosis and information content was 43%.

All victims were required to have an ultrasound of the abdominal cavity and pleural sinuses, in addition to a CT scan of the brain. After admission to the hospital of the victim with a combined injury, an ultrasound study was conducted for 20 minutes. During the initial ultrasound examination of the abdominal cavity, no signs of internal bleeding were detected or these symptoms were doubtful. Taking this into account, during the first day, patients were dynamically monitored every 2-3 hours. Then, until the symptoms of damage to the abdominal organs were excluded, ultrasound was repeated 2-3 times a day. With extensive soft tissue emphysema, the use of ultrasound is limited. After 20 hours repeated ultrasound examination allowed to determine the presence of free fluid in the abdominal cavity. Ultrasound examination of 113 (79.5%) victims allowed making a correct diagnosis. Abdominal injuries and internal bleeding were correctly diagnosed in 61 (42.9%) victims with combined craniocerebral and abdominal injuries. In some cases ultrasound to diagnose abdominal injuries was difficult or even impossible. This was observed in 42 (29.5%) injured patients. Of these subcutaneous emphysema was found in 12 (8.9%) cases, intestinal paresis was found in 7 (4.9%) patients, restless behavior of the victim or urgent and urgent resuscitation was found in 8 (5.6%) cases, abdominal adhesions were detected in 2 (1.4%) patients.

In combined craniocerebral and abdominal injuries, ultrasound diagnostics of abdominal injuries was 77.3% sensitivity, 100% specificity, and 88.2% accuracy of diagnosis, respectively.

CT scans of the abdominal cavity and retroperitoneal space were performed in 32 (22.5%) injured patients. CT examination revealed liver rupture in 9 (28.1%) and intra-organ spleen hematoma in 4 (12.5%) patients. In 3 (9.3%) of the victims, a retroperitoneal hematoma was detected on CT. Diagnostic mistakes and errors were not detected during the CT study. The use of this diagnostic method of research allowed not only to detect the presence of free fluid in the abdominal cavity and hemoperitoneum, but also in all cases of examination, the topical diagnosis was correctly made. This research method is characterized by 100% sensitivity, specificity and accuracy in the diagnosis of patients with combined traumatic brain and abdominal trauma. But the use of CT diagnostics has certain difficulties. When performing CT, it is necessary to transport the victim from the intensive care unit to a specially equipped room and this transportation in turn is fraught with the risk of deterioration of the victim's condition.

Until recently, the diagnosis of craniocerebral disorders was considered a difficult task in cases of combined cranio-abdominal trauma and severe damage to the abdominal organs. Severe, having a significant impact on the outcome of combined neurotrauma is damage to the abdominal organs and the presence of internal bleeding, which is characterized by a high frequency of life-threatening complications and dependence on accuracy correct timely diagnosis and surgical treatment. In case of combined craniocerebral and abdominal trauma. CT examination is necessary for timely diagnosis of both abdominal injuries and thoracic trauma. The presence of intraperitoneal bleeding and the resulting hypoxia causes rapid development of brain edema. dislocation. and as a result. the victim's serious condition worsens even more. In addition. numerous fractures of the ribs and limbs are complicated by hemiparesis. which is a characteristic complication in internal hematoma or severe damage in traumatic brain injury. CT examination of the brain was performed in 38 (26.7%) victims with severe traumatic brain injury. In all cases the diagnostic study carried out in the end allowed us to correctly assess the severity of the lesion and. accordingly. choose and implement therapeutic measures. Taking into account the above, we can state with confidence that the sensitivity. Specificity, and accuracy of diagnosis in CT examination was 100%.

Thus, combined craniocerebral and abdominal trauma is characterized by a severe course and complex diagnostic features. As shown in our study, in the presence of combined craniocerebral and abdominal traumas, the patient's condition and the damage outcome in the first 3-4 days are determined mainly by the severity of damage to the abdominal organs, the degree of bleeding as well as the timeliness adequate diagnostic and therapeutic measures. At a later date, 6-10 days, the severity of the victim's condition is determined by brain damage and its complications. The use of instrumental examination methods is an important stage in the diagnosis of abdominal and brain injuries in combined cranio-abdominal trauma. In case of combined trauma. all victims in a restless state should immediately undergo an ultrasound examination upon admission to detect signs of internal bleeding or damage to the abdominal organs. If there are none, this diagnostic test should be repeated every 4 hours during the day.

The data of our study coincide with the indices by A. A. Konanenko and co-authors [2, 5]. In their studies, as well as in our own, it is stated that in the case of combined craniocerebral and abdominal trauma, ultrasound diagnostics is an important and exceptional method for detecting damage to the abdominal cavity. On the other hand, with extensive soft tissue emphysema, the diagnostic capabilities of this method are limited.

