CHOICE OF TREATMENT METHODS FOR GASTRASHYSISIS AND OMPHALOCELE IN INFANTS

Ruzmatov Izzatbek Bakhtiyorovich
Associate Professor, Department of Pediatric Surgery, Anesthesiology and Resuscitation, Urgench State Medical Institute, Doctor of Science (DSc) (Uzbekistan)
https://orcid.org/0009-0000-6899-4927
Durdiyev Sarvarbek Hayitboy ugli
Assistant at the Department of Pediatric Surgery, Anesthesiology and Resuscitation, Urgench State Medical Institute (Uzbekistan)
https://orcid.org/0009-0008-1691-2035
https://doi.org/10.5281/zenodo.18345838

ARTICLE INFO

Received: 19th January 2026
Accepted: 20th January 2026
Online: 21st January 2026

KEYWORDS

selection of treatment methods for gastroschisis and omphalocele in infants

ABSTRACT

In babies, omphalocele and gastroschisis are considered severe congenital defects of the anterior abdominal wall, occurring in 1.6-3.2% of all other congenital anomalies. If not treated in time, the mortality rate can reach 100%. There is no single universally accepted method of treatment of these developmental defects. "There are especially big differences in the approaches to the treatment of large and giant omphaloceles and total gastroschisis, and cases with a strong viscero-abdominal disproportion limit performing radical plastic surgery of the anterior abdominal wall using local tissue." A significant share of unsatisfactory results, the lack of optimal treatment method, taking into account the size of the defect of the anterior abdominal wall and the clinical course of the disease, the choice of the first aid type, indicate the urgency of continuing research in this direction

Relevance of the problem. In babies, omphalocele and gastroschisis are considered severe congenital defects of the anterior abdominal wall, occurring in 1.6-3.2% of all other congenital anomalies. If not treated in time, the mortality rate can reach 100%. There is no single universally accepted method of treatment of these developmental defects. "There are especially big differences in the approaches to the treatment of large and giant omphaloceles and total gastroschisis, and cases with a strong viscero-abdominal disproportion limit performing radical plastic surgery of the anterior abdominal wall using local tissue." A significant share of unsatisfactory results, the lack of optimal treatment method, taking into account the size of the defect of the anterior abdominal wall and the clinical course of the disease, the choice of the first aid type, indicate the urgency of continuing research in this direction.

Purpose: selection of treatment methods for gastroschisis and omphalocele in infants.

Materials and methods: studies were conducted in 2006-2022 in 243 babies at the Republican Neonatal Surgery Educational-Treatment-Methodological Center. Of these, 133 (54.7%) had omphalocele, 110 (45.3%) had gastroschisis. Out of 133 (54.7%) babies born with the diagnosis of omphalocele, 78 (58.6%) were boys, 55 (41.4%) were girls. Out of 110 (45.3%) babies born with gastroschisis, 62 (56.4%) were boys and 48 (43.6%) were girls. When all patients came to the clinic, in addition to the general clinical examination methods, general radiography of the abdomen, ultrasound examination of internal organs and anterior abdominal wall defects, echocardiography, and neurosonography were performed.

Results: Of 243 infants with gastroschisis and omphalocele, 221 (91%) underwent operative treatment: 181 (82%) underwent radical operative treatment, and 40 (18%) underwent staged surgical treatment. . Preoperative preparation consisted of correction of homeostasis disorders and it was 6-24 hours. 22 (9%) patients underwent conservative treatment. The reason for conservative treatment was that they had many additional defects that prevented surgery. Preoperative preparation consisted of correction of homeostasis disorders and it was 6-24 hours. All infants with omphalocele underwent decompression of the gastrointestinal tract and protection of the hernia sac with sterile dry rubber gloves. The criterion of effectiveness of pre-operative preparation was assessed by recovery of diuresis and hemodynamic indicators.

Conclusion: in gastroschisis and omphalocele, the smaller the size of the anterior abdominal wall defect is an indication for radical plasticity of the anterior abdominal wall, it is advisable to perform a staged operation in large-sized types..

References:

1.Рузматов, И. Б., Якубов, Э. А., & Сапаев, О. К. (2023). КЛИНИЧЕСКОЕ ТЕЧЕНИЕ И ДИАГНОСТИКА ДЕФЕКТОВ ПЕРЕДНЕЙ БРЮШНОЙ СТЕНКИ У НОВОРОЖДЁННЫХ. CONCEPTS OF SUSTAINABLE DEVELOPMENT OF SCIENCE IN MODERN, 5.

2.Bakhtiyorovich, R. I. (2025). Choosing the Path of Operative Correction in the Treatment of Infants Born With Omphalocele and Gastroschisis. Spanish Journal of Innovation and Integrity, 49, 101-103.

3.Bakhtiyorovich, R. I. (2025). Choosing the Path of Operative Correction in the Treatment of Infants Born With Omphalocele and Gastroschisis. Spanish Journal of Innovation and Integrity, 49, 101-103.

4.Бахтиёрович, Р. И., Кадирович, С. О., Раймберганович, А. А., и Бердалиевич, Э. Б. (2020). Диагностика и лечение гастрошизиса у новорождённых в Республиканском учебном центре неонатальной хирургии при Республиканском перинатальном центре, Ургенчском филиале Ташкентской медицинской академии. Европейский журнал молекулярной и клинической медицины, 7(3), 3853-3859.

5.Рузматов, И. Б., Эргашев, Б. Б., & Сапаев, О. К. (2020). ВЫБОР СПОСОБА ХИРУРГИЧЕСКОЙ КОРРЕКЦИИ ГАСТРОШИЗИСА У НОВОРОЖДЕННЫХ. Новый день в медицине, (4), 192-194.

6.Ruzmatov, I. B. (2019). ANALYSIS OF RESULTS OF TREATMENT OF NEWBORNS WITH OMPHALOCELE. Toshkent tibbiyot akademiyasi axborotnomasi, (5), 129-131.

7.Рузматов И. Б., Эргашев Б. Б. (2018). Диагностика и методы лечения омфалоцеле большого размера у новорождённого.

8.Рўзматов, И. Б. (2018). Янги туғилган чақалоқларда омфалоцелени ташхислаш ва даволаш муаммосининг умумий ҳолати.
9.Рузматов, И. Б., & Эргашев, Б. Б. (2017). Диагностика и хирургическое лечение омфалоцеле у новорожденных. Детская хирургия, 21(3), 131-133.
10.Эргашев, Б. Б., & Рузматов, И. Б. (2013). ЛЕЧЕБНАЯ ТАКТИКА ПРИ ОМФАЛОЦЕЛЕ У НОВОРОЖДЕННЫХ. Новый день в медицине, (2), 48-49.