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CASE REPORT

An uncommon presentation of gastric lymphoma in young male patient: mimicking acute necrotizing pancreatitis clinically and on blood investigations

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Abstract

Primary gastric lymphoma is considered most common primary type of extra-nodal non-Hodgkin's lymphoma and constitutes approx. 5% of total gastric malignancy. As the clinical symptoms of gastric lymphomas are nonspecific, diagnosis of gastric lymphoma is often difficult clinically. This case report presents a case of non-Hodgkin lymphoma which presents clinically and on blood investigations as acute necrotizing pancreatitis. This case is being prepared in view of its rarity and also to alert the treating physicians to consider underlying gastric lymphoma as an uncommon cause in some unexplained cases of pancreatitis.

Keywords: Gastric lymphoma, Pancreatitis, Non-Hodgkin lymphoma, Diffuse large B-cell lymphoma.

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Introduction

The incidence of lymphoma is on the rise in the last few decades [1]. The increase was observed especially in the extranodal variety of lymphomas [2]. Extranodal lymphoma cases are mostly the non-Hodgkin lymphoma (NHL) of the central nervous system followed by the gastrointestinal and skin lymphomas [3].

Stomach remains the most common extranodal site for non-Hodgkin lymphoma in gastrointestinal tract [4]. Overall, primary gastric lymphoma (PGL) is a n uncommon tumor occurring in 4% to 20% of total NHLs and approximately 5 percent of all primary stomach tumors. PGLs usually occur in patients over 50 years of age, but PGLs can also occur in patients younger than 50 years of age, in which the patients in 20s are also relatively commonly affected. Men are 2 to 3 times more commonly affected then female. Most of the primary gastric lymphomas are B-cell disease; a few are Hodgkin and T cell lymphomas [5].

Marginal zone B-cell lymphoma of mucosa associated lymphoid tissue (MALT) type of lymphoma is seen in approx. 38% of patients of primary gastric lymphomas, while diffuse large B-cell lymphoma (DLBCL) is present in 59% of patients. Other varieties, such as mantle cell lymphoma etc. occur less frequently.

Case Report

A 28-year-old male patient working as executive came to the Emergency Room with chief complaints of non-bilious vomiting, periumbilical abdominal pain and episodic fever from last 5 days. There is history of 3-4 kg weight loss in last month. No history of jaundice or diarrhea or malena. His vomiting was more when patient is in supine position and has been increasing in frequency. The patient denied history of alcohol or smoking abuse. There was no history of any prior surgery or procedure.

On examination it was revealed that he has mild fever (100.8°F). The fever is not associated with chills and rigors. Blood pressure was 124/84 mmHg, pulse rate of 105 beats per minute – slightly raised, and respiratory rate of 20 breaths/min. There was no pallor, icterus, lymphadenopathy, clubbing or cyanosis. Examination of other system did not reveal any abnormality.

His hemogram revealed slight elevation of WBC count (10500 per cumm), however rest of the hemogram, liver profile including SGPT, SGOT, bilirubin and thyroid function tests were absolutely normal. C-reactive protein (75 mg/L) and serum LDH were significantly raised. His serum lipase was significantly raised (800 U/L) and hence clinical diagnosis of pancreatitis was made. Rest of the blood investigations including RFT, Dengue profile and Typhoid profile was unremarkable.

Subsequently USG of Abdomen was performed, it showed large heterogeneously hypoechoic lesion in lesser sac area abutting stomach and liver with head and body part of pancreas not seen separately from the lesion. Tail region of pancreas was normal. There was intraluminal sludge in gall bladder. Right sided pleural effusion and mild ascites were present with areas of echogenic mesentery. Liver was normal otherwise, no evidence of any obvious extension or any other focal lesion was there. Gall bladder did not reveal any pathology. IHBR and CBD were non-dilated, no evidence of any calculus in common bile duct. Hence possibilities like pancreatic mass, acute necrotizing pancreatitis and large lymphnodal mass were suspected on USG. However with correlation of clinical, laboratory and USG findings primary diagnosis of acute necrotizing pancreatitis was made by clinician (Figure 1).

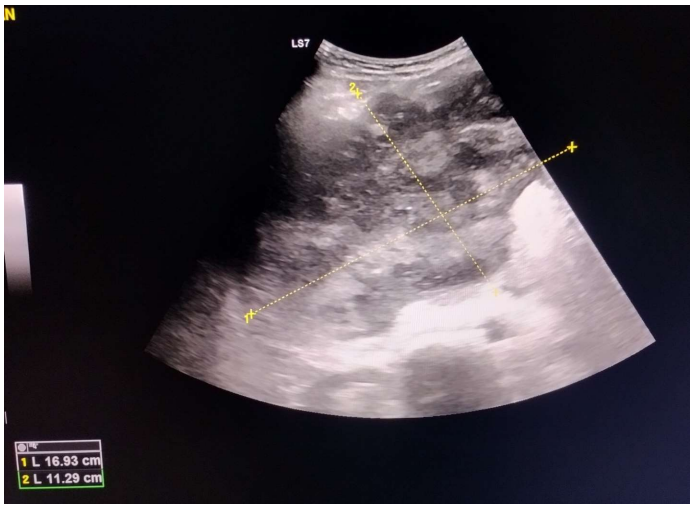
