

Case Report

Chronic organized paraduodenal hematoma mimicking tumoral lesion managed with whipple procedure

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Abstract...

Paraduodenal hematoma (PH) mimicking an intraabdominal mass is a rare entity. We report an unusual case of PH in a 70-year-old female admitted to the hospital with postprandial left upper quadrant pain associated with nausea and dyspepsia. Blood tests were all within normal limits. Physical examination revealed minimal epigastric tenderness radiating to the left upper quadrant.

Abdominal Computed Tomography (CT) showed round, well defined tumor like lesion attached to the fourth part of duodenum without luminal narrowing. She had no history of trauma but two episodes of pancreatitis managed medically. The patient denied any coagulopathy or any endoscopic or surgical intervention in her past medical history.

The patient underwent Whipple procedure and histopathologic examination of the specimen revealed chronic organized hematoma arising from the duodenal wall clinically mimicking a tumoral mass.

Keywords: Duodenum; Hematoma; Diagnosis; Treatment.

Introduction

Although acute onset intramural duodenal hematomas are frequently reported in the literature, chronic organized paraduodenal hematoma (PH) is an uncommon pathology [1]. Cases secondary to trauma, known coagulation disorder, following endoscopic and invasive procedures and pancreatitis and more recently due to the use of oral anticoagulants have been reported as the cause of duodenal intramural hematoma [1-3]. A conservative medical treatment approach is preferred in duodenal hematoma cases with history of acute onset and no signs of hemorrhage, bowel perforation or obstruction [3,6]. Chronic organized intramural duodenal hematoma has been reported in few reports and the relation with certain medical conditions is yet to be explained [6-8].

Here in, we report a chronic organized PH mimicking malignant tumor arising from the duodenal wall treated with Whipple procedure.

Case report

A 70-year-old woman underwent laboratory, radiologic and endoscopic investigation for left hypochondralgia. She also described weight loss, dyspepsia, and postprandial discomfort in the epigastric region. Upper gastrointestinal endoscopy and laboratory measurements were all within normal limits. Abdominal CT and endoscopic ultrasonography revealed 7 cm in diameter, well circumscribed, round, tumoral lesion located at the fourth part of the duodenum, (Figure 1). All liver function tests, serum amylase levels and blood tumor markers were within normal

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limits. Her blood CA 19-9 level was slightly increased. There was no associated medical condition for the patient. There was a history of two separate pancreatitis attacks managed medically and no records of abdominal or back trauma.

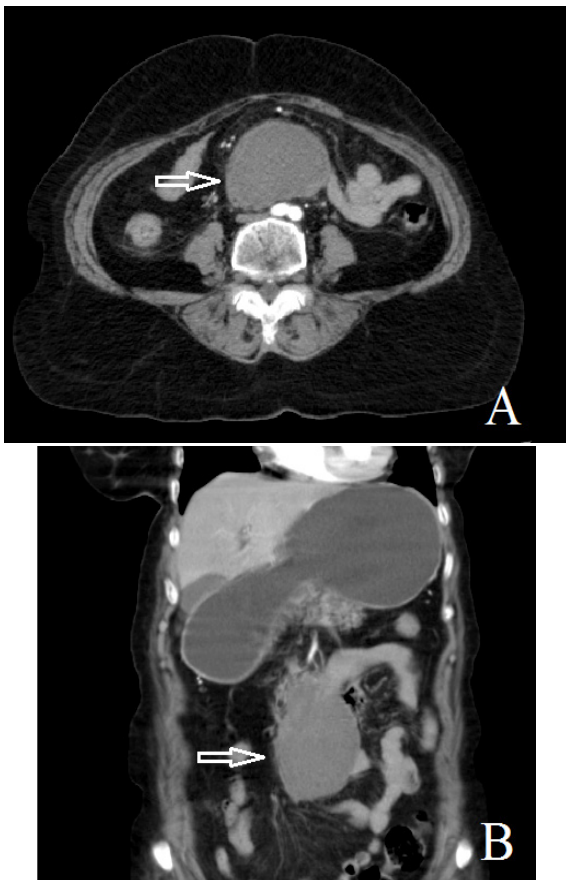


Figure 1: CT scans showing well defined, round tumoral lesion located at the fourth part of the duodenum.

