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RESULTS OF SURGICAL TREATMENT IN INFANTS BORN WITH ESOPHAGEAL ATRESIA

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Abstract: According to a large number of authors from the CIS countries and foreign countries on the treatment of esophageal atresia in young children, despite a number of achievements, many problems in this regard, as well as problems associated with technical aspects, have not been resolved, and mortality in this pathology is 40- 60%.

This guideline describes balloon tamponade of the cardia of the stomach and an improved method of applying esophagoanastomosis with a 180° rotation of the esophagus around its axis and suturing the anterior wall of the esophagus in young children diagnosed with esophageal atresia. The proposed tactical and technical approaches have made it possible to reduce the frequency of early postoperative complications and mortality associated with the operation, improve the quality of life of young children. The manual is intended for pediatric surgeons of neonatal surgery departments of specialized regional children's medical institutions.

Key words: esophageal atresia, esophagoanastomosis, young children, surgical treatment.

Relevance of the problem. Esophageal atresia is a common congenital malformation in pediatric surgery, occurring in 1:3000 infants, requiring prompt diagnosis and urgent surgical intervention [3, 4, 5, 8, 12, 14, 16, 21]. Lower tracheoesophageal fistula is the most common type [7, 21]. In most cases, surgical repair of esophageal atresia is not considered urgent, with the exception of infants with severe respiratory distress syndrome and requiring respiratory support. Thoracotomy remains the main approach to repair this defect. Providing highly qualified medical care to patients in this category requires specialized equipment and specialists, which are currently in short supply not only in our country, but also in many countries around the world [1, 2, 9, 11, 15]. Unfortunately, despite the large number of research studies devoted to the diagnosis and treatment of surgical pathologies and congenital defects in infants in recent years, medical and social research in this area is rare. According to the information of a large number of CIS countries and foreign authors on the treatment of esophageal atresia in babies, despite the many achievements, many problems in this regard, as well as problems related to technical aspects, have not been solved [5, 9], and the mortality rate due to this pathology is 40-60%. is forming [2, 13, 20]. Difficulties arise in eliminating this defect, especially in babies with concomitant somatic diseases [1, 19]. Numerous reports in the literature on the adverse effects of thoracotomy on the musculoskeletal complex of the growing organism have led to the introduction of less invasive methods, such as thoracoscopy, in the practice of eliminating this defect [6, 17, 18]. However, along with the advantages of this method, contraindications to thoracoscopy have been identified due to the collapse of the ipsilateral lung in children weighing less than

2 kg and in severe lung pathologies. In addition, transpleural access is considered one of the disadvantages of thoracoscopic correction.

Often, diagnostic and tactical errors are made in congenital malformations without visible external defects, such as esophageal atresia. 58% of infants born with such anomalies are admitted to the surgical hospital within 3 days, while 42% of patients requiring emergency care are brought to the surgical department after 4-6 days, which creates the basis for the development of negative consequences.Шундай қилиб, ҳозирги пайтгача қизилўнгач атерзиясининг коммуникацион шаклларини ташхислаш, уларни жаррохлик йўли билан бартараф қилиш бўйича ягона нуқтаи-назар мавжуд эмас.

Research material and methods of investigation. The research study analyzed the results of surgical treatment of 178 infants with CA who were admitted to the Republican Neonatal Surgery Training-Treatment-Methodological Center (RPM NHODUM) under the Republican Perinatal Center and the Andijan Regional Children's Multidisciplinary Medical Center (AVBKTTM) with CA during 2015-2019, and only 167 infants who were admitted with fistula CA and underwent primary (direct) anastomosis were admitted. During the study, methodological approaches changed in the diagnosis and treatment tactics of infants with fistula CA, depending on the likelihood of complications and the possibilities of intensive therapy. For this reason, all clinical materials were divided into two groups (Table 1).

Distribution of infants in the study groups according to sex, body weight and gestational age. Table 1

№	Main indicators	Main group (n=104)		Control group (n=63)		Total (n=167)	
		абс	%	абс	%	абс	%
1	Boys	59	56,7	28	44,3	87	52,1
2	Girls	45	43,3	35	55,7	80	47,9
3	Full-term	76	73,1	57	90,5	133	79,6
4	Premature	28	26,9	6	9,5	34	20,3
5	Average body weight	2760		2792		2776	
6	Gestation period, weeks	37,3		38,2		37,7	

The control group included 63 infants with CA diagnosed and who underwent conventional anastomosis in 2015-2016. Of these, 28 (44.4%) were boys and 35 (55.6%) were girls, with a higher proportion of full-term infants (57; 90.5%) than premature infants (6; 9.5%). The mean gestational age of the infants at birth was 38.2 weeks, and their body weight was 2792 grams. All infants in this group underwent conventional primary anastomosis.

The main group included 104 infants with CA who were treated during 2017-2019. Of these, 59 (56.7%) were boys and 48 (46.1%) were girls, and the proportion of full-term infants (76; 73.1%) was higher than that of premature infants (28; 26.9%). The average gestational age of the infants at birth was 37.3 weeks (range 25 to 43 weeks), and the average body weight was 2760 grams (range 1190 to 4480 grams).

Based on the results of surgical treatment of infants in the control group and literature data, it can be concluded that the high incidence of anastomotic instability in operations performed using the traditional method is associated with the following:

- due to the lack of adaptation of the ends of the esophagus, the anastomotic seal is not sufficiently ensured;
- Installation of double-row sutures in babies with QA is considered to be a factor causing additional crushing of tissues, dampness of blood, development of severe circulatory hypoxia;

- Constant contact of gastric contents with the anastomotic zone complicates the anastomotic process and increases the risk of instability.

All of the above aspects required the search for new solutions to overcome this problem. To this end, the method of forming esophago-esophagoanastomosis in infants diagnosed with CA was technically improved and the results obtained were compared in both groups.

Conclusion. This guideline proposes a method for establishing esophago-esophagoanastomosis in infants with esophageal atresia by improving the technical aspects of surgical treatment.

In infants with esophageal atresia, the rate of esophagoanastomosis performed by the traditional method was 44.4%, and the rate of esophagoanastomosis performed by the proposed method was 8.65%. The most common complication was esophageal anastomosis instability.

The mortality rate in the proposed treatment method was 12.0%, and in the traditional treatment method it was 33.3%, i.e., the mortality rate was reduced by 2.5 times, and the rate of positive results increased from 66.6% to 87.5%.

Шундай қилиб, қизилўнгач атрезияси ташхисланган чақалоқларда хирургик Analysis of treatment results showed that the proposed tactical and technical approaches allow to reduce early postoperative complications and surgical mortality.

Адабиётлар рўйхати

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