

of Arkhangelsk. The mortality rate for this group of patients is very high.

The objective of the study was to identify the reasons for the death of children with gastroschisis and omphalocele, and to find ways to decrease it. The charts of 33 patients with gastroschisis and omphalocele, who were delivered to the Arkhangelsk Regional Children's Hospital from 1994 to 2006, were analyzed retrospectively. The results of the treatment were evaluated according to risk factors of transportation, technique of abdominal closure, and anesthetic management.

The children were transported on average 28.8 hours (range: 1–168 hours) after their birth. Eighteen children (54.5%) were delivered by air transport, 15 children (45.5%) using ground transport. Seventeen (51.5%) of the newborns died. In 8 newborns the cause of death was too tight a closure of the abdominal wall; in 4, it was intestinal inflammation; in 3, it was related to anesthetic problems, and in 2, it was associated with other anomalies. Only 5 of the patients that died were exposed to long transportation times. Sixteen newborns (48.5%) survived, of which 14 also experienced difficult transport conditions.

The defining factor of the high death rate proved to be the applied operative technique. Connected associated anomalies and anesthetic defects also played fatal role. The difficulties of transportation did not contribute decisively to the death rate of this group of patients.

Keywords: children; gastroschisis; mortality; omphalocele; transport
Prehosp Disast Med 2007;22(2):s96–s97

(167) Rendering Medical Care to Children in Emergencies Abroad

G.V. Kipor,¹ A.S. Ivanyus,² I.A. Yakirevich,²
D.S. Berkutov,² N.L. Obratsov,² S.A. Bairamov,³
O.A. Dolgina,² A.V. Sergeev¹

1. All-Russian Centre for Disaster Medicine, Moscow, Russian Federation
2. State Airmobile Rescue Team of EMERCOM, Moscow, Russian Federation
3. Russian Federation

Introduction: Since 1995, the airmobile hospital participated in seven operations in emergency response abroad.

Methods: The hospital consists of 20 pneumo-modules, equipped with technical supply systems. The personnel includes 38 medical specialists and 17 engineers. The airmobile hospital is equipped with modern medical equipment.

Results: Data from five countries since 2001 were analyzed. In Afghanistan, from December 2001 through January 2002, medical assistance was provided to 10,061 injured persons, among them, 1,046 (10%) children. In Iran in 2003, medical assistance was provided to 430 injured persons, among them, 146 (34%) children. After the 2005 Tsunami in Sri Lanka, medical care was provided to 3,500 injured victims, among them, 1,008 (29%) children. In the

hospital, 113 injured persons were treated, including 33 children (29%); in the resuscitation department, of the 76 injured, 25 were children (33%). In March 2005, the hospital was deployed to Nias, Indonesia. In total, 729 injured victims, including 333 children (46%) received medical care. After the 2005 earthquake in Muzaffarabad, Pakistan medical care was provided to 2,469 injured persons, among them 892 children (36%). Children requiring specialized treatment were evacuated.

Conclusions: Considering the large number of children (10.4–45.7%) injured in emergencies, the Russian EMERCOM airmobile hospital has adequate equipment, personnel, and experience to work in the field.

Keywords: children; field hospital; international; medical care; pediatrics
Prehosp Disast Med 2007;22(2):s97

(168) Experience of Treating Long-Bone Fractures in Mass-Admission of Children after Disasters

L.B. Pouzhitzky; S.O. Nikishov; R.A. Keshishjan;
D.A. Ratin; D.Y. Basargin

Clinical and Research Institute, Moscow, Russian Federation

Purpose: The purpose of this study was to optimize treatment techniques of long tubular bone fractures in children who were victims of earthquakes.

Methods: A specialized pediatric team that included pediatric traumatologists, worked at various disaster sites. The team usually started its activity 3–7 days after the onset of the disaster. More than 600 children were examined and consulted; 200 children (six months–16 years of age) were treated. Most skeletal system injuries were isolated or were combined fractures of the low extremities and pelvis. Upper extremity fractures were rare. The most common combined traumas were brain injuries of various severity, injuries of the thorax and the abdomen, and crush syndrome. Conservative methods (e.g., skeletal traction, reposition with the plaster immobilization) and other invasive techniques.

Results: In case of massive numbers of admission, of patients with acute traumatic injuries, the most optimal approaches are low-invasive osteosynthesis techniques, intrasosseous transcutaneous osteosynthesis with TENs, pins, and apparatus for outer fixation of various constructions. Supraosseous and intramedullary-blocked osteosyntheses also are possible, however, they take more time, and in the case of massive numbers of admission, one can have a deficit of fixators. Plaster immobilization is rather limited because of inadequate stability and is indicated only in simple cases. Skeletal traction is indicated only if a qualified team is absent.

Keywords: children; disasters; earthquake; long-bone fractures; mass-admission

Prehosp Disast Med 2007;22(2):s97