

PERFORATION OF AN ATYPICALLY POSITIONED DUODENAL ULCER IN A PATIENT WITH CONGENITAL FUNNEAL CHEST DEFORMITY

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Abstract

This clinical case belongs to our clinic's own practice with perforation of an acute ulcer of an atypically located duodenum, which developed against the background of congenital pectus excavatum in a young man.

Keywords: perforated ulcer, duodenum, funnel chest.

Introduction

The classification of perforated ulcers of the stomach and duodenum is widely known, in which this pathology is divided into typical and atypical [1]. Atypical include covered perforation and perforated ulcer of the posterior wall of the stomach and duodenum. The variety of shapes and positions of the duodenum is due to the varying degrees of its fixation to the abdominal wall (sometimes there is even a small mesentery in the initial part) and the mobility of the stomach, especially in combination with abnormal development of the chest and anterior part of the diaphragm, including funnel chest deformity. special difficulties in accessing the abdominal organs and performing surgical manipulations [2]. The literature available to us describes a number of rare and casuistic types of perforation of the stomach and duodenum. In this article we present our case from practice.

Clinical Case

Patient X., 18 years old, came to the emergency department of the Bukhara branch of the Republican Research Center for Emergency Medicine with complaints of severe pain throughout the abdomen, nausea, and general weakness. Sick for 10 hours. Acute pain appeared suddenly.

From the anamnesis it was clarified that the patient had been ill with peptic ulcer for several years. The pain was previously less intense, but he himself was not examined. A funnel-shaped deformity was detected in him from the moment of birth; with the growth and development of the child, the deformity deepened much more.

On examination, the patient is cachectic, thin, and asthenic in build. On the anterior surface of the chest there is a "funnel-shaped deformity" with a size of 20 x 10 cm and a depth of 4.5 cm (Fig. 1a).



Objectively: upon admission the patient's general condition is serious. Consciousness is clear. Very restless. Blood pressure 100/70 mm. rt. Art., pulse 90 beats per minute. On auscultation, heart sounds are clear and there are no murmurs. ECG without pathology. The tongue is dry. The stomach does not participate in the act of breathing. On palpation there is pain and muscle tension in all parts of the abdominal wall, the symptom of peritoneal irritation is positive.

According to the ultrasound, there is fluid in the pelvis in the amount of 150 ml. An abdominal x-ray shows free gas in the subdiaphragmatic region (Fig. 1b). According to the conclusion of FGDS, there is a perforated hole on the anterior wall of the 12 duodenum, measuring 1.0 x 1.0 cm. The laboratory test data are not significantly deviated from the norm.



Rice. 1.a. Funnel-shaped chest. **1.b.** Condensed gas under the right and left diaphragmatic domes.

The patient was diagnosed with a chronic ulcer of the duodenum, complicated by perforation of the ulcer. Peritonitis. Funnel-shaped chest.

The patient was recommended for surgical treatment. After preoperative preparation, an upper-median laparotomy was performed under general intubation anesthesia. The abdominal cavity contains a large amount of gastric and duodenal juice. Drained. During the audit, it was revealed that the stomach and the lobar part of the duodenum 12 are located atypically, retracted towards the identified funnel-shaped deformed sternum. The retracted stomach and duodenum are fused to the diaphragm by massive adhesions, which are sharply dissected and brought down towards the abdominal cavity. In this case, a perforated ulcer was found on the anterior wall of the duodenal bulb, measuring 1.3 x 1.5 cm with infiltration. The perforated defect was sutured using

