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A Case report: A Case of acute pancreatitis due to external compression of diffuse large B-CELL lymphoma mass to the pancreas

Abstract

Acute pancreatitis is a condition that can affect patients to varying degrees of severity and cause significant morbidity and mortality. Gallstones and alcohol are the most common causes of acute pancreatitis in our country and around the world. However, there are many different etiologies that may lead to acute pancreatitis. In this article, we present an 86-year-old male patient who was admitted with epigastric abdominal pain, hospitalized with the diagnosis of acute pancreatitis and acute renal failure and finally diagnosed with diffuse large B-cell lymphoma by taking biopsy from a mass that was detected in imaging. Malignancies should be considered in the etiology of acute pancreatitis in patients with advanced age.

Keywords: Acute Pancreatitis, Malignancy, Diffuse Large B Cell Lymphoma, Advanced Age

INTRODUCTION

Acute pancreatitis (AP); It is a clinical issue characterized by damage caused by enzymes in the acinar cells of the exocrine pancreas due to a pathological cause and development of local and systemic inflammation secondary to damage. Gallstones and alcohol are the most common cause of acute pancreatitis in our country and around the world. In addition; many conditions such as drugs and toxins, some viral or bacterial infections, metabolic conditions such as hypertriglyceridemia/hypercalcemia, endoscopic retrograde cholangiopancreatography (ERCP) procedure, abdominal traumas, periampullary pancreatic or extra pancreatic malignancies, autoimmunity, genetic/hereditary causes can also cause acute pancreatitis. Diffuse large B-cell lymphoma (DLBCL) is the most common histological subtype of non-Hodgkin lymphoma (NHL). Patients with DLBCL typically present with a rapidly growing symptomatic mass. The mass is usually a nodal growth in the neck or abdomen or in the mediastinum in the case of primary mediastinal large B-cell lymphoma. However, the mass lesion due to DLBCL can be found anywhere in the body.

CASE REPORT

An 85 years old male patient who is diagnosed with hypertension and chronic kidney disease was admitted because of oral intake disorder (decreased oral intake) and pain; he stated that the pain started a week ago and happened after eating; it spreads to the back in a belt-like manner from below the sternum, the pain happens after eating. In the examinations of the patient in the emergency room, the first results followed were as: amylase: 782 u/l, lipase: 1054 u/l, urea: 163 mg/dl, creatinine: 4.83 mg/dl (the patient's baseline creatinine value was 3 mg/dl). With typical abdominal pain and pancreatic enzyme elevations, the patient was hospitalized with the diagnosis of acute pancreatitis and pre-renal acute renal failure on the basis of chronic kidney disease.

The patient had no history of gallstones, alcohol use, viral and bacterial infection, trauma, previous pancreatitis attack. It was learned that chronic kidney disease in the patient developed due to polycystic kidney disease and had been present for a long time. On physical examination of the patient, results were; blood pressure 140/80 mm/hg, heart rate: 82/min, fever: 36.0 °C and respiratory rate was 14/min. The patient was conscious,

oriented and cooperative. The examination of the respiratory system and cardiovascular system was normal. In his abdominal examination, there was tenderness on deep palpation in the right upper quadrant of the abdomen and epigastric region; there was no defense and rebound, hepatomegaly and splenomegaly were not detected. Neurological examination was normal. In the patient's physical examination, there was no palpable lymphadenopathy in cervical, axillar, inguinal regions. The patient had urine output. In the patient's blood test, results were; hemoglobin: 9.7 g/dl, hematocrit: 30%, MCV (mean erythrocyte volume): 91 fL, platelets: 380,000, urea:163 mg/dl, creatinine: 4.83 mg/dl, Na:141 mmol/L, K:5.6 mmol/L, sedimentation:52 mm/h, CRP (c-reactive protein):1.0 mg/l, ALT(Alanine aminotransferase):8 U/L, AST(Aspartate Aminotransferase):17, LDH(lactate dehydrogenase):533 U/L, albumin:30.6 g/L, calcium:8.8 mg/dl, triglyceride:102 mg/dl, pH in arterial blood gas: 7.28, pCO₂: 31 HCO₃: 15.8, lactate: 11 mg/dl.

In the patient's abdominal ultrasonography (USG); An anechoic cyst of approximately 15 mm in diameter in the left lobe of the liver, and a mass lesion of approximately 5x5 cm in diameter in the hepatic hilum, with hypoechoic lobulated contours, compressing the vena cava were observed. The thickness of the gallbladder wall increased diffusely and bile sludge and millimetric stones were observed in the lumen of the gallbladder, but the common bile duct was in normal width and the pancreas was also normal. Spleen sizes were natural. In the abdominal computed tomography (CT) imaging of the patient, a 2 cm hypodense lesion was observed in the left lobe of the liver (Figure 1, Figure 2).

Thereupon, interventional radiology was consulted for biopsy of the detected mass in the patient, and dynamic-diffusion magnetic resonance imaging (MRI) of the abdomen was performed for detailed evaluation before the biopsy procedure. In MR imaging, the liver was in an average size and its contours showed an undulant course. A mass lesion that is located adjacent to the liver at the level of segment 4B in the left lobe of the liver was observed in the medial part, which slightly pushed the celiac trunk to the left lateral, enveloping the inferior vena cava anteriorly, left laterally and posteriorly, and without any interphase with the liver parenchyma. The defined mass lesion reached the dimensions of approximately 7.2x5 cm in the axial plane, and the long axis of the lesion reached 8 cm. Although the intra/extra-axial distinction was made well for the defined lesion, the findings suggested that it was primarily located extra axially. In dynamic series, when contrast agent was applied, intense homogeneous contrast enhancement was observed in the lesion, which was considered to be conglomerated lymphadenopathy, significant diffusion restriction in favor of malignancy was observed. Although the pancreas was slightly pushed to the left, no focal lesions were observed in the pancreatic head, body and tail parenchyma(Figure 3).

In the light of current imaging studies, a thick needle biopsy (trucut biopsy) was performed from the mass detected in the patient.

The biopsy result was reported as non-Hodgkin lymphoma consistent with diffuse large B cell. As a result; The patient, who was admitted to the internal medicine service with the diagnosis of acute pancreatitis, was diagnosed with diffuse large B-cell lymphoma tissue by biopsy from the mass detected in his imaging, and the patient was referred to the oncology clinic.



Figure 1. Abdomen CT Image of the Case in Axial Plan



Figure 2. Abdomen CT Image of the Case In coronal plane

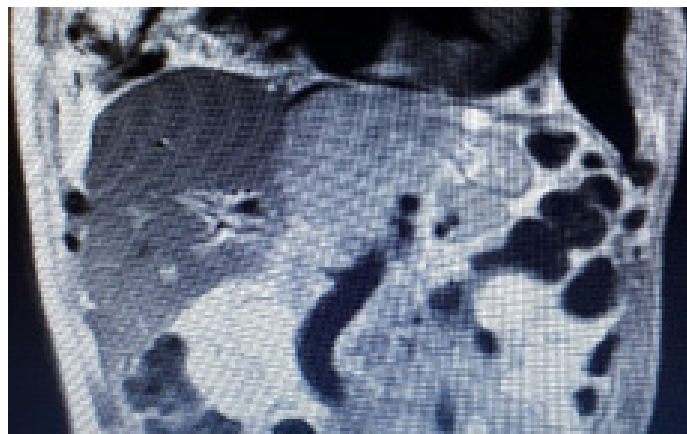


Figure 3. Abdomen MR Image of Case in Coronal Plan

DISCUSSION

Acute pancreatitis (AP) is a clinical issue that can have many different etiologies and progresses with local and/or systemic symptoms and signs due to a pathological cause and local and systemic inflammation develops secondary to this. Patients with AP typically present with middle epigastric and/or right upper quadrant pain; The character of the pain is generally continuous, knife-like and spreading to the back or sides. The diagnosis of AP is made by the presence of at least two of the following criteria: stereotypical abdominal pain, serum amylase and/or lipase values greater than three times the upper limit of normal, characteristic findings on abdominal imaging (1). Although there were no signs of pancreatic inflammation in our patient's imaging, he was diagnosed with AP because he had typical abdominal pain and amylase and lipase elevations more than three times the upper limit of normal.

In addition to the diagnosis of AP, the patient with pre-renal acute renal failure, which had elevated urea-creatinine and developed on the basis of chronic kidney disease, was treated and followed up. During the patient's follow-up, his clinic improved, amylase and lipase levels decreased, and baseline values of urea creatinine levels decreased.

Gallstones and alcohol are the most common causes of acute pancreatitis in our country and the world. Therefore, transabdominal ultrasonography (TAUS) and alcohol use history should be questioned in all patients with AP (2,3). When the patient in our case was questioned, there was no history of gallstones and alcohol. Although the thickness of the gallbladder wall increased diffusely and bile sludge and millimetric stones were observed in the lumen of the gallbladder in the transabdominal USG of our patient, due to the average width of the common bile duct, the normal appearance of the pancreas and the mass described in the liver hilum, gallstones were not considered in the foreground in the etiology, and the mass described in the patient became the primary aspect for diagnosis. Although rare, a pancreatic tumor or cystic neoplasm should be considered as a cause of AP in patients over 40 years of age without an obvious etiology (4,5). Because the patient in our case was of advanced age and normochromic normocytic anemia and increased sedimentation were found in blood tests, it was thought that the mass in the patient's scanning that pushed the pancreas slightly to the left might be malignant.

Diffuse large B-cell lymphoma (DLBCL) is the most common histological subtype of non-Hodgkin lymphoma (NHL), accounting for approximately 25% of NHL cases (6,7). Patients with DLBCL typically present with a rapidly growing symptomatic mass. The mass is usually a nodal growth in the neck or abdomen, or in the mediastinum in the case of primary mediastinal large B-cell lymphoma. However, the mass lesion due to DLBCL can be found anywhere in the body.

The fact that the mass detected in our patient had an image similar to conglomerate lymphadenopathy and no focal lesion

was observed in the pancreatic trunk and tail parenchyma, suggested that the mass may not be a malignancy of pancreatic or liver origin but may be an NHL presenting with lymph node enlargement in the abdominal region. For tissue diagnosis of DLBCL, an excisional or incisional biopsy of lymph nodes, tru-cut biopsy, or fine-needle aspiration (FNA) can be performed. Excisional biopsy should always be preferred to tru-cut biopsy for diagnosis (8). Although we suspected a possible lymphoma when the biopsy was planned to make a definitive diagnosis in our patient, tru-cut biopsy sampling was performed from the mass, as the morphology and localization of the mass in the patient were not suitable for excisional biopsy. The biopsy result of the patient was reported as non-Hodgkin lymphoma consistent with diffuse large B cell.

As a result; In our case, an 86-year-old male patient who presented with epigastric abdominal pain was hospitalized with the diagnosis of acute pancreatitis and pre-renal acute renal failure, and he was diagnosed with diffuse large B-cell lymphoma after a biopsy from the mass that found in the imaging studies. It was considered that acute pancreatitis developed due to the compression of the pancreas and local irritation caused by the mass. In this case report, we wanted to draw attention to the fact that acute pancreatitis should be kept in mind, which may develop due to a malignancy itself or compression of the pancreas, in advanced age patients, whose medical history and laboratory examinations do not have a clear cause that may lead to acute pancreatitis.

Conflict of interests

The authors declare that they have no competing interests.

Financial Disclosure

All authors declare no financial support.

Informed Consent

Written consent was obtained from the patient and his parents..

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