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To the surgical treatment of the membranous form of duodenal atresia and the "annular" pancreas glands in children

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Abstract. In the structure of intestinal obstruction in children, congenital is about 15-20%. Surgical treatment of congenital intestinal obstruction is multifaceted and complex. Postoperative mortality is quite high (10-25%). Improving the methods of surgical treatment of congenital intestinal obstruction is the primary task of neonatal surgery.

Keywords: annular pancreas, brilliant-like anastomosis, membranous atresia of the duodenum.

Relevance of the work

Malformations and premature birth are major causes of childhood death, chronic disease and disability in many countries. The WHO estimates that 303,000 newborn babies die each year within 4 weeks after birth worldwide due to congenital anomalies [1]. In Kazakhstan, in the structure of infant mortality, congenital malformations take the second place (from 22.9% to 24.4%) [2]. Over the past 5 years, the number of congenital anomalies has remained stable and amounts to about 1100 cases per 100 thousand of the child population [3]. Improving surgical tactics, anesthetic management and postoperative care are important tasks to reduce mortality from this group of diseases. In recent years, there has been a steady increase in gastroenterological diseases in childhood. Parallel to this trend, the frequency of pathological conditions of the pancreas is also increasing.

The purpose of our research - improving the results of treatment of membranous form of atresia of the duodenal ulcer and annular pancreas in children.

Research results

The main clinical symptoms of duodenal obstruction were: vomiting with bile, swelling of the epigastric region, weight loss, dry skin, retraction of the fontanelle, and decreased skin turgor. On the general X-ray of the abdominal cavity and during the contrast study of the gastrointestinal tract, the "Double-bubble" syndrome was found (Fig. 1).

Preoperative preparation lasted from 12 hours to 2 days. Since 2012, we have introduced the Kimura method of duodeno-duodenoanastomosis (diamond-like anastomosis) at the clinic. A transverse incision is made in the proximal part of the duodenum 1.0 cm above the site of atresia and a longitudinal incision in the distal part of the same length, opposite the mesentery. An anastomosis is created, with a single-row suture, with the restoration of the patency of the duodenum. The duration of the operation is 40-50 minutes. The postoperative period was uneventful. All children were discharged with recovery. In the long-term period, the patients showed no complaints, did not lag behind in physical and psychological development, the passage of the intestines in children was satisfactory.

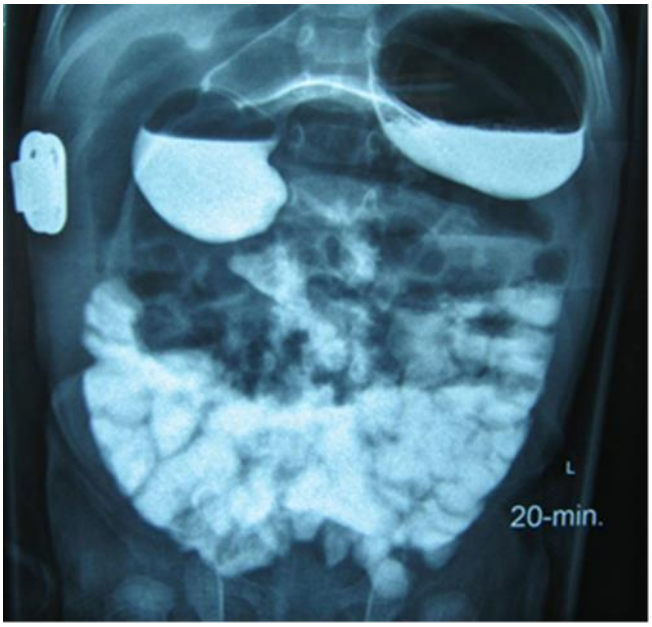

Fig. 1. Plain X-ray of the child. Defined "double-bubble" - a pathognomonic symptom of duodenal obstruction

