



PECULIARITIES OF PEDIATRIC TRAUMATISM. ORGANIZATION OF TRAUMATOLOGICAL CARE FOR CHILDREN IN SAMARKAND REGION

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Article history:	Abstract:
Received: 6 th February 2023 Accepted: 6 th March 2023 Published: 10 th March 2023	Traumatic injuries occupy a special place in the disease structure of children. First of all, they are one of the main causes of lethal outcomes. On the other hand, the damage to the growing and developing body often leads to severe consequences, requiring long-term treatment and rehabilitation, and some children are still people with disabilities.
Keywords: child injuries, Samarkand region, children, emergency care	

INTRODUCTION. Pediatric traumatism has its own characteristic features, among which we should mention a high level of craniocerebral injuries (up to 40% among inpatients), "green branch" or "willow twig" fractures and bone fractures, sub-bone fractures, epiphysiolysis and osteoepiphysiolysis, etc. Birth injuries are characterized by even greater peculiarity. There is a definite seasonality among the causes of injuries in children. For example, in summer there are more patients due to falls from swings, road injuries; in fall there are more burns; in spring - falls from great heights (trees, house windows, unfinished buildings); in winter there are more injuries on slides. In recent years, there has been an increase in the number of injured children during school vacations, especially in the summer. The latter is connected with socio-economic changes in the country, which has led to an increase in the number of unorganized children.

The clinical picture of injuries in children is largely determined by their age. For example, craniocerebral injuries of mild to moderate severity in the early and preschool age often proceed with hardly noticeable general cerebral neurological symptoms, and therefore are not always detected by general practitioners. On the other hand, the child's reaction to blood loss in soft tissue wounds, large bone fractures, injuries of parenchymatous organs, etc. is characterized by its severity and rapid onset of decompensation of functions. In treating children with traumatic injuries, the methods and techniques that are successfully used in adult practice are not always acceptable and optimal. Therefore, one of the most important points is the issue of organizing the admission and hospitalization of injured children, especially with severe trauma.

It is known that the immediate and long-term results of treatment in groups of children immediately admitted to specialized trauma centers are better than in patients initially admitted to other medical institutions (adult hospitals, non-specialized children's hospitals) and subsequently transferred to pediatric trauma centers. Here, it is often necessary not so much to continue earlier treatment as to correct errors made at the previous stage.

PURPOSE OF THE STUDY: To study the peculiarities of pediatric traumatism. Organization of traumatological care for children in Samarkand region

MATERIALS AND METHODS OF RESEARCH: There is a specialized pediatric traumatological complex in the Children's Surgical Hospital No.1 of Samarkand region. It includes the following subdivisions:

1. Traumatological station, working daily and round-the-clock, where outpatient care is provided. Primary and follow-up appointments are separated, which avoids large queues and long waiting times. In winter, our clinic sees 35-40 patients a day at the first visit, while in summer, the flow of patients doubles, sometimes reaching up to 100 visits a day.
2. the Department of Traumatology and Orthopedics. Children with injuries of musculoskeletal system are hospitalized here and taken to the admission and diagnosis department by an ambulance team. If inpatient treatment is necessary, patients from the trauma unit are also referred here.
3. Neurosurgical department, where children with all types of neurotrauma are treated.
4. general surgery department, where patients with injuries of internal organs and patients requiring hospital treatment of infected contaminated wounds of various localizations are hospitalized.
5. Urology Department. Evaluation and treatment of patients with injuries of urogenital organs are performed here.
6. Otorhinolaryngological Department, where patients of corresponding profile are treated.

7. Department of Recuperative Treatment. Children after a long in-patient treatment, skeletal traction, or several surgeries are transferred to this ward, as they need psychophysical rehabilitation.

8. Intensive Care Unit.

RESULTS OF THE STUDY: It should be noted that the hospital provides assistance not only to children of Samarkand, but also to the most severe patients from towns and districts of the north of the region. For this purpose, children's surgeon, neurosurgeon and resuscitator are on daily duty by air ambulance. When a call comes in, the specialists leave or fly out to the respective cities and towns and, after rendering necessary assistance on the spot, transport the child to the hospital.

Emergency care for injured children is organized in the hospital in such a way that upon arrival a child is examined by several doctors at once: a traumatologist, a surgeon, and a neurosurgeon. If necessary, a pediatrician, intensive care specialist, otorhinolaryngologist, and endoscopist are involved.

Here immediately examination is performed: clinical, radiological, and ultrasonic. After the diagnosis is established, medical documentation is prepared, and the patient is taken to an operating room, manipulation room, or plaster room for primary surgical treatment of wounds, manual repositioning of fractures, splints for skeletal traction, plaster bandages, etc. The peculiarity of pediatric traumatology is that a significant part of these procedures is performed under general anesthesia. The child is then admitted to a specialized department or, in case of combined injuries, to the department corresponding to the most severe injury.

If there is a need for emergency abdominal, neurosurgical or other complex and traumatic operations, and if children are admitted in severe condition (combined or severe neurotrauma), the patient is immediately admitted from the emergency department to the intensive care unit, where clinical, radiological and instrumental examinations are performed simultaneously with resuscitation measures and preoperative preparation. After establishing the clinical diagnosis and stabilization of hemodynamics, the child, often on artificial ventilation, is taken to the surgical unit. In critical situations (ongoing profuse bleeding, unstable hemodynamics), which creates a danger even when transferring and transporting the patient, emergency surgical intervention is performed in the intensive care unit.

When a patient in critical condition or several victims at once is transported by ambulance from the scene of the accident (emergencies), this is reported to the clinic even before they arrive, and the children are met by the entire team of doctors on duty. To improve the quality of care at the pre-hospital stage and closer interaction with the ambulance, joint conferences are held in the clinic of pediatric surgery, where the results of treatment, errors and omissions, and deaths are discussed in detail.

The retrospective study has shown, that for the last 5 years 42145 children have addressed to the trauma clinic of pediatric surgery ¹ 1 for primary treatment. There were 2243 children in the department of traumatology, 1421 in the department of neurosurgery, 230 in the department of otorhinolaryngology, 55 in the department of urology, 84 in the general surgery (only with internal organs injuries). In treating patients we follow the principle of minimally invasive organ-preserving operations in children. Thus, in case of ruptures of parenchymatous organs (kidney, spleen) the wounds are mostly sutured and glued. Organ removal is allowed only in case of its detachment from the vascular stem or crush. In the last three years, laparoscopy has been used more frequently to stop internal bleeding. In severe craniocerebral trauma the clinic does not perform resection decompression craniotomy. If a patient is diagnosed with intracranial hematoma, bone-plastic trepanation is performed, which subsequently avoids the need for cranioplasty; or blood accumulation above and below the membranes is removed by puncture (the latter is more often performed in young children). For small intracranial hematomas that do not cause brain compression and dislocation, conservative treatment is performed under the supervision of neurosonography and computed tomography. In patients with depressed, even open skull fractures, careful surgical treatment of the wound and fracture repositioning are performed, which creates optimal conditions for independent closure of the bone defect.

CONCLUSIONS: For fractures of the tubular bones, due to the high professionalism of orthopedic traumatologists, in most cases one-stage manual repositioning is used, followed by fixation with a plaster cast or plastic material. In cases when conservative treatment is impossible or unsuccessful, skeletal traction, extrapelvic or bone metal osteosynthesis is used, depending on the indications. Despite the fact that patients with severe combined trauma sometimes had to undergo several operations and multiple hospitalizations, including courses of rehabilitation treatment, as a result, in the vast majority of cases, children are discharged with complete recovery, without any immediate orthopedic or other consequences. The only exceptions are children who have suffered severe craniocerebral trauma. In the presence of neurological disorders, they are referred to neurologists for treatment and dispensary observation. Over the past 5 years, 18 patients have died of trauma in the clinic. These were children with severe combined craniocerebral trauma, who had time to be delivered to the hospital in critical condition, before the onset of biological death. A detailed analysis of each of these cases was performed at the general clinical conferences. The trauma in these patients was found to be incompatible with life. The conclusions of the forensic examination confirmed these conclusions.

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