

Secondary T-cell Pancreatic Lymphoma Mimicking Acute Pancreatitis

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INTRODUCTION

Anaplastic large cell lymphoma (ALCL) is a highly malignant non-Hodgkin's T-cell lymphoma (NHL), and it accounts for 2–8 per cent of all lymphomas (1). Here, we report a case of secondary pancreatic anaplastic large cell lymphoma which presented as acute pancreatitis. After an extensive review of the published literature on PubMed, there was only one case of secondary T-cell pancreatic lymphoma that presented as acute pancreatitis. Our case appears to be the second one.

Keywords: Acute pancreatitis, anaplastic large cell lymphoma, secondary pancreatic lymphoma

CASE REPORT

A 24-year old male was admitted to hospital for recurrent epigastric pain for more than 10 days. Routine physical examination revealed temperature fluctuations from 36.2 °C to 39.5 °C, tenderness in the epigastrium, without rebound. Laboratory test showed total leukocyte count of $15\,800\ \mu\text{l}^{-1}$, with neutrophils 81.4%. Urinary amylase was 2293 U/L (normal range 0–1000 U/L), and serum amylase level was normal. C-reactive protein (CRP) was 386.90 mg/L (normal range 0–8 mg/L). Abdominal enhanced computed tomography (CT) revealed acute pancreatitis with peripancreatic fluid and splenomegaly (Fig. 1). According to the patient's clinical manifestation, the



Fig. 1: Abdominal enhanced computed tomography (CT) revealed acute pancreatitis with peripancreatic fluid and splenomegaly. There was no expansion of the pancreatic duct and significant enlargement of retroperitoneal lymph nodes.

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diagnosis was considered as acute pancreatitis and the patient was treated accordingly. However, twenty-four days later, the patient underwent laparotomy for upper gastrointestinal bleeding. At surgery, a tumour originating from the retroperitoneum had invaded the stomach and pancreas. Histology of the mass revealed malignant lymphoma (Fig. 2). Immunohistochemistry revealed anaplastic large cell lymphoma (Fig. 3).

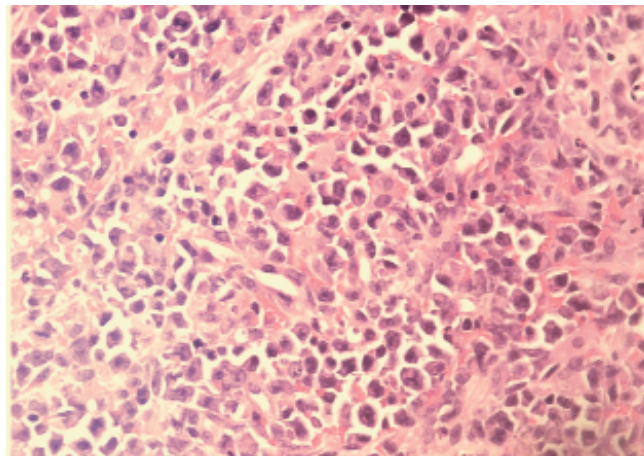


Fig. 2: Biopsy of the stomach mass revealed malignant lymphoma (HE stain, $\times 400$).

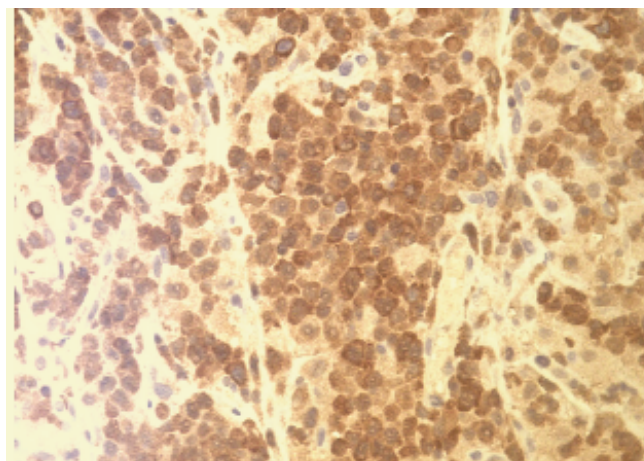


Fig. 3: Immunohistochemical stain (ALK stain, $\times 400$) revealed anaplastic large cell lymphoma: CK(-), SYN(-), CEA(-), CGA(-), CK19(-), DES(-), CD10(-), CD20(-), CD79a(-), CD138(-), BCL6(-), CD2(-), CD4(-), CD7(-), CD56(\pm), CD3(less+), CD5(less+), CD43(+), CD30(+), ALK(+), LCA(+), KI67(60%).

DISCUSSION

It is reported that approximately 0.2%–2% of patients with NHL involved the pancreas (2). Symptoms of pancreatic lymphoma are usually nonspecific (3), including abdominal pain (83%), abdominal mass (58%), weight loss (50%), jaundice (37%), acute pancreatitis (12%), small bowel obstruction (12%) and diarrhoea (12%).

Imaging plays a key role in the diagnosis of a pancreatic mass. Merkle *et al* (4) reported that when a pancreatic tumour is not associated with a significant expansion of the main pancreatic duct, the diagnosis was most likely a pancreatic lymphoma. Tucek *et al* (5) found that the diameter of pancreatic lymphoma was usually more than 6 cm and even more than 10 cm. Ward *et al* (6) also confirmed this finding; the diameter of pancreatic cancer was generally smaller than 6 cm and rarely more than 10 cm. In our case, the patient's tumour size was about 7.6 – 13 cm and the main pancreatic duct was not expanded, so the diagnosis was considered as pancreatic lymphoma. In adults, pancreatic diseases are generally assessed by CT. Due to the large amount of radiation from CT, it is reported that magnetic resonance (MR) is an alternative option to evaluate pancreatic disease in children (7).

When clinical manifestations and imaging tests cannot distinguish the nature of a pancreatic mass, pathological examination may help. Ultrasound-guided or CT-guided fine-needle aspiration (FNA) biopsy cannot only distinguish carcinoma from lymphoma but also establish a lymphoma phenotype (8). O'Toole *et al* (9) reported that the complication rate of ultrasound-guided FNA biopsy was as low as 1.6%, suggesting that is a safe and reliable diagnostic method. More importantly, the FNA biopsy can help to avoid unnecessary surgery. Though, in some cases, it is difficult to obtain enough specimens by FNA to perform immunohistochemical analysis and it may lead to a false-negative result (10). With the refinement in immunohistochemical techniques, the FNA biopsy's positive rates will gradually increase, and it may become a preferred screening method (11).

Imaging plays a key role in differentiating the property of a pancreatic mass. And if clinical manifestations and imaging tests cannot help to distinguish the nature of a pancreatic mass, pathological examination may help to establish early diagnosis and avoid unnecessary surgery.

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