It should be noted that combined traumatic brain injury is characterized by a high rate of complications and mortality, which ranges from 25 to 65%. The complexity of diagnosis in this type of combined trauma is determined by severity of the victim's condition, lack of consciousness. as well as various types of damage to parenchymal and hollow organs and systems [3,10,14]. Against the background of the patient's severe condition, traumatic shock, severe craniocerebral damage in combined trauma, damage to the abdominal cavity or retroperitoneal space generally remains undiagnosed.

Many hospitals and emergency departments have their own specific criteria for providing medical care to victims with combined cranio-abdominal trauma, which in turn negates diagnostic measures [6]. Based on the performed studies and the results obtained, we propose to use the following algorithm of diagnostic methods in patients with combined craniocerebral and abdominal trauma. The diagnostic algorithm should include both ultrasound examination and CT examination for the first 20-30 minutes of admission of the victim to the hospital, if there are no indications for surgical intervention, the results of diagnostic research methods should be repeated in the next 2-6 hours.

In the presence and confirmation of damage to the abdominal organs and intra-abdominal bleeding, immediate surgical intervention is necessary.

During early hospitalization (in the first hours after the injury), there are often no obvious clinical signs of intraabdominal injuries. Abdominal trauma in these patients can be suspected due to the presence of unstable hemodynamics in the absence of signs of external bleeding. However, interpretation of these data is difficult for victims with impaired consciousness as a result of severe traumatic brain injury.

Thus. combined craniocerebral and abdominal trauma is characterized by the severity of diagnosis and timely diagnosis. Timely diagnosis of abdominal injuries and assessment of intra-abdominal bleeding depends on the adequacy of instrumental methods of examination conducted by the victim.

Thus, in the case of combined craniocerebral and abdominal trauma in order to detect internal bleeding and damage to the abdominal organs, the ultrasound diagnostic method is characterized by 100% specificity, 77.3% sensitivity, and 88.2% accuracy. CT examination is determined by specificity, sensitivity and accuracy up to 100%.

Conclusion

Currently, in this type of combined injury, ultrasound and CT should be included in the methods of investigation of injuries to the abdominal cavity and brain for early, timely diagnosis, as well as for the prevention of various types of complications.

References

1. Abakumov MM, Sharifullin FA, Barmina TG, Zabavskaja OA, Smoljar AN, Bashlykov VV. Spiralnaya kompjuternaya tomografiya v diagnostike i lechenii postradavshih s travmaticheskimi zabrjushinnymi krovoizliyaniyami. *Khirurgiya*. 2011; 8:19-23. [in Russian]
2. Bognitskaja TV, Trofimova EJu, Smoljar AN. Vozmozhnosti ultrazvukovoy diagnostiki zabrjushinnykh krovoizliyanij v rannije sroki posle zakrytoy travmy zhivota. *Nevskiy radiologicheskij Forum. Sbornik nauchnyh tr. pod. red. LA Tjutina. SPb.*2011: 27. [in Russian]
3. Glanc St. Mediko-biologicheskaja statistika. Buzikashvili NE i Samojlova DV, redaktory. Moskva: Praktika, 1999: 200 s. [in Russian]
4. Yermolaeva NK, Maskin SS, Shvarcman IM, Bosko OJu, Aleksandrov VV, Tadzhiyeva AR, Lopasteyskiy DS. Ultrazvukovaya diagnostika zakrytykh povrezhdenij organov brjushnoy polosti i zabryushinnogo prostranstva. *Vestnik Volg. GMU*, 2013; 1 (45):54-57. [in Russian]
5. Dzhakanov MK, Kononenko AF, Akataev NA, Tayshibaev KR. Trudnosti diagnostiki i lechenija sochetannoj travmy golovy i zhivota. *Meditsinskiy zhurnal Zapadnogo Kazahstana*. 2014; 2 (42): 26-29. [in Russian]
6. Kutovoy AB, Chayka VA, Rodinskaya GA. Modifitsirovanniy algoritm diagnostiki i lecheniya postradavshikh s dominiruyushchey sochetannoy kraniobdominalnoy travmoy. *Kharkivska Khirurhichna Shkola*. 2015; 4(73): 112-116. [in Russian]
7. Ma ODzh, Matijer DzhR. Ultrazvukovoe issledovanie v neotlozhnoy meditsine. Moskva: BINOM, Laboratoriya znaniy. 2014:90-120. [in Russian]
8. Malkov IS, Filippov VA, Korobkov VN, Khalilov KHM, Tagirov MR, Gabitov IM. Diagnosticheskiye aspekty zakrytykh povrezhdenij zhivota. *Kazanskiy meditsinskiy zhurnal*. 2016; 6: 892-897, DOI: 10,17750/KMJ2016-892. [in Russian]
9. Fajzulina RR, Nuzova OB, Bobyleva EO. Optimizatsiya diagnostiki tupoy travmy zhivota, The Journal of scientific articles "Health and Education Millennium". 2017; 19 (5): 9-11. [in Russian]
10. American College of Surgeons Committee on Trauma, Advanced Trauma Life Support (ATLS) Student Course Manual, 9th ed, American College of Surgeons, Chicago 2012.
11. Cheynel N, Gentil J, Freitz M, Rat P, Deballon PO, Kopp CB Abdominal and pelvic injuries caused by road traffic accidents, *World J Surgery*, 2011; 35 (7) :1621-1625,
12. Global Status on Road Safety 2015, World Health Organization, http://www.who.int/violence_injury_prevention/road_safety_status/2015/ (Accessed on April 04, 2016),
13. Perel P, Prieto-Merino D, Shakur H, Clayton T, Lecky F, Bouamra O, et all Predicting early death in patients with traumatic bleeding: development and validation of prognostic model, *BMJ*, 2012; 345: 5166.
14. World Health Organization, Global burden of disease, www.who.int/healthinfo/global_burden_disease/en/ (Accessed on May 01, 2010).

