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Diagnosing and Methods of Treatment of A Large-Size Omphalosele on A Newborn

Ruzmatov I.B, Ergashev B.B.

1. 100140, Tashkent, Uzbekistan, Republican educational and treatment-methodological center of neonatal surgery at the Republican Perinatal Center

2. 100140, Tashkent, Uzbekistan, Department of Hospital Pediatric Surgery and Oncology of the Tashkent Pediatric Medical Institute

For correspondence: Bakhtiyor Ergashev, MD, Head of the medical, methodical and training center of neonatal surgery at the Republican perinatal center, e-mail: izzat.oga@mail.ru

Purpose: Improving the diagnosis and treatment of large-size omphalocele in newborns. **Material and methods:** Under the supervision of 103 infants with omphalocele diagnosis at the Republican Neonatal Surgery Training and Treatment and Methodical Center under the Republican Perinatal Center in 2006-2017. In our patients, large-sized omphalocele was detected in 24 (23.3%) patients with moderate size omphalocele - 39 (37.9%) and 40 (38.8%) in small-size omphalocele. Of these, 45 (44%) were girls, 58 (56%) boys. Of the total amount, 84 (82%) of the newborns who were born with omphalocele at birth, and 19 (18%) were infants born prematurely. **Results**: Totally 103 of the infected with omphalocele 32 (31%) babies died. Factors leading to the death were the presence of additional malfunctions (21 children - 66%) and severe somatic dysfunction. In all mortality cases aspiration bronchopneumonia, 11 (34.4%) early childbirth, 12 (37.5%) cases of body temperature decreased and scleremia. In addition, it has shown its significant effect on the postoperative and operative treatment process, as well as there were changes in brain during in neonatal neurosonography. The cause of death in 4 children (12.5%) was related to brain hemorrhage and swelling. It should be noted that 12 (50%) cases with 24 large-size omphalocele have been reported to have died.

Conclusion: Thus, it has been found that infant survival depends on their birth weight, the level of viscosity-abdominal disproportion, the presence of satellite defects and hernia sizes. Obviously, the survival rate of infants is higher in the small and medium sizes of the umbilical cord, and lower in large sizes. It was determined that there was a relationship between the hernia size and the extra defects. The larger the size of the hernia, the greater the number of defects (95.8%). **Key words:** Newborns, omphalocele, diagnosis, treatment.

The urgency of the problem: Omphalocele (embryonic hernia) is a severe defect of the abdominal wall where a part of abdominal organs is located outside the peritoneum, such as amniotic, vartenovic and abdominal membranes when a child was born. Children with large-size omphalothexia are taken almost always in a serious condition to the hospital. Usually, such children

have azionosis in the skin. Body temperature can also increase. Children are sluggish, they are less active. When examining the abdomen, it should be noted that it does not have a large size, its lateral surfaces and epigastria tension in the breath. A large hernia contains most of the liver, with the exception of the intestine. The presence of this organ in the hernia fold, which is less elastic and has a constant size, often leads not to develop the structure of the organ and a small amount of intra-abdominal cavity. Because of the complications of the diaphragm in the abdomen there may be even heart and lungs in the hernia. As a result of severe tension, intra-abdominal pressure increases dramatically, resulting in diaphragm, veins, and intestinal obstruction caused by elastic and pelvic organs. From the clinical point of view, serious respiratory distresses (pressure in the pelvic veins and gall bladder system, taxi-brad arrhythmia, and acistolia) appear. All of these symptoms will only disappear after the organs are stopped forcing to place [5, 6, 7].

According to different authors, the incidence of these defects in babies is between 1: 1200 and 1: 21,000. They are found in one of every 6,000 children born on average. In 54% of the cases, congenital defects of other vital organs and systems (heart, central nervous system, urinary system), as well as 13 and 18 pairs of chromosome trisomy, Daun, Backwith-Wiedemann syndrome, are combined with genetic diseases . In this pathology, the mortality rate varies widely, with an average of 9.1-65% [1, 3].

Most of the hernia enters the bowel loops, the stomach and the liver, two layers: internal (peritoneal) and external (amniotic) curtain. The smooth and glossy curtains consist of vartonovic substance and stenotic peritoneum, and in some cases, the structure of the hutch is visible. The biliary system is directly attached to

the peritoneum, especially to the substrate. The stomach chest opens to the abdominal wall of the abdomen, where the skin may be partially enclosed in the ring [4].

