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EPIDEMIOLOGY OF EMERGENCY ABDOMINAL CONDITIONS IN CHILDREN
- THE PRACTICE OF THE EMERGENCY MEDICINE DEPARTMENT
AT THE MEDICAL UNIVERSITY OF ŁÓDŹ

Key words: epidemiology, acute abdomen, children

Emergency surgical abdominal conditions noticed after injuries are the second cause of children's treatment at the Hospital Emergency Department or at the emergency ward. However, the profile of surgical intervention on duty shift has changed.

The aim of the paper is analysis of diseases within children's abdominal cavity that need emergent surgical intervention, diagnostic algorithms and specification of conducted operations.

Material and methods. 341 cases of sickness histories were analysed. These included sharp stomach and sharp scrotum. They took place in 2006 at Emergency Clinical Ward of USK, No. 4 of UMW in Łódź.

Results. In study material, the majority consisted of children older than 8 (68%), the smallest group were newborns, infants and children up to 4 (15%). The reason for hospital treatment was - acute abdomen (59,3%), appendicitis (20,3%), symptoms of acute scrotum (boys) (13,7%), abdominal injuries (7,5%) and newborns with congenital defects of alimentary canal as well as the abdominal wall (1,5%). Among infants pylorostenosis predominated (25%).

The most often operations on emergency duty consist of: the Morgani's appendix, detorsion of testis and separations of adhesions in cleus. Operations in newborns on emergency duty are rare.

Conclusion. Introducing of USG examination in diagnosis of acute abdomen and scrotum have made the indications to surgical treatment easier.

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ANALYSIS OF MULTIPLE AND MULTIORGAN INJURES IN CHILDREN

Key words: multiple injuries, multiorgan injuries, epidemiology, treatment, children

Multiple body injuries are injuries of at least two main body regions, of which every (even alone) requires hospital treatment. Multiorgan injuries are injuries of a few organs in one or more main body regions. Injuries are one of main causes of death and cripple hood in children. The aim of the paper was the answer to questions: what is epidemiology of multiple and multiorgan injuries in children, how to treat in conservative manner, does the way of treatment depend on child's age, what complications did occur in children? Clinical material concerned 37 children treated from 2004 to 2005 in Provincial Specialistic Pediatric Hospital in Kielce because of multiple and multiorgan injuries. We have analyzed medical records (case history with nursing records), patient's age, sex, time of hospitalization, time of unconsciousness, type of injuries, applied treatment - especially drugs, radiological examinations, complications and nursing problems in those patients. Based on analysis we stated, that: multiple and multiorgan injuries are more frequent in boys, in age of 7 to 12 years, pedestrians hit by a car or passengers. In majority of patients conservative treatment was sufficient. We operated on patients with increasing intracranial pressure due to haematomas or with unstable hemodynamics due to injuries of abdominal organs. In clinical material younger children were treated more frequently than older ones. The most severe complication, or rather result of injury was death of a child. Decubitus ulcers, cholelithiasis, hemorrhage or bile leaking after an operation were more frequent complications.

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INTERFASCIAL TIGHTNESS SYNDROME OF THE UPPER EXTREMITY IN CHILDREN

Key words: interfascial tightness syndrome, the upper extremity, children

Traumas of the upper extremity, inflammations, also neoplasms and some congenital anomalies can trigger increase of pressure between its fascias. Such state called interfascial tightness syndrome can lead to disturbances of nervure and blood supply, ending even with loss of a part or whole extremity.

The authors presented in the paper cases of children treated from 2003 to 2007 in the Clinic of Pediatric Surgery and Traumatology of Medical Academy, in the Pediatric Clinical Hospital in Lublin, because of interfascial tightness syndrome. They described causes of that syndrome, types of extremital dysfunction, applied treatment and its results. They pointed to necessity of thorough clinical observation and proper surgical intervention in such cases.

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OPERATIVE TREATMENT OF FRACTURES OF THE CLAVICLE IN CHILDREN

Key words: The clavicle, fracture, osteosynthesis intramedullary, children

We studied retrospectively, 23 fractures of the clavicle in children treated by intramedullary nailing between 1999 and 2001. We performed open reduction in 22 children. In one child percutaneous pinning was possible. The anatomical reduction was achieved in all cases. The postoperative course was uneventful in all cases, we didn't notice any infectious complication. The irritation of skin above the protruding end of pin was the only complaint. The pins were removed after 2-4 months. No any additional immobilisation was applied.

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INTRAMEDULLARY NAILING WITH KIRSCHNER WIRES IN FRACTURES
OF METACRPEAL BONES

We propose a methode of intramedullary nailing in the cases of metacarpeal fractures in children. The reduction consiste of introducing a 1,6-2,0 mm of diameter Krirschner wire into medullar cavity.

