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PYLORIC ATRESIA*

A Case Report

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Pyloric atresia is an extremely rare congenital malformation. The first publication of this anomaly was in 1749 by Calder and the first successful operation was described by Touroff and Susman in 1940[1]. To date, nearly 70 cases dealing with the subject have been published[2,3]. This paper adds another instance of pyloric atresia.

Case Report

A male infant with birth weight 2600 g was born to a 28-year-old mother after an uneventful pregnancy. He was brought to the University Hospital on the tenth day of life because of vomiting. According to the parents he started vomiting on the third day and bile was absent in the vomitus. He had been previously admitted to the pediatric clinic where the prediagnosis of neonatal septicemia was made. Fluid and antibiotic treatment were started. Since he kept vomiting gastric contents, and a specific epigastric distention was observed, he was transferred to the Department of Pediatric Surgery.

Physicial examination disclosed a 2500 g newborn with a weak cry and poor motor tone. Both fontanels were depressed. The upper abdomen was moderately distended. The liver was palpable two centimeters below the costal margin at the midclavicular line.

Laboratory tests revealed the presence of hypertonic dehydration. The chest radiogram was normal. On a plain abdominal radiograph gastric gas was seen to be prominent while it was absent in the other parts of the gastrointestinal tract (Fig. 1). The radiopaque material did not pass beyond the stomach (Fig. 2). An

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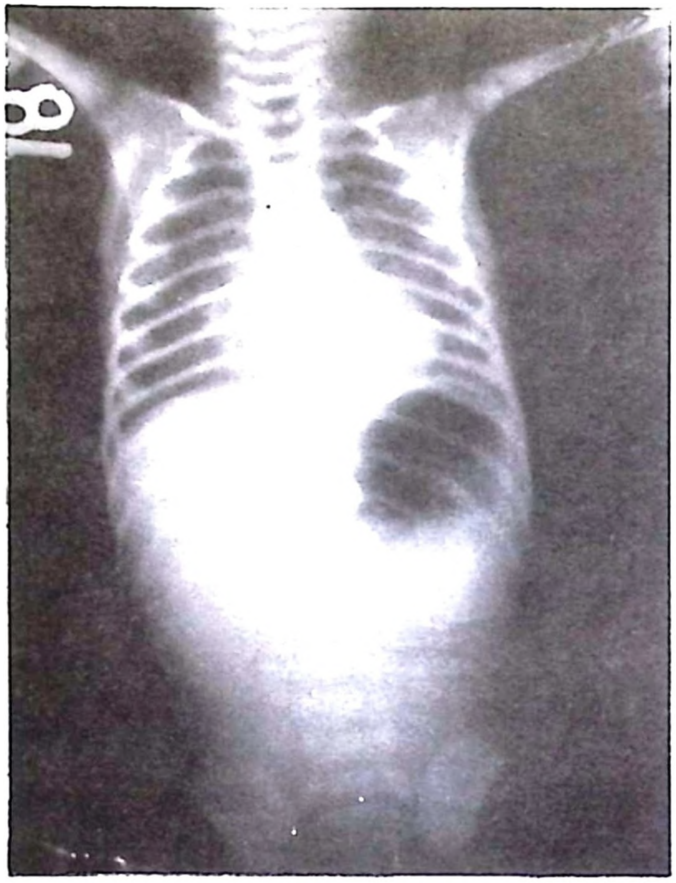

Fig. 1: Abdominal x-ray of the infant.

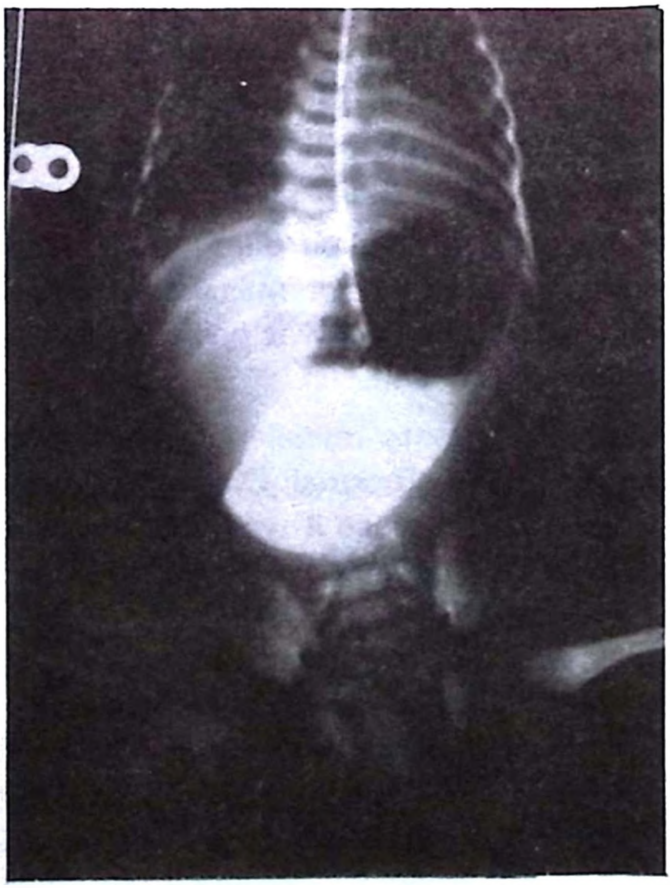

Fig. 2: Barium study of the stomach.

exploratory laparotomy revealed a distended stomach and collapsed intestines. A catheter, applied orally, could not be inserted into the pylorus. A Heineke-Mikulicz pyloroplasty incision was made and it was observed that there was a complete diaphragm in the pyloric area. The diaphragm was excised and the mucosa was sutured with a continuous 5-0 chromic cat-gut. The procedure was completed with pyloroplasty and an additional catheter was placed in the jejunum for early feeding. Jejunal feeding was started on the third postoperative day, but the infant's general condition deteriorated and he died of septicemia on the eighth postoperative day.

Discussion

Pyloric atresia accounts for nearly one percent of all intestinal atresias[4]. This malformation can be classed into three types of obstruction: complete absence of the lumen with two blind pouches, a membrane or fibrous cord connecting two separated segments, and a web or a narrowed area[3,5]. In the formation of this pathology, failure or recanalization of the intestinal tract, mechanical or vascular injury to the previously normal fetal intestine, have been mentioned[4].

Approximately half of the patients with pyloric atresia have a history of maternal hydramnios[6]. An autosomal recessive mode of inheritance and familial incidence have been reported to be associated with this anomaly[7,8]. Esophageal atresia and epidermolysis bullosa have been observed to be associated with pyloric atresia[3,9]. Delay in diagnosis may be partly due to the absence of bile in the vomitus. A bile-free vomitus and the absence of gas in the lower abdomen are helpful in the diagnosis.

In infants with a complete diaphragm or a diaphragm with an aperture, excision of the septum and approximation of the mucosa with fine continuous cat-gut sutures and pyloroplasty can be performed. If the stomach and the duodenum are completely separated, resection of the atretic segment and gastroduodenal anastomosis should be performed[10]. The prognosis is excellent with early diagnosis, proper preoperative preparation and surgical treatment. However, prognosis is poor in the presence of other congenital anomalies[11].

No other associated malformation was present in our patient. He had a complete diaphragmatic type of atresia which was treated with excision and pyloroplasty. Although the operation was a success, the final outcome was eventful due to a delay in diagnosis and septicemia.

Summary

A case of a ten-day-old newborn with complete diaphragmatic pyloric atresia is presented and the relevant literature on its etilogy, types, diagnosis and surgical treatment is discussed.

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