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CONTENT

PANCREATIC CANCER: WHERE DO WE STAND?

Meri Trajkovska, MD, PhD
University Clinic of Gastroenterohepatology, Faculty of Medicine, "Ss. Cyril and Methodius" University, Skopje, North Macedonia

Less than 5% of patients diagnosed with pancreatic cancer (PC) survive for five years, and the average lifetime following the diagnosis is no more than 5 months. Although pancreatic cancer across Europe is on seventh place according to incidence rates with 100,000 new cases, every year, it is the third leading cause of cancer-related death, claiming the lives of 95,000 citizens per year. According to the data of European Cancer Information System, last year in our country pancreatic cancer was on the 6th place with incidence of 16.7 in 100,000 people. Despite these horrifying facts, there has been a little advancement in patient outcomes last five decades, and pancreatic cancer remains a disease which has been "staked" in the past. The silent killer shows no signs of conceding either, with the morbidity and mortality rates estimated to grow up to 40% by 2035 as stated by European Parliament Interest group on Digestive Health. Forecast is similar in United States, with projections disclosing that "pancreatic carcinoma will be the second cause of cancer related deaths by 2030".

Pancreatic cancer is hard to recognize in its initial phase, due to non-specific presenting symptoms. Although scientists are trying to come upon the molecular mechanisms leading to malignant transformation of healthy pancreatic cells and discover new biomarkers that can signify the presence of the disease in its early stage when is still treatable, in Europe pancreatic cancer research has limited funding of less than 2% of overall cancer funding. This actuality, in conjunction with the therapeutic resistance of pancreatic cancer, is the main reason of lowest survival rate among "the cancers" and steadily increasing incidence (1 – 9).

The Facts

Predominant part of pancreatic carcinoma, more than 80% are caused by sporadic mutation, and minor proportion is due to germ-line mutations in BRCA2, p16, ATM, STK11, PRSS1/PRSS2, SPINK1, PALB2. Aetiology still remains unrevealed, nonetheless, a vast majority of well-known risk factors do exist like: cigarette smoking, heavy alcohol drinking, chronic pancreatitis, diabetes (especially recent onset, or longstanding diabetes with unexplained instable hyperglycaemia), obesity (central type with BMI>30), hereditary pancreatitis and hereditary pancreatic carcinoma (having two first degree relatives with PC doubles the risk of developing cancer). Lifestyle risk factors are modifiable, which offers enormous mode of prevention, if public awareness is developed. Regarding hereditary pancreatitis/ carcinoma, genetic cancer screening is recommended by International Cancer of the Pancreas Screening (CAPS) consortium in all patients with Peutz-Jeghers syndrome, all carriers of CDKN2A mutation, carriers of a germline BRCA2, BRCA1,

death (13). Medical personnel should be qualified to know how to monitor vital signs correctly, warn for irregularities, use multiple scoring systems to predict early deterioration and intervene according to protocols. It is very important to register and to analyze all the cases, to determine all the complications due to anesthesia during the perioperative period and to make a suitable prevention and treatment strategy for future events.

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CASE REPORT UDK: 616.342-007.43-089.819

LEFT PARADUODENAL HERNIA

Petrovska T[1], Cabukovska Radulovska J[1]
[1]PHI University Clinic for Surgical Diseases "St. Naum Ohridski "-Skopje, Radilogy Department

ABSTRACT

Internal hernias are relatively rare condition and are a rare type of intestinal obstruction. Paraduodenal hernias are considered to be the most common cause of obstruction and are a challenge for diagnostics.

We present the case of a 29-years-old young man with several episodes of abdominal pain, accompanied by vomiting, which was examined in the emergency department. The patient was generally a healthy person.

Among the other examinations, a computed tomography scan of the abdomen was performed where tumor-like mass was seen between the stomach and pancreas, with characteristic CT signs of paraduodenal hernia. On CT of the abdomen with i.v. contrast medium, a mass of thin cervical vertebrae was seen in the space between the stomach and pancreas, placed in a ball with a visible hydroaeric level at the height of the ligament of Treitz. The mesentery is on the jejunum is drawn to the left.