Between 2000-2005 8 patient were treated according this methode. There were not an complications. The uninon of bone, estimated on x-rays, was satisfactory after 4 weeks periode in all cases.

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ARTHROSCOPIC TREATMENT OF EMERGENCY KNEE INJURES

Knee injuries in children are frequent, but are usually treated conservatively after plain x-ray diagnostics. Some of them need to be treated operatively. In the paper the authors present benefits due to arthroscopy in diagnostics and treatment of knee injuries in children, pointing to shortening of time of treatment and result, comparing to conservative treatment.

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SET OF FOUR CASES OF DIGESTIVE TRACT PERFORATION DUE TO BLUNT ABDOMINAL TRAUMAS. IS DIGNOSIS OBVIOUS?

Key words: traumas, the abdominal cavity, the small intestine, the duodenum, perforation, children

The authors present four cases of intestinal perforation due to blunt abdominal traumas, paying attention to diagnostic difficulties connected with initially scant clinical signs and unclear results of accessory tests, which led to one day delay of making diagnosis in two cases. Systematic physical examination, control radiological and laboratory tests, as well as second evaluation of previously executed abdominal CT had particular value in diagnostic process.

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RARE CASES OF THE URINARY SYSTEM INJURIES AT CHILDREN

Key words: the urinary system, rare injuries, children

According to epidemiological data from literature and own experience it is well known, that injuries of the urinary system pose from 10 to 20% of abdominal injuries in children. Over 60% of cases belong to multiorgan injuries. Frequency of occurrence and circumstances depend on sex and age of children, place of living and interests. Injuries of the urinary system mainly concern schoolboys, living in the country. We should remember about special circumstances such as traffic accidents and iatrogenic traumas.

Diagnosis of the urinary system injuries is often delayed or omitted because of coexisted injuries of other organs and body regions - especially the head and neck. Diagnostics should be based on precise case history, physical examination and necessary radiological and laboratory tests. It is essential to know if there is necessity of urgent laparotomy.

Kidneys are traumatized most often among organs of the urinary system. Traumas of ureters, the bladder and the urethra are rare. The paper presents rare cases of injuries: disruption of a double kidney, rupture of a solitary renal cyst, rupture of a kidney with defect of a calyx and pelvis, separation of a ureter from a pelvis. Therapeutic results were good in every case due to proper (on time) treatment with use of reconstructive technics.

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“STRADDLE INJURY” OF THE ANTERIOR URETHRA - DESCRIPTION OF THREE CASES

Key words: the anterior urethra, trauma, boys, “straddle injury”

Analysis concerned boys treated in the Clinical Department of Pediatric Surgery, Traumatology and Urology of Medical University in Poznań because of “straddle injuries” of the anterior urethra.

The authors pointed to severe complications, which could be results of those injuries. They presented basic rules of diagnostics and treatment of boys with such type of urethral injuries.

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INJURIES OF THE URINARY SYSTEM IN CHILDREN - AETIOLOGY, DIAGNOSTICS AND
MANAGEMENT

Key words: the kidney, the ureter, the urethra, injuries, children

Injuries of the urinary system concern 10% of pediatric patients post trauma and therefore, they are the most frequent injuries of parenchymous organs.

The aim of the paper is evaluation of therapeutic results in injuries of the urinary system treated in our Clinical Department with use of the new algorithm according to AAST and EAU.

In the Clinical Department of Pediatric Urology from 1991 to 2006 we treated 199 patients with injuries of kidneys, ureters, the urethra and urinary bladder. Current management is based on precise diagnostics allowing for proper classify to treatment.

Conclusions

1. Use of criterions and scales applied for adults is also useful in children.
2. Surgical treatment is necessary in renal injuries of III and higher degree according to AAST and in injuries of other abdominal parenchymous organs or in coexisting congenital renal anomalies.
3. Majority of ureteral injuries coexists with injuries of other abdominal organs.
4. In urethral injuries without rupture of wall continuity, temporal catheterisation of the urinary bladder or sometimes temporal vesicostomia are sufficient proceeding.

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RENAL INJURES IN MATERIAL OF THE PEDIATRIC SURGERY DEPARTMENT OF THE
MEDICAL ACADEMY IN BIAŁYSTOK

Key words: the kidney, traumas, children

Renal injuries occur in 3% of patients hospitalized with trauma, and in 10% of patients with abdominal trauma. Between 2000 and 2007 eleven boys with renal trauma were hospitalized in Pediatric Surgery Clinic of Medical Academy in Białystok. Boys aged 5 to 18, average age 11 years. The most common cause of renal trauma were fall from bicycle - in 3 cases and fall from height in 3 cases, assault - 2, strike against an object. In one case the cause of the trauma was not clear. Seven boys with I, II and III degree of trauma were treated conservatively, 3 boys with III, IV and V degree of renal trauma needed surgical intervention. I, II, and III degree renal injury usually are treated conservatively, IV and V degree renal injury require surgical intervention. CT scan is the preferred study, provides anatomic details and allows visualisation of other abdominal injuries. Urography should be the first line diagnostic tool when CT and USG are not available. Ultrasonography is inferior to CT scan. It may be helpful in follow-up care of renal injuries and as a quick diagnostic in the emergency room. Renoscintigraphy is helpful in diagnosis regarding the function of the injured kidney.