Реферати

**МЕТОДИ ПРОМЕНЕВОЇ ДІАГНОСТИКИ
УСКЛАДНЕНЬ ПОЄДНАНОЇ ЧЕРЕПНО-
МОЗКОВОЇ І АБДОМІНАЛЬНОЇ ТРАВМИ
Гасимзаде Г.Ш.**

Дану статтю присвячено одній з проблем охорони здоров'я - променевої діагностиці поєднаної травми. Визначено специфіку і особливості інструментального моніторингу постраждалих від поєднаної черепно-мозкової і абдомінальної травм. У статті представлено дані проспективного обстеження 142 постраждалих даним видом травми. Постраждалим з поєднаною черепно-мозковою та абдомінальною травмою в ряді випадків проводилась рентгенографія органів черевної порожнини. Кількість обстежуваних потерпілих складало 42 (29,5%) особи. У зв'язку з ускладненням діагностики, пов'язаним зі станом потерпілих і для більшої точності дослідження в подальшому всім було проведено УЗ дослідження. Проведення методу оглядової рентгенографії органів черевної порожнини у потерпілих з поєднаною черепно-мозковою та абдомінальною травмою було утруднене у зв'язку зі станом хворих. За поєднаної краніо-абдомінальної травми проведено ультразвукову діагностику і комп'ютерно-томографічне дослідження головного мозку і органів черевної порожнини постраждалим. Було вивчено і доведено чутливість, специфічність і точність цих методик досліджень та рекомендовано включення їх в алгоритм діагностики.

Ключові слова: поєднана травма, черепно-мозкова, абдомінальна травма, ультразвукове дослідження, комп'ютерно-томографічна діагностика.

Стаття надійшла 12.08.2019 р.

**МЕТОДИ ЛУЧЕВОЇ ДІАГНОСТИКИ
ОСЛОЖНЕНИЙ СОЧЕТАННОЇ ЧЕРЕПНО-
МОЗГОВОЇ І АБДОМІНАЛЬНОЇ ТРАВМИ
Гасимзаде Г.Ш.**

Данная статья посвящена одной из проблем здравоохранения - лучевой диагностике сочетанной травмы. Определены специфика и особенность инструментального мониторинга пострадавших от сочетанной черепно-мозговой и абдоминальной травм. В статье представлены данные проспективного обследования 142 пострадавших данным видом травмы, Пострадавшим с сочетанной черепно-мозговой и абдоминальной травмой в ряде случаев проводилась рентгенография органов брюшной полости. Количество обследуемых потерпевших составило 42 (29,5%) человек. В связи с затруднением диагностики, связанное с состоянием потерпевших и для более точности исследования в дальнейшем всем было проведено УЗ исследование. Проведение метода обзорной рентгенографии органов брюшной полости у потерпевших с сочетанной черепно-мозговой и абдоминальной травмой было затруднено в связи с состоянием больных. При сочетанной краніо-абдоминальной травме проведена ультразвуковая диагностика и компьютерно-томографическое исследование головного мозга и органов брюшной полости пострадавшим. Были изучены и доказаны чувствительность, специфичность и точность этих методик исследований и рекомендовано включение их в алгоритм диагностики.

Ключевые слова: сочетанная травма, черепно-мозговая, абдоминальная травма, ультразвуковое исследование, компьютерно-томографическая диагностика.

Рецензент Пелипенко О.В.