

HEAT CRITICAL BURNS TREATMENT IN EARLY AGE CHILDREN

Introduction Thermal burns in children is 10-20% of all acute pediatric trauma. The most common are burns from hot liquids age children (0-5 years). The incidence is quoted at the same age 55-60% of total burns in children. Children with his body anatomic and physiologic features and an immature immune protection mechanism reacts inappropriately to stress conditions caused by thermal injury. Aim of the study Determination of the efficacy of tactics used in the treatment in Burn Hospital with pathogenesis characteristics and burned disease evolution in the early age children (0-5 years). Materials and methods Over the past three years (2008-2010) in the Pediatric Clinic of Burns 1956 children aged 0-18 years were treated: children with burns aged 0-5 years - 960 (49%), children from 6-14 years - 744 (38%) and aged 15-18 - 252 (13%). Most hospitalized children were in early age group (0-5 years). Superficial burns were found in 1124 (57%), deep - 832 (43%) cases. The main cause of burns in early age children are hot liquids (80%) in older ages flame burns, contact with incandescent objects and electric burns become more frequent. After children's admission to the hospital, primary wound care was not performed, but they were hospitalized directly in the intensive care ward on special beds made out of net. Then a central veins (subclavian, femoral) approach was obtained and infusion therapy of the shock was stated. The quantity of the fluids transfused within 24 hours did not exceed one tenth of patient's weight, and decreased within 48 hours to 2/3 and then 1/2 of the original. The composition of substances transfused were proteins (10% Albumin, Fresh Frozen Plasma), rheological (Reopoligluclin, Reomacrodex) sol. Ringer, sol. Lactasol, the mixture of 10% Glucose + Novocain 0,125% (1:1), 5% and 10% Glucose; detoxifying drugs (Hemodez, Hemohes). The treatment of the shock included analgesics, antihistamines, anxiolytics, corticosteroids, antiplatelet agents, anticoagulants, and moistened oxygen. In children hospitalized with decompensated shock Dopamine 5mcg/kg/min transfusion were added. At the end of the first 48 hours after the trauma, plasma and antistaphylococcal gamma-globulin, antibiotics are added to the treatment. Results In the last three years (2008-2010) died six children with critical burns over 60% of total body surface area (0-5 years - 4, 6-18 years - 2). Lethality in these years was (0.8%, 0%, 0.28%). Main cause was sepsis -4; thermal shock - two children with burns > 80% of total body surface area. Conclusions Complex therapy of children with critical burns allowed essential decrease of complications and lethality in the burned disease treatment.

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EPIDEMIOLOGIA LEZIUNILOR TERMICE LA COPII

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Tratamentul arsurilor la copii poate ridica o serie de probleme specifice, datorită concentrațiilor anormale de proteine plasmatice, complementului, care influențează local funcția neutrofilului, limfocitului, iar în ansamblu cauzează perturbări în sistemul local și general de apărare imunitară, putând contribui la incidența crescută a complicațiilor septice și a deceselor. Toate modalitățile de rezolvare a acestor complicații sunt grevate de o serie de dificultăți medico-chirurgicale. Evident că principala problemă privește evitarea unor asemenea complicații ce acompaniază frecvent arsurile. Conform datelor Organizației Mondiale a Sănătății și Fondului pentru Copii al ONU (UNICEF), mortalitatea prin leziuni termice se situează pe locul trei cedând doar traumatismului rutier și înecului. Obiectivul lucrării este evaluarea în ansamblu a leziunilor termice la copil. Studiul este unul de ordin sintetic și se referă la pacienții care s-au aflat la tratament în secția de leziuni termice ale IMSP SCRC „Em. Coțaga” în perioada 2009-2011. Am urmărit retrospectiv 954 pacienți cu vârsta între 0-18 ani cu diagnosticul de boala arșilor. Au fost analizate: diagnosticul la internare, anamneza, tabloul clinic și paraclinic, tehnicile operatorii, evoluția postoperatorie. În lotul de studiu au predominat băieții - 57,34%, pe când sexul feminin a constituit - 42,66%. Caracteristicile epidemiologice legate de incidența, vârstă, sex, se suprapun cu datele din literatură. În mod particular s-a constatat o incidență mai mare a arsurilor (80,39%) la copiii cu vârsta de până la 5 ani, în 19,6% au fost afectați copii între 5 - 18 ani și 17,5% - până la un an. Apogeul frecvenței sporite a arsurilor la copiii de 0-5 ani, a fost constatată ca fiind primăvara (27,5%) și iarna (25,5%). Iar la cei de 5 - 18 ani, în perioada activității maxime (vacanță) - deci vara (29,4%) și iarna (25,1%). Au predominat copii din mediul urban - 54,72%, cei din mediul rural - 45,28%. La 54,6% din cei afectați au predominat leziunile a mai multor regiuni anatomice ale corpului (54,6%) și au predominat copiii 70,2% cu suprafața leziunii arse de până la 10%. Studiul denotă o corelație între suprafața arsă și concentrația de C3a a complementului la a 6-7 zi după injuria termică. Studiul a sugerat că cea mai eficientă metodă de tratament a leziunilor termice este profilaxia.

EPIDEMIOLOGY OF THERMAL INJURIES IN CHILDREN

Treatment of burns in children can raise a number of specific problems due to abnormal concentrations of plasma proteins, complement affecting local function of neutrophilli, lymphocyte, and can cause a general disruption in the local immune defence which may contribute to an increased incidence of complications and septic death. All the methods of solving these complications are encumbered by a series of surgical difficulties. Obviously the main issue is to avoid such complications that often accompany burns. According to World Health Organization and UNICEF, mortality from thermal injuries ranks third, after the road trauma and drowning. The objective of the paper is to evaluate thermal injuries in children. The study is one of the synthetic nature and refers to patients who were treated in the burn department of PMSI SCRC "Em. Coțaga" during 2009-2011. We followed retrospectively 954 patients aged 0-18 years with a diagnosis of the burned disease. Were analyzed: diagnosis on admission, history, clinical and paraclinical data, operative techniques, and postoperative course. In the study group were mostly boys - 57.34%, while females constituted - 42.66%. Epidemiological characteristics related to the incidence, age, sex, overlap with the data found in the literature. Particularly, there was a higher incidence of burns (80.39%) in children aged up to 5 years, in 19.6% cases children aged 5-18 years were affected and in 17.5% cases - under 1 year old. The apogee of increased frequency of burns in children aged 0-5 years, was found to be in spring (27.5%) and winter (25.5%). And in those of 5 to 18 years, during the peak activity (holiday) - which is in the summer (29.4%) and in the winter (25.1%). Mostly were affected urban children - 54.72%, 45.28% representing children from in rural areas. In 54.6% of those affected were mostly lesions of several anatomical regions of the body (54.6%) and 70.2% children were burned with wound surface for up to 10%. The study shows a correlation between area burned and the concentration of complement C3a in 6-7 days after thermal injury. The study suggested that the most effective treatment is the prevention of thermal injuries.