

Birth Weight, Compromised Bowel and Sepsis are the Main Variables Significantly Influencing Outcome in Gastroschisis

E. Țarcă, I. Ciongradi, S.G. Aprodu

“Gr. T Popa” University of Medicine and Pharmacy Iassy, Faculty of Medicine, Mother and Child Department, Discipline Pediatric Surgery and Orthopedics, Iassy, Romania

“Sf. Maria” Emergency Children Hospital, Clinic of Pediatric Surgery and Orthopedics, Iassy, Romania

Abstract

Background: The survival rate for gastroschisis has improved to more than 90% in the developed countries, but increased mortality, morbidity, consequent long hospitalisation and high costs are the rule in Romania.

Methods: Analytic retrospective study of all patients with gastroschisis treated at our department between 1990 and 2012. The study protocol included: demographic data, antenatal diagnosis, prematurity, mode of delivery, birth weight, associated anomalies, time to surgery, presence of compromised bowel, type of repair, post-operative complications, time to full enteral feeding, length of hospitalisation, mortality.

Results: 115 newborns with gastroschisis were treated during 23 years. Antenatal diagnosis was made only in 13 cases at a mean gestational age of 25 weeks. Delivery was vaginal in 80.8%. Associated malformations were present in 47 patients. Twenty-four patients had complex gastroschisis. Primary repair was done in 90 cases (79%) and in 24 patients a silo was used. Overall survival was only 29.8%, the main cause of death being severe sepsis with multiple organ failure (61.4%) and bronchopneumonia (52.6%). The rate of complications associated with closure, needing reintervention was 19.3%.

Conclusions: Analysis of risk factors by logistic regression showed that low birth weight increased the risk of post-operative complications 17.4 times, sepsis increased the risk of complicated postoperative course 12.2 times, and the presence of compromised intestinal loops (complex gastroschisis) 5.5 times.

Key words: complex gastroschisis, morbidity, mortality, neonate, risk factors, sepsis

Corresponding author: Assistant Professor Elena Țarcă, MD

“Gr. T. Popa” University of Medicine and Pharmacy Iassy

“Sf. Maria” Emergency Children Hospital

Clinic of Pediatric Surgery and Orthopedics

Iassy, Vasile Lupu Street, no 62

E-mail: elatarca@gmail.com