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HISTORICAL MILESTONES IN THE STUDY OF TRAUMA AT THE ST. PETERSBURG RESEARCH INSTITUTE NAMED AFTER I.I. DZHANELIDZE

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annotation

Introduction: The study of the medical aspects of injury, its diagnosis and treatment is one of the main topics of scientific research by the team of the St. Petersburg Research Institute of Emergency Medicine named after. I.I.Dzhanelidze for many decades.

Purpose of the study: The purpose of the study was to assess the historical aspects of the development of the problem of trauma in Russia and the role of the St. Petersburg Research Institute of Emergency Medicine named after. I.I. Janelidze in studying these issues.

Material and methods: Historical-analytical, normative legal, and statistical methods were used.

Conclusion: Today, without exaggeration, we can say that the foundations of the modern system of providing medical care in Russia for combined and multiple trauma accompanied by shock were laid and tested in our institute. The essence of this concept is to organize the provision of medical care to the wounded and victims with polytrauma in the system of trauma centers. At the same time, we worked and continue to work in close contact with the staff of the department and clinic of military field surgery of the Military Medical Academy named after. CM. Kirov.

KEYWORDS:trauma, St. Petersburg Research Institute of Emergency Medicine named after I.I. Dzhanelidze

HOW TO QUOTE: Parfenov V.E., Barsukova I.M. Historical milestones in the study of trauma at the St. Petersburg Research Institute named after. I.I. Dzhanelidze. Journal "Emergency Surgery named after. I.I. Dzhanelidze". 2021;2(3):6-10

PRINCIPLES OF DIAGNOSIS AND TREATMENT OF SEVERE COMBINED TRAUMA (LECTURE)

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Introduction: The basis of the modern concept of providing medical care for severe combined trauma is the need to examine and treat patients of this category in trauma centers with round-the-clock availability of modern, including high-tech treatment and diagnostic methods (radiation, instrumental, endoscopic, endovideosurgical, x-ray endovascular, traumatological). The use of the basic principles of management of patients with polytrauma in St. Petersburg, highlighted in the lecture, has made it possible over the past 7 years to reduce mortality in this pathology from 17 to 12.

Purpose of the lecture:determining the basic principles of providing medical care to victims with severe combined trauma and assessing the effectiveness of their use in the conditions of St. Petersburg.

KEYWORDS:severe combined injury, polytrauma, traumatic shock, traumatic pain

HOW TO QUOTE: Tulupov A.N., Manukovsky V.A., Samokhvalov I.M., Kazhanov I.V., Gavrishchuk Ya.V. Principles of diagnosis and treatment of severe combined injury. Journal "Emergency Surgery named after. I.I. Dzhanelidze". 2021; 2 (3): 11-28

DIAGNOSTICS, CLINICAL MANIFESTATIONS, HOMEOSTASIS DISORDERS IN SHOCOGENIC DAMAGES IN THE ACUTE PERIOD OF TRAUMATIC DISEASE

Authors

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Introduction: Based on the domestic concept of periodization of a traumatic disease, the stages of its acute period were identified, both with a favorable outcome and with “irreversible” shock. The dynamics of the clinical course and changes in laboratory parameters reflecting the severity of homeostasis disorders in victims with a favorable and unfavorable prognosis are described. The article presents information about changes in significant parameters of homeostasis during the period of acute response to injury and identifies a group of signs, changes in which can be used to predict outcomes.

Purpose of the study: Summarize data on diagnosis, clinical manifestations, homeostasis disorders in shockogenic injuries in the acute period of a traumatic illness. Material and methods. Materials from literary sources, content analysis and analytical methods were used.

Keywords:hospital stage, shockogenic injury, traumatic disease, acute period, homeostasis disorders, outcome prediction

HOW TO QUOTE: Lapshin V.N., Afonchikov V.S., Kotlyarsky A.F., Razumova N.K., Strakhov I.V., Gritsai A.N. Diagnosis, clinical manifestations, homeostasis disorders in shockogenic injuries in the acute period of traumatic illness. Journal "Emergency Surgery named after. I.I. Dzhanelidze". 2021;2 (3):29-36

THE ROLE OF OBJECTIVE ASSESSMENT OF THE SEVERITY OF THE CONDITION OF THE VICTIMS AND “DAMAGE CONTROL” IN THE COMPLEX OF MEASURES TO REDUCE INFECTIOUS COMPLICATIONS IN POLYTRAUMA

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Introduction: The article presents definitions of the strategy and tactics of the treatment process in relation to patients with severe mechanical injury. Objective criteria for assessing the severity of the victim’s condition and injury are identified. The place of the concept of “Damage control” in the treatment of patients with severe mechanical trauma, based on scales for assessing the severity of injuries and the condition of the victim (JSS, RTS, TRJSS, APACHJ, etc.), is determined.

Purpose of the study:to determine possible ways to prevent the development of purulent-septic complications in severe mechanical trauma by including objective criteria for assessing the condition of victims in the process of providing assistance.

Research objectives:1. Identify objective criteria that influence the occurrence of complications. 2. To establish subjective factors leading to errors in the provision of medical care. 3. Determine the place of “Damage control” in the process of treating victims 4. Clarify the possibility of influencing the prognosis of the outcome of a traumatic illness on the prevention of septic complications.