A well-defined, 8-10 cm wide, rubber like lesion was visualized in the posterior wall of the distal part of the duodenum during the surgical exploration (Figure 2). The tumor was protruded from the duodenal wall and grown into the mesenteric root. Gastrointestinal stromal tumor (GIST) originated from duodenal wall was suspected during the operation. No ascites or dissemination was found in the abdominal cavity. Although the appearance of the lesion was similar to a hematoma, it was decided to perform pancreatoduodenectomy (Whipple procedure) surgery because of the lack of clinical data to suggest the diagnosis of hematoma in our patient, the large lesion, the risk of tumor spread, and the thought that biopsy might be insufficient, and finally, radiological findings indicated that it might be a tumor.



Figure 3: Picture of the resected specimen and hematoma (Arrow).

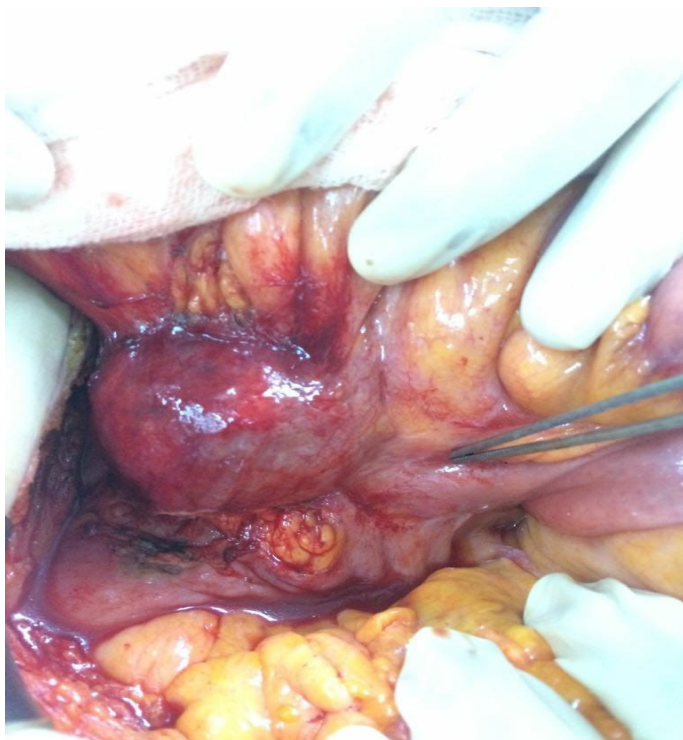


Figure 2: Intraoperative picture obtained during surgery.

The Whipple procedure was performed through the midline incision (Figure 3). The operative time was 210 minutes and the procedure was completed successfully without perioperative complications. The integrity of the tumor was carefully maintained and appropriate margins were achieved during the operation. Postoperative (PO) course of the patient was also uneventful, and she has been discharged on PO day 6.