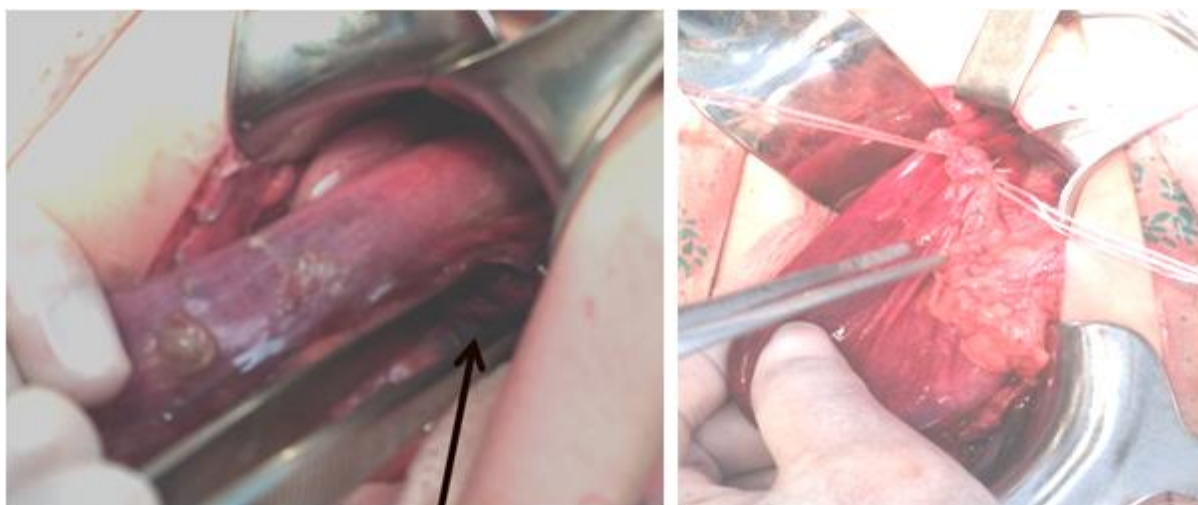
the Oppel -Polikarpov method (Fig. 2, a, b). Sanitation and drainage of the abdominal cavity.

Rice. 2 a, b. Perforation of the duodenum and suturing of the ulcer.

Postoperative diagnosis: Chronic ulcer of the duodenum, complicated by perforation of the ulcer. Diffuse peritonitis, toxic phase. Congenital funnel chest deformity.

Literary reference. Congenital pectus excavatum (PCD) is an abnormal development that was first described in 1600. VDHA belongs to the group of congenital anomalies of the chest, among which VDHA makes up 90% and carinatum deformities - 8%.

The first description of VDHA belongs to Bauhinus in 1596 (cited by Brown L., 1939). The designation “funnel chest” was introduced by Epstein in 1882, and it became international, with the first corrective operation performed in 1899 in Europe.



To date, the cause of VDHA remains unclear. Despite the large number of proposed theories, none of them provides a convincing explanation for the etiopathogenesis of VDHA. Bauhinus in 1596 developed the theory of retraction - traction in the dorsal direction of the diaphragm causes the development of this anomaly. Based on numerous observations and studies in clinical practice, we can confidently recognize the obvious fact that there is no connection between VDHA and rickets. The theory of congenital dysplasia of costal cartilages (Kondrashin N.I., 1974), excessive growth of ribs in length (Brunner A., 1954), shortening of the sternal portion of the diaphragm, underdevelopment of *lig. substernale* (Brown L., 1939). They believed that shortening of this ligament leads to retraction of the sternum during inspiration. Ravitch M., (1977), on the contrary, denies its influence on the occurrence of deformity, since funnel chest is often observed at birth.

VDHA can be combined with heart defects - in 20%, with defects of the abdominal organs and urinary systems - in 10.7 %, in addition, it is an integral part of various hereditary syndromes (Casten syndrome, Cantrell pentad, Frinze, Lange, Marfan, Ehlers syndromes -Danlos, etc.) or the manifestation of chromosomal abnormalities and gene disorders.

In our case, there was a combination of VDHA with an atypical location of the organs of the upper abdominal cavity, which caused difficulties in examining the abdominal organs, diagnosing a perforated duodenal ulcer and choosing surgical tactics. This combination is very rare.

In the postoperative period, the patient received a complex of standard drug therapy. The



patient's condition improved significantly, the wound healed by primary intention. The patient was discharged in satisfactory condition on the 11th day for outpatient treatment.

Conclusion:

Thus, the surgeon must always remember about the combination of pathology of the chest and abdominal cavity, in which there may be certain difficulties in diagnosing acute surgical pathology and the difficulty of suggesting surgical intervention.

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