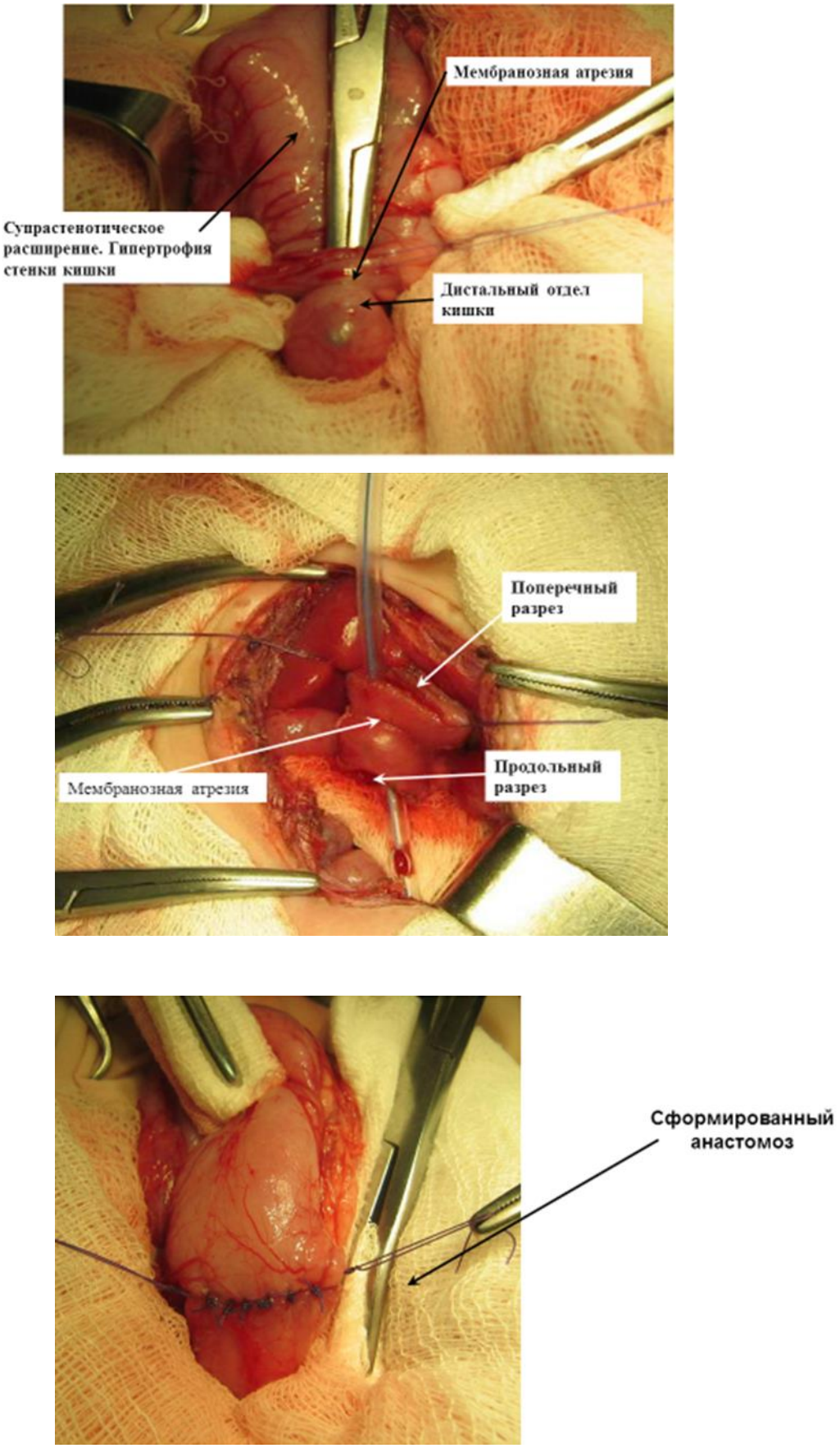

Fig. 2. Intraoperative picture. Membranous duodenal atresia

Conclusion

1. In case of congenital duodenal obstruction, the "brilliant-like anastomosis" is applied with single-row sutures, which is not technically difficult to perform.

2. Duodeno-duodenoanastomosis according to Kimura is the operation of choice for membranous atresia of the duodenum and annular pancreas.

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