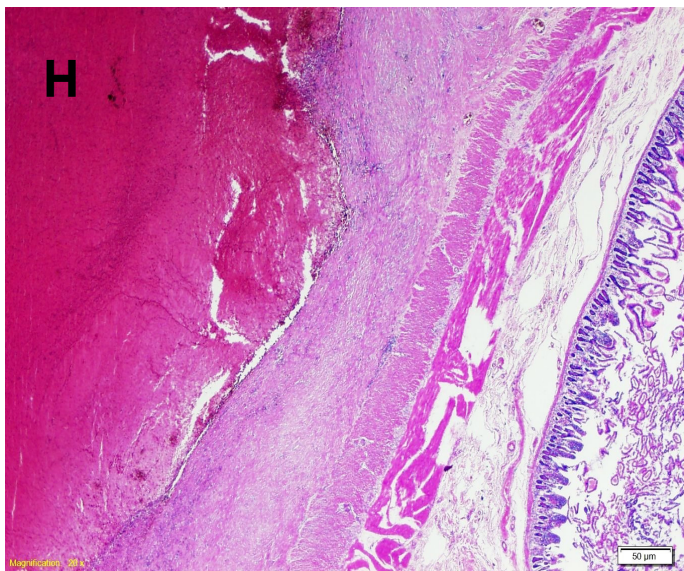


Figure 4: Histologic section shows that the organized hematoma located at the serosal layer of the duodenum, HE-2X.

The pathologic evaluation of the specimen revealed non-malignant mass which was diagnosed as organized hematoma located at the serosal layer of the duodenum, (Figure 4). The specimen was totally sectioned and thoroughly examined and again no malignancy was detected. The patient has been monitored in good health for 3 years.

Discussion

Duodenal hematoma has been first described by Mc Lachlan in 1838 [1,2]. Following his report, Sutherland published the first non-traumatic intramural duodenal hematoma in a child with Henoch-Shonlein purpura [1,6]. Intraduodenal or paraduodenal hematomas mostly occur as a result of coagulopathy, anticoagulant use, endoscopic procedures or associated with pancreatitis and pancreatic malignancy [1-3].

The most common presenting symptoms of intramural duodenal hematomas are abdominal pain and vomiting [3,4]. These patients may also present infrequently with dehydration or jaundice due to compression of the adjacent tissues by hematoma [3]. Laboratory studies have not much definitive value in diagnosis and they were also all within normal limits in our patient. Abdominal computed tomography, magnetic resonance imaging (MRI) scans and angiography are the main techniques for diagnosis of PH [3,6,7]. These techniques are excellent methods to examine the location and relation with surrounding tissues of PH. These techniques also can be preferred in reassessment of the status of the hematoma in patients managed with conservative medical treatment [6,7].

Most of the spontaneous non-traumatic PHs are located at the submucosal layer and the source of bleeding is generally small vessels of duodenal wall [3,4]. The leakage of pancreatic enzymes in pancreatitis may cause vascular erosion and subsequent hematoma formation. However the exact mechanism of pancreatic -induced duodenal hematomas is still controversial [3,5].

Abdominal CT is the most important diagnostic tool for the diagnosis of PH. CT is recommended to be repeated two weeks later in cases with suspected PH. In definitively diagnosed PH cases, treatment is medical. The treatment consists of restriction of oral intake, nasogastric aspiration, parenteral nutritional support and combating coagulopathy. Most patients recover

with medical treatment. Surgery may be required rarely in cases of obstruction, bleeding, perforation and intestinal ischemia [5].

We did not consider conservative management or minimally invasive drainage through image guided modalities in our patient. There was no significant intraluminal hemorrhage, signs of bowel perforation or ischemia in our patient and the indication for surgical intervention was paraduodenal mass. Our patient has had also no history of trauma. There was a history of two previous pancreatitis attacks in our patient but we had no direct indication that PH was a result of those attacks. The Whipple procedure may look too aggressive way to alleviate the pathology in this patient but until we were notified by pathology department, our team had no clue the lesion was actually a chronic organized hematoma.

The pathologic evaluation of the specimen revealed non-malignant mass which was diagnosed as chronic organized hematoma located at the serosal layer of the duodenum.

In our case, chronic organized hematoma perfectly mimicked tumoral lesion both during preoperative evaluation and even in the phase of surgical exploration. We recommend a careful assessment of the patient especially with prompt radiological studies to lead to accurate diagnosis in these patients.

Conclusion

Chronic organized hematoma mimicking malignant tumor of the duodenal wall is a very rare entity. Few cases have been reported in the literature about their association with certain medical conditions including pancreatitis. This rare lesion can be kept in mind for well circumscribed mass lesions of peripancreatic and paraduodenal region. The meticulous pathologic investigation of the specimen is also important for accurate diagnosis.

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