

children is bigger than in adults: 2000 ml Ringer lactate for 1 m² of total body surface area + 5000 ml of Ringer lactate for 1 m² of the burns surface. P. Y. Gueugniaud et al. propose the use of crystalloid solutions Ringer lactate only in the first 6 h after the injury, in a dose of 1 ml / kg / % burn area. In the next 18 hours of crystalloids in doses of 1ml/kg / % burn area and colloids in doses of 1 ml / kg / % burn are prescribed. The total volume of infusion therapy should not exceed 4 ml / kg / % burn area during the first 24 hours. K. Okabayashi et al. consider that it is possible to increase the volume of fluids injected in children with massive burns in the first day after injury from 7 to 9.4 ml / kg / % burn. The next day, 50% of the first day dose is used. After 48 h or more, infusion therapy is calculated by the sum of physiological needs and the pathological (abnormal) losses. The issue regarding inclusion of colloidal solutions in the anti-shock measures is currently under discussion. In some of clinical centers, colloidal solutions are recommended in 12-24 hours after the injury - the time when capillary permeability may partially return to normal. However, the albumin infusions to patients during clinical stabilization after an adequate resuscitation with crystalloid infusion therapy resulted in a significant decrease in glomerular filtration rate, despite the increase of plasma volume. Some authors believe that the application of colloidal, protein solutions and / or hypertonic solutions of sodium chloride can reduce the volume of injected fluid. The use of hypertonic solutions may lead to the development of hypernatraemia, hyperosmolarity and an increase of edema in the burned area. There are evidences of the development of renal failure in patients with severe thermal injury, in which a complex anti-shock therapy included hypertonic sodium chloride solution. Despite this, authors consider the application of this solution in the treatment of critical burn shock justified. In general, an infusion therapy program for patients with burn shock is a complex, multi-faceted and highly actual issue.

Ethiology of Thermal Burns in Children

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Burns represents one of the most difficult surgical pathologies in children and include some serious injuries with skin necrosis, fat tissue, muscles, tendons, nerves, blood vessels, bones, with a very dynamic deployment according to the stages, comprising the major symptoms of dehydration, hypoxia, anemia, metabolic disorders, endotoxemia, immune collapse, septic complications, acute multiorgan failure syndrome. According to the Republican Center's for Thermal Injuries statistics, burns in children represents about 5-10% of all acute injuries in children. More than half (64.5%) of children with thermal injuries are nursery and preschool age (1-5 years). But according to severity, complications and disability degree burns are situated as follow: electric burns (3.5-4%), by flame (14.2%), by contact with incandescent solids (8.7%). In most cases burns were caused by hot liquids (72.8%). The present study was conducted by Burns and Plastic Surgery Clinic of the Clinical Republican Hospital for Children "Em.Cotaga" over the past 10 years. Analyzing the evolution of trauma in 4864 children aged up to 18 years, we have elucidated the incidence, nature of deterioration, and burns complications. After etiology factors: burns with hot liquid, overheated steams - 2682 (55.1%), burns by flame or by electric flame - 1182 (24.3%), burns by incandescent bodies - 835 (17.2%), electrical burns - 262 (5.4%), chemical burns - 36 (0.7%), solar burns - 49 (1.0%). According to the depth of the burn: superficial burns (I-II-IIIa) - 2160 (44.2%), deep burns (IIIB to IV) - 2704 (55.8%). Complications: thermal shock was found in 26% of all traumatized children, septic complications - manifested by septic shock, destructive pneumonia, myocarditis, hepatitis, nephritis and toxic encephalopathy were detected in 6.4% of hospitalized patients. Location: The most frequent location of burn are upper limbs, the head -72.5%, on the 2nd place were placed patients with facial, neck and torso burns, - 48%, the lower limbs have 26% of all trauma patients, but

for this location the most serious burns are characteristic. Burns in children represent some serious injuries with skin necrosis, fat tissue, muscles, tendons, nerves, blood vessels, bones, with a very dynamic deployment according to the stages, comprising the major symptoms of dehydration, hypoxia, anemia, metabolic disorders, endotoxicosis, immune collapse, septic complications, acute multiorgan failure syndrome. Children's body with its anatomical and physiological specific and immature mechanisms of immune protection, respond inadequately to stress induced by the thermal injury that is why the evolution of the burned disease in children has characteristic and specific adaptive-compensatory mechanisms, which can generate a systemic inadequate response.

Tumors of the Abdominal Cavity in Children

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The incidence of tumors in children is steadily increasing worldwide. In persons under 18 years with tumor, malignant tumors occur 10 times less than benign. They are one of the main causes of infant mortality. Child mortality due to cancer is second after deaths from accidents in Europe and the United States. One of the major challenges of cancer in children is always a late diagnosis of the disease, from which depends the final result of treatment. One of the most problematic in terms of early diagnosis of cancer in children, have always been a tumor processes in abdominal cavity and retroperitoneal space. Volumetric mass in the abdominal cavity is a term that denotes dense or soft formation in any region of abdomen. They may appear at any age. In the case when the mass formation is small, unseen for the eye and the palpation of the surface of child's body, it may remain undetected even with normal physical examination. Prognosis for a child with a mass in the stomach depends on the nature and location of the mass. Objective: To demonstrate the data of personal observations of children with this pathology. Material and methods: To the National Center of Pediatric Surgery "Natalia Gheorghiu" from 2004 to 2009 in the Department of Thoracoabdominal surgery was received 87 children with tumors of the abdominal cavity. On hospitalization were given the following diagnoses: 42 (48%) of the children with a mass of the abdominal cavity, 20 (23%) – liver mass, 16 (18%) – pelvis mass, 3 (3.5%) with the formation of retroperitoneum, 1 (1%) with liver cirrhosis, 2 (2%) with adhesive disease and 1 (1%) with mesenteric cyst. The final diagnoses were as follows in 20 (23%) children – mass in retroperitoneal space, in 17 (19,5%) - the mass in the abdominal cavity in 3 (3%) - intestinal, 10 (11,5%) - liver, 20 (23%) - the internal female genital organs, 3 (3%) - the spleen, 2 (2%) - the stomach and one echinococcus of the mesentery. In 11 (13%) children the data for tumors were not identified: in 4 data for the pathology was not identified, 7 were operated: 2 with hepatitis B, 2 - with abscess, 1 - with intussusception, 1 with adhesive conglomerate, 1 with abdominal lymphadenitis. Results: The children were divided by the age: 1-3 years 26 children with a predominance of mass in retroperitoneal space; 4-7 years, 18 children – mass in the abdominal cavity of children 8-10 years -12 and 11-13 years - 13 children in these groups were not identified the predominant localization? 14-17a - 18 children with a predominance of mass of internal female genital organs. When the new mass formation get to large size the shape and size of the stomach changes to what the attention is played by the parents or physician in routine inspection. The skin over the mass of abdomen, as a rule, does not change, thus retains its normal color.