Materials and research methods: An analysis of the treatment of patients with severe mechanical trauma for the period 2014-2018 was carried out. The positive and negative aspects of the existing algorithms for providing assistance to this category of victims are highlighted.

KEYWORDS:strategy and tactics of the treatment process, damage control, severe mechanical injury, polytrauma

HOW TO QUOTE: Kondratyev I.P., Shlyapnikov S.A., Linnik S.A., Kucheev I.O. The role of an objective assessment of the severity of the condition of victims and “damage control” in a set of measures to reduce infectious complications in polytrauma. Journal "Emergency Surgery named after. I.I. Dzhanelidze". 2021;2(3):37-41

INTERHOSPITAL MEDICAL EVACUATION OF PATIENTS WITH SEVERE INJURY: FIVE YEARS OF EXPERIENCE IN THE EMERGENCY DEPARTMENT 442 MILITARY CLINICAL HOSPITAL

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Introduction: Up to 90% of victims with severe trauma are initially hospitalized in level II and III trauma centers and require further evacuation to level I trauma centers. To solve this problem, the first emergency medical department in the Armed Forces with an aeromedical team was created at the 442 Military Clinical Hospital. Five-year results of medical evacuations of victims with severe trauma allow us to consider the department's work effective

Purpose of the study:summarize five years of experience in the emergency medical department of the 442 Military Clinical Hospital and justify the feasibility of creating such departments in other district and naval military clinical hospitals.

Materials and methods: Five years of experience (2016 – 2021) of the emergency medical department of the 442 Military Clinical Hospital in the organization and implementation of medical, including air ambulance, evacuation of 232 patients with severe trauma was analyzed.

Conclusion: It is advisable to use the positive five-year experience of the emergency medical department of the 442 Military Clinical Hospital, including developed prognostic criteria and an algorithm for justifying surgical and evacuation tactics in patients with polytrauma, in the work of district and naval military clinical hospitals

Keywords:severe combined trauma, polytrauma, traumatic shock, traumatic disease, medical evacuation, sanitary aviation evacuation, interhospital transportation, emergency medical care

HOW TO QUOTE: Kovalenko S.A., Kasimov R.R., Khaustov M.V., Barsukova I.M., Makhnovsky A.I. Medical evacuation of patients with severe trauma: five years of experience in the emergency department of the 442 Military Clinical Hospital. Journal "Emergency Surgery named after. I.I. Dzhanelidze". 2021; 2(3):42-47

Rib VALVE IN SEVERE COMBINED CLOSED CHEST INJURY: WHEN AND HOW TO FIX

Authors

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Introduction: Chest injuries during polytrauma are diagnosed in more than 60% of victims, and 28.6 of them have severe (dominant and competing) injuries. The mortality rate for this pathology reaches 50%. One of the most severe forms of closed chest injury is multiple and floating rib fractures, the incidence of which reaches 20 of all chest injuries, and the mortality rate is 10-46 [1, 2]. This indicates the great relevance of the topic of this article.

Purpose of the study:determination of indications for fixation of the rib valve and development of the optimal technique for its implementation in severe combined closed chest trauma.

Material and methods: The results of examination and treatment of 32 patients with a rib valve with severe combined closed chest injury were studied at the St. Petersburg Research Institute of Emergency Medicine named after. I.I. Dzhanelidze (level I trauma center) for the period from 2000 to 2020.

Conclusion: Treatment of multiple unstable rib fractures with rib valve represents one of the central problems in breast injury surgery.

KEYWORDS: polytrauma, chest injury, multiple rib fractures, rib valve

HOW TO QUOTE: Tulupov A.N., Manukovsky V.A., Besaev G.M., Kazhanov I.V., Gavrishchuk Ya.V., Nikitin A.V. Costal valve in severe combined closed chest injury: when and how to fix it. Journal "Emergency Surgery named after. I.I. Dzhanelidze". 2021; 2(3):48-54

TREATMENT OF TRAUMATIC SKIN DETACHMENT

Authors

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Introduction:A large number of diagnostic errors and the lack of a unified treatment strategy for traumatic detachment of the skin of the trunk and extremities remains an urgent problem in injury surgery.

Purpose of the study: Improving treatment outcomes for patients with polytrauma through early diagnosis and active surgical treatment of extensive traumatic skin detachment.

Material and methods: The results of treatment of 105 victims with traumatic detachment of the skin of the torso and limbs, who were treated at the St. Petersburg Research Institute of Emergency Medicine named after. I.I. Dzhanelidze and the Military Field Surgery Clinic of the Military Medical Academy named after. CM. Kirov in the period from 2013 to 2020. Results. Traumatic skin detachment in the area of the lower extremities occurred in 84 (80%), in combination with the pelvis – in 12 (11.4%), in the upper extremities – in 9 (8.6%) victims; limited skin detachment occurred in 58 (55.2%), extensive (more than 200 cm2) - in 47 (44.8%); circular skin detachment was detected in 43 (40.9%) victims. In 9 out of 47 victims with extensive skin detachment of the lower extremities, necrosis of the skin flap developed: in 5 cases the cause was primary surgical treatment without autodermoplasty according to Krasovitov, in 4 cases it was late diagnosis.

conclusions: Active surgical treatment of traumatic skin detachment, according to the proposed algorithm, can be recommended for use in victims with associated trauma.

KEYWORDS:combined trauma, traumatic skin detachment, extensive skin damage.

HOW TO QUOTE: Gavrishchuk Ya.V., Manukovsky V.A., Mikityuk S.I., Tulupov A.N., Demko A.E., Kazhanov I.V. Treatment of traumatic skin detachment. Journal "Emergency Surgery named after. I.I. Dzhanelidze". 2021; 2(3); 55-60

MODERN VIEW ON PATHOLOGICAL PHYSIOLOGY OF THE GASTROINTESTINAL TRACT IN VICTIMS WITH SEVERE COMBINED TRAUMA (LITERATURE REVIEW)

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Introduction: The article presents a literature review that reveals modern ideas about gastrointestinal disorders in patients with severe concomitant trauma.

Purpose of the study:outline modern ideas on gastrointestinal disorders in patients with severe concomitant trauma.

Materials and research methods:A content analysis of the available modern world and domestic literature on the research topic was carried out.

Conclusion: Thus, the analysis of scientific data on the pathological physiology of the gastrointestinal tract in patients with severe combined shockogenic trauma revealed the exceptional medical and social significance of the problem, showed that a search for concepts, methodologies, and directions for innovative development is currently underway, and has actualized the need to study the mechanisms of development of gastrointestinal dysfunctions. -intestinal tract in this category of patients, their consequences and methods of correction in order to save the life and health of victims.

KEYWORDS:trauma, combined trauma, traumatic shock, gastrointestinal disorders.

HOW TO QUOTE: Saadulaev D.Sh., Dubikaitis P.A., Barsukova I.M., Makhnovsky A.I. Modern view on the pathological physiology of the gastrointestinal tract in victims with severe combined trauma (literature review). Journal "Emergency Surgery named after. I.I. Dzhanelidze". 2021;2(3):61-69

DIFFERENTIATED APPROACH TO SURGICAL TREATMENT OF COOKING-RELATED BURNS

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Introduction: One of the causes of burns at home is neglect of safety rules during cooking. In women, these injuries are most often associated with clothing igniting from a gas stove; in men, they are a consequence of safety violations when using barbecues.

Purpose of the study:substantiation of the feasibility of a differentiated approach to surgical treatment of patients with flame burns, including those received during cooking.

Materials and methods: In accordance with the circumstances of the injury, the victims were divided into two groups: ignition of clothing from a stove (n=55) and use of flammable liquids when lighting a barbecue (n=26). Data processing was performed in Microsoft Office Excel 2007 and IBM SPSS 20.0 using descriptive and nonparametric statistics. According to the study results, patients in the study groups differed significantly from each other in gender, age, area of deep burn and severity of condition.

Conclusion:A unified approach to surgical treatment of such victims does not always achieve optimal results. To develop differentiated surgical tactics, it is necessary to identify groups of patients that are as homogeneous as possible in terms of a number of analyzed parameters. As a grouping factor for the formation of such patient models, one can use not only the generally accepted division by the damaging agent, but also the circumstances of the burns.

KEYWORDS: burn, burn injury, skin grafting, household injuries, patient model

HOW TO QUOTE: Vagner D.O., Zinoviev E.V., Arustamyan M.R. Differentiated approach to surgical treatment of burns associated with cooking. Journal "Emergency Surgery named after. I.I. Dzhanelidze". 2021;2(3):70-74

STRUCTURE OF DAMAGE IN PATIENTS WITH SEVERE OCCUPATIONAL INJURY

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Introduction: The problem of industrial injuries in the Russian Federation continues to remain relevant. At the same time, the scientific literature does not sufficiently cover the issues of clinical epidemiology of industrial injuries.

Purpose of the study: To study the structure of damage in patients with severe work injury.

Material and methods: Over a five-year period (2016 – 2020) in the operating room for anti-shock measures at the State Budgetary Institution of St. Petersburg Research Institute of Emergency Medicine named after. I.I. Dzhanelidze received 90 patients with severe work injuries. The structure of severe industrial injuries has been studied by causes, location and severity of injuries. The causes and localization of damage were coded in accordance with the ICD-10 classification and the classification of anatomical regions generally accepted in the Russian Federation (Sokolov V.A., 2006). The severity of injuries was determined using the AIS and ISS scales; the severity of the condition at admission was determined using the RTS scale.

conclusions: The results of the study are advisable to use in organizing the provision of first aid and emergency medical care to patients with severe work injury.

KEYWORDS: industrial accidents, severe trauma, polytrauma, shock

HOW TO QUOTE: Makhnovsky A.I., Gavrishchuk Ya.V., Barsukova I.M., Ergashev O.N., Dubikaitis P.A., Bumay A.O. Structure of damage in patients with severe work injury. Journal "Emergency Surgery named after. I.I. Dzhanelidze". 2021; 3:75-78