For a long time, the problems treating such kind of patients had not been solved. The high mortality rate in this pathology is due to the poor choice of antenatal, intranasal, postoperative and postoperative patients, as well as the using wrong methods to close the defect [1]. Recent publications have shown that infant mortality rates are rising and the mortality rate among CIS countries is 23-55% [2, 3]. Until now, the efficacy of the surgical treatment of hippocatcine hernia remains challenging and depends on the anatomical features of the anomaly. Although localized tissue with one stage radical cloth is always preferred, it is limited use of vistsero-abdominal disproportional abdominal wall defects [3]. This surgical procedure in children is often associated with severe complications associated with the death of the lower pelvic vein, resulting in concussion syndrome. This anomaly is important in diagnosing prenatal ultrasound when dealing with many congenital deficiencies, while deciding on the time of the fetus. According to literature, the minimum diagnosis of these deficiencies is 12 weeks ± 3 days [8]. Sometimes the defect is not diagnosed as a complete diagnosis of antenatal diagnosis, the low level of awareness of pregnant women in counseling centers, and the lack of specialists in this pathology.

The above mentioned suggests that this treatment is a problem, because the method of treating large-size omphalocele in newborns is not only a medical but also a social problem.

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The babies born with omphalocele were hospitalized in the following period. 76 babies were hospitalized (73.8%) on the first day of life, 15 babies (14.6%) on the 2nd day, 6 (5.8%) on the 3rd day and 6 (5.8%) in 4 days.

Postnatal diagnosis in the umbilical cord was not difficult. The diagnosis of omphalosis was mainly based on clinical and laboratory and instrumental data.

In all patients, besides for the general clinical trial, general X-ray, internal organs and ventricular anomalies, echocardiography, and neurosynchrony were performed.

Results and discussion. According to the hernia shell, our patients were distributed as follows: 11 (10.7%) cases were complicated by omphalocele and 92 (89.3%) uncomplicated forms. In 3 (2.9%) cases, an iatrogenic injury was detected, causing a small bowel obstruction due to the close connection of the navel to the trunk. In almost all of our patients, the hernia sac contains stomach, liver and bowel loops. 63 (61.2%) of our 103 patients were diagnosed with UTT during animalcular antenatal care. In pregnant women, it was detected in the first trimester of pregnancy - 4 (6.3%), in the second trimester - 24 (38.1%) and 35 (55.6%) in the third trimester 44 (42.7%) patients who

were under our supervision had anomalies, and 59 (57.3%) had one developmental defect in the umbilical cord. Among the complex defects, 21 (47.7%) had cardiovascular disorders, 13 (29.6%) had gastrointestinal disorders, 10 (22.7%) had other organs and system defects. It should be noted that the larger the size of the navel, the greater the likelihood of additional defects. Thus, 23 (95.8%) of 24 children with large ophthalothelium found significant defects.

It is known that the treatment of ophthalocele is mainly performed operatively. Preoperative preparation consisted of correction of homeostasis and it takes 6-24 hours. When all infants with omphalocele is treated with gastrointestinal decompression and sterile dry saline coating. The effectiveness of the preoperative preparation is assessed by the recovery of diuresis and hemodynamics.

91 (88.3%) of our 103 patients underwent surgical procedures. A total of 77 cases (84.6%) of the 91 operated cases were radically operated. Conservative treatment was applied to 14 (15.4%) patients with stage-by-stage surgical treatment and 12 (11.7%) cases.

The primary radical plaque of the abdominal wall was performed in 77 (84.6%) children and the main condition for its implementation was the level of vistercardone abdominal disproportion. Radical plastics were mainly made on small and medium size omphalotic cells.

We developed a new method for the operation of large-size omphalocele and the new abdominal wall plaque (Patent No. IAP05314 "Method for treating large-size omphalocele in newborns"). This method was used in patients with 9 (37.5%) cases with large-size omphalocele.

The technique of this technique is as follows: before the start of

operation, the babies were given stomach decompression and high bowel obstruction. Subsequently, an endotracheal anesthetist was treated with antiseptic substances on the operating surface and the rotation of the trunk sucker was done and the elements of the navigational system were processed so that the navel elements were ligated. At the same time, the primary primer abdominal wall was retained when the pituitary gland ruptured. Then, the aponeurosis of the skin and the muscles was mobilized and we cut the aponeurosis from the side to the front of the ankle, from the top to the hinge and from the lower to the symphysis. Four pages of the resulting aponeurosis were looked up at the "X" shape, which made the aponeurosis carcass on the defect, that is, the ventral hernia was created by the aponeurosis, not the skin, as in the Gross Operation. By this method, we have managed to increase the abdominal cavity and reduce the vysper-abdominal disproportion. There were only 1 (11.1%) deaths in infants with this procedure.

Totally 103 of the infected with omphalocele 32 (31%) babies died. Factors leading to the death were the presence of additional malfunctions (21 children - 66%) and severe somatic dysfunction. In all mortality cases aspiration bronchopneumonia, 11 (34.4%) early childbirth, 12 (37.5%) cases of body temperature decreased and scleremia. In addition, it has shown its significant effect on the postoperative and operative treatment process, as well as there were changes in brain during in neonatal neurosonography. The cause of death in 4 children (12.5%) was related to brain hemorrhage and swelling. It should be noted that 12 (50%) cases with 24 large-size omphalocele have been reported to have died.

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