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THE PEDIATRIC CENTER FOR TREATMENT, REHABILITATION AND
RECOVERY OF CONSCIOUSNESS AFTER TRAUMA

Key words: the pediatric center of trauma, treatment, rehabilitation, recovery of consciousness

In the past ten years mortality and cripplehood of children after trauma were reduced due to introduction of two programs by the Ministry of Health. But there is indeed the next problem of severe cripplehood concerning the post-traumatic coma. According to this statement, the Clinical Department of Pediatric Surgery and Traumatology of the Medical University in Lublin has worked up the project of the Pediatric Center for Treatment, Rehabilitation and Recovery of consciousness after Trauma. Children with severe injuries are treated and rehabilitated in this Clinical Department.

This Center has been planned according to: medical needs, localization, architectural solutions, equipment, stuff, costs and its place as a medical unit taking participation in treatment, teaching of medical personnel and in scientific progress.

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TREATMENT OF WOUNDS IN CHILDREN REGARDING ANTITETANIC AND ANTIRABIES
PROPHYLAXIS

Key words: wounds, children, management, prophylaxis, tetanus, rabies

Wounds in children are common body injuries and according to data acquired from the Clinical Department of Emergency Medicine in 2nd Chair of Pediatrics, Pediatrics and Pediatric Cardiology in Łódź and they concern 33% of all patients treated in this Department after traumas.

The paper presents subject of wounds in children based on literature and own experience. The authors present first aid in wounds in children and factors influencing on healing. They pointed to rules of pre-hospital medical help given by emergency teams in ambulances and in a hospital emergency department. Medical management depending on type of a wound was described. Special attention was paid to antitetanus and antirabies prophylaxis, regarding risk group based on many factors.

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SUCCESS AND FAIL IN THE MANAGMENT OF SEVERELY BURNED CRIPPLED PATIENT.
HYPERBARIC OXYGEN THERAPY

Key words: burns, hyperbaric oxygen therapy, child

Authors present severe burn of more than 30% of the body, disabled 17-year old boy. He has the victim of gasoline explosion. Long period of treatment was caused not only by the burn itself but also by some technical difficulties with general anaesthesia due to his micrognathia. The other problems was shortage of healthy skin for transplantation and lack of cooperation with the patient. Authors present methods of hyperbaric therapy used in this case.

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CHEMICAL BURNS - RESULTS OF CARE ABOUT SMALL CHILDREN

Key words: chemical burn, children

Thousands of chemicals are capable of producing chemical burns. Concentration and amount of the chemical involved, duration of contact, total area of contact, and intrinsic properties of the chemical combine to determine the extent of injury. Due to prolonged contact of the chemical with the skin, two girls hospitalised in our Clinic demanded skin grafts and amputations. The important principles of management include early removal of the chemical and copious water lavage.

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DUODENAL PERFORATION IN CHILD WITH COLOR PENCIL

The case of 11-year -old boy with *cris du chat* syndrom was operated upon for unusual duodenal perforation with color pencil. The surgical treatment was uneventful.

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ANAL AND RECTAL INJURIES IN 2 CHILDREN

Key words: anal and rectal injuries, children

The paper presents 2 cases of two boys with rectal injuries type of impalement injuries success fully treated in the Department of Pediatric Surgery in Legnica. The authors emphasized dependence of early diagnosis and surgical treatment.

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THE CASE OF URETHRAL INJURY IN COURSE OF
UROLITHIASIS IN THE CHILD

Key words: urolithiasis, the urethra, injuries, children

Urolithiasis in children is relatively rare and poses few percent of general number of such cases in people. Congenital anomaly or infection are the most frequent base of urolithiasis in childhood. Diagnostics of urolithiasis in children is often difficult because of young age, scarce or atypical signs, anxiety or fear of a child, inappropriate content-related and equipment preparation, as well as lack of good consent between medical staff and parents.

The authors presented the case of a 2,5-year-old boy with urolithiasis and a giant calculus wedged in the urethra, which caused its injury. They pointed to necessity of proper diagnostic-therapeutic management in pediatric centers with suitable staff and equipment.

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