Key Words: *abdominal pain, CT abdomen, internal hernia, paraduodenal hernia.*

Introduction

Intra-abdominal hernias are rare condition, accounting for 0.9% of all intestinal obstructions (1). The half of all internal abdominal hernias are paraduodenal hernias. They occur when part of the small intestine herniates occurs into the paraduodenal fossa and is manifested by intestinal obstruction. The herniation may occur in the paraduodenal fossa Landzert on the left or in the right paraduodenal fossa Kolb.

The Landzert paraduodenal fossa is located to the left of the 4th part of duodenum, behind v. mesenterica inferior and the ascending branch of the a. colica sin., where three edges of the hernia form directly below the posterior parietal peritoneum (3). At autopsy, this pit was found in 2% of cases. In recent examinations, paraduodenal recess was found in 12% of the cases (4).

The clinical diagnosis is difficult. We present a case of left paraduodenal hernia, in a patient admitted due to severe pain, vomiting and palpable mass in the left hypochondrium.

Case Report

A 29-years-old patient was admitted as an emergency patient with intermittent left hypochondrium pain. The patient was a frequent patient in the emergency department last year. Admission pain was associated to nausea and vomiting.

During the clinical examination, an oval palpable tumor in the left hypochondrium was found. The laboratory findings were without special deviations. Native abdominal X-rays showed no signs of ileus and no signs of pneumoperitoneum. On CT of the abdomen with iv contrast, a mass of thin cervical vertebrae was seen in the space between the stomach and pancreas, placed in a ball with a visible hydroaeric level at the height of the lig. Treitz. The mesentery was on the jejunum, drawn to the left. Free fluid in the abdomen was not monitored.

Figure 1. *Schematic presentation of a paraduodenal hernia, the small intestine prolapsing into the fossa Landzert, (curve arrow) localized behind the v. inferior mesentery a. colica sinistra (arrow).*

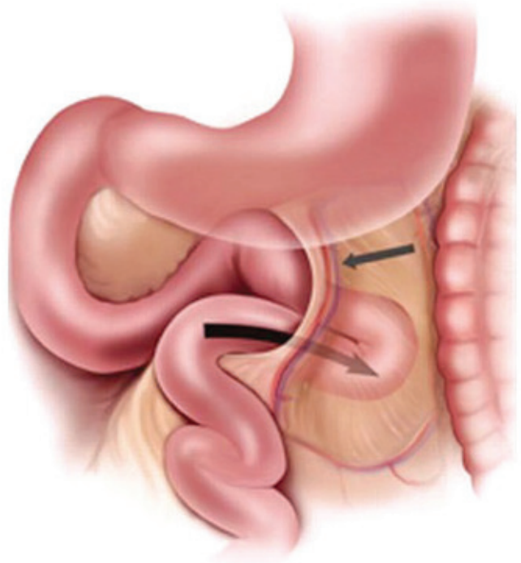


Figure2. *Plane abdominal x-ray shows intestinal loops grouped in the left hypochondrium.*

Figure 3. *Axial CT of abdomen with contrast-arterial phase follows a round mass prerenal between the stomach and pancreas that pushes the stomach forward*

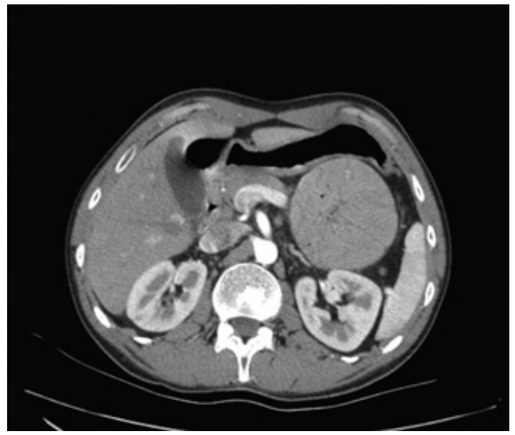


Figure 4. *Axial CT of abdomen with contrast – Mesenteric blood vessels burst to the right and front of a stagnant small intestine.*

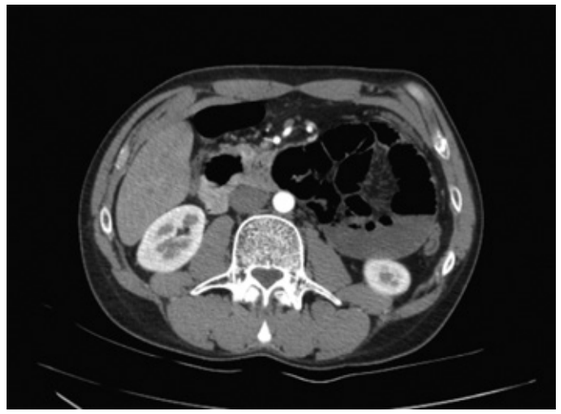
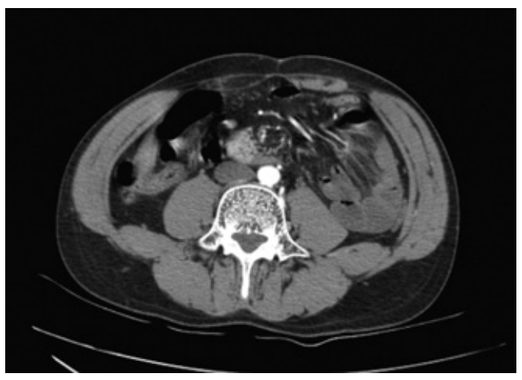


Figure 5. *Axial CT of abdomen with contrast – Branches of the mesenteric blood vessels are drawn and designated.*



After a few hours in Emergency Unit, the patient's pain was reduced, the abdomen was softened, and the patient was sent for home treatment with an indication for further monitoring of the condition.

Discussion

Internal hernias are defined as hernias formed by intestinal protrusion through a peritoneal or mesenteric opening, leading to the formation of a closed, encapsulated vein in the abdomen. This type of hernia accounts for 0.2% – 0.9% of all intestinal obstructions. The most often these hernias in 10-50% are accidental findings of surgery or autopsy.

The classification of hernias according to Hansmann and Morton, which analyzed 467 cases of hernias, are grouped into 7 groups: paraduodenal (53%), through foramen Winslowi (8%), pericecal (13%), intersigmoid (6%), transmesentric (8%), trans ometric (1-4%) or retroanastomotic (2).

According to Liew and colleagues 25 types of internal hernias are classified. Paraduodenal hernias are rare but can account for 30-50% of all internal hernias. Left-sided paraduodenal hernias are more common (75%) than right-sided (25%) (2). They are more common in men and are the most often congenital (1). It is a congenital defect that occurs due to malrotation and abnormal mesenteric adhesion (2). In the most cases, it is presented up to the 4th or 5th decade of life. The clinical picture may range from asymptomatic to acute or chronic intestinal pain, which can be emphasized after a hearty meal.

The clinical finding may range from a normal finding to a palpable mass or signs of intestinal obstruction.

Computed tomography as well as a passage with barium porridge show the site of prolapse. Preoperative diagnosis in asymptomatic patients with a paraduodenal hernia is difficult, but imaging methods can help with asymptomatic paraduodenal hernia. Out of the 45 cases reported so far, 19 have been diagnosed.

The plain x-ray of the abdomen may sometimes show signs of ileus by moving the surrounding organs from the herniated part of the bowel. CT of the abdomen is followed by a "cluster" of intestinal vesicles encapsulated in a hernia near the lig. Treitz, depression of the duodenum-jejunal junction, displacement of the mesenteric vessels to the right and elevation of the mesenteric vein, and depression of the transverse colon. Angiography is presented by displacement or curvature of blood vessels.

Laparoscopy gives a definitive diagnosis (4).

Treatment is usually laparoscopic investigation because of the risk of mesenteric vascular ischemia.

Conclusion

Paraduodenal hernias are an extremely rare and difficult condition to diagnose. Radiological methods can help diagnose these rare conditions. In the presence of acute suffering with signs of ileus, urgent surgical treatment is necessary.

The method of choice is laparoscopic surgery.

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