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Modern Aspects of Prenatal Diagnostics and Obstetric Tactics at the Esophagus Atresia of the Fetal

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Abstract: This article presents an ultrasound examination of 38 pregnant women with suspected esophageal atresia in the Republican Perinatal Center, Department of Neonatal Surgery, during 2022-202 5 , as well as a retrospective analysis of the age of the pregnant woman, the number of births, obstetric history, method of delivery, gestational age of the newborn, birth weight, Apgar score, presence of additional defects, and consequences of esophageal atresia.

Relevance

In recent years, significant advances have been made in antenatal diagnosis of fetal anomalies. Prenatal ultrasonography allows for the detection of various congenital malformations of the fetus. Currently, according to literature data, the effectiveness of antenatal diagnosis of malformations in developed countries is 20% in first-level institutions, 55% in second-level institutions, and reaches 90% in perinatal centers [1].

AP is one of the antenatally diagnosed and corrected developmental defects, prenatal diagnosis of which allows for advance planning of the time, place and method of delivery, selection of obstetric tactics, identification of associated anomalies of other organs and systems, and also makes it possible to predict the outcome.

Purpose of the study

This the study was conducted with the aim of to conduct a retrospective analysis of the results of prenatal diagnosis and obstetric tactics for esophageal atresia.

Materials and methods

In this study, a retrospective analysis of cases of antenatal diagnosis and obstetric tactics for AP was conducted at the Republican Educational, Treatment and Methodological Center for Neonatal Surgery at the Russian Orthodox Church for 2022–2025 , which is the clinical base of the Department of Hospital Pediatric Surgery of the Tashkent Pediatric Medical Institute (TashPMI). During this period , there were 15,463 deliveries at the ROC, of which 297 (1.92%) cases were found to have various congenital fetal anomalies. Of all 297 (1.92 %) pregnant women with congenital fetal anomalies, 38 (12.8%) were suspected of having AP antenatally . All pregnant women underwent ultrasound examination in the second or third trimester. For the retrospective analysis, the following data were collected: maternal age, number of births, obstetric history, methods of delivery, gestational age, birth weight of the child, Apgar score , concomitant congenital anomalies of other organs and systems, as well as the outcome of the given defect.

Results and discussion

An ultrasound examination of 38 pregnant women with suspected fetal esophageal atresia was performed in the second and third trimesters of pregnancy. EA can be diagnosed from 20 weeks of gestation, but its signs may not be constant. Therefore, dynamic observation and comparison of sonographic signs of esophageal atresia are necessary . All 38 pregnant women with antenatal suspicion of fetal esophageal atresia were observed by a gynecologist and a pediatric surgeon during pregnancy at the Republican Perinatal Center. In our case, the average time of diagnosis of esophageal

atresia in the fetus was 27 ± 3 weeks . The main sonographic signs were: polyhydramnios, which was detected in all cases, the absence of gastric echoshadow or its small size (microgaster) - in 22 pregnant women, and in 16 cases, a dilated pharynx and the proximal end of the esophagus were visualized . Of the 38 pregnant women with suspected AP, 15 (40%) were aged 17-30 years, 23 (60%) were aged 31-40 years. There were 16 primiparous women (42%), 22 (58%) multiparous. Pathology of the genital organs was noted in 6 women (16%), extragenital pathology (acute respiratory viral infection, pyelonephritis, goiter, anemia, etc.) - in 11 (29%) women . The birth of children with developmental defects in previous births was noted in 4 women (10%), miscarriages in early gestation - in 7 (18%) and the threat of termination of pregnancy - in 4 women (10%). Of the 38 pregnant women, 27 (71%) had physiological births, and 11 (29%) by cesarean section . Postnatally, the diagnosis of esophageal atresia was confirmed in only 16 newborns, and thus, the accuracy of antenatal diagnosis of AP was 42%.

Children born with AP are distributed by birth weight (Waterston classification): 1) group A up to 1800 g was - 3 (19%); 2) group B - 1800-2500 g - 4 (25%). The state at the 5th minute on the Apgar scale was 7-8 points in 11 (68%) newborns, and below 7 points in 5 (32%), who were born before 37 weeks of gestation.

Among our children, 10 (62.5%) were found to have Based on the presence of concomitant defects and dependence on artificial ventilation (AV) in the preoperative period , the newborns were divided into two groups (classes) according to the Montreal (D. Poenaru) classification . The first group (class I) included three newborns with "minor" concomitant defects, one of whom required artificial ventilation. The second group (class II) included seven children with "major" or "life-threatening" concomitant defects, and dependence on artificial ventilation was noted in three of these cases.

Of the 16 neonates with AP, 5 (31%) died during the preoperative period, before surgery . In addition, 2 (12.5%) children died in the postoperative period. A total of 7 died, and these children belonged to groups A and B according to the Waterston classification , and to class II according to the Montreal (D. Poenaru) classification . The immediate causes of death were "major" or "life-threatening" concomitant defects, prematurity and respiratory distress syndrome, aspiration bronchopneumonia and its complications in the form of pyothorax , bronchopleural fistulas and pulmonary edema, as well as sepsis.

Conclusion

Antenatal ultrasound diagnosis of fetal esophageal atresia is possible from 20 weeks of pregnancy and should be performed serially. It helps prevent missed early postnatal diagnosis and various complications, the most common of which is aspiration bronchopneumonia. Antenatal diagnosis and delivery should be performed in collaboration between an obstetrician-gynecologist and a neonatal surgeon in a perinatal center with the necessary facilities for diagnosis, labor management, neonatal surgical care, and neonatal nursing.

Literature

1. Kozlov Yu.A. , Podkamenev V.V., Novozhilov V.A. Esophageal atresia. – Moscow: “ Geotar - Media”, 2015.- 345 p.
2. Savvina V.A., Okhlopkov M.E., Gotovceva L.V. et al. // Antenatal diagnostics of surgical pathology of the fetus according to the data of the National Center of Medicine. // Far Eastern - Medical Journal. - 201 6g- N 4. - 21-24.
3. Garabedian C, Sfeir R, et. al. Does prenatal diagnosis modify neonatal management and early outcome of children with esophageal atresia type III? //J Gynecol Obstet Biol Reprod (Paris). 2015 Nov;44(9):848-54. doi:10.1016/j.jgyn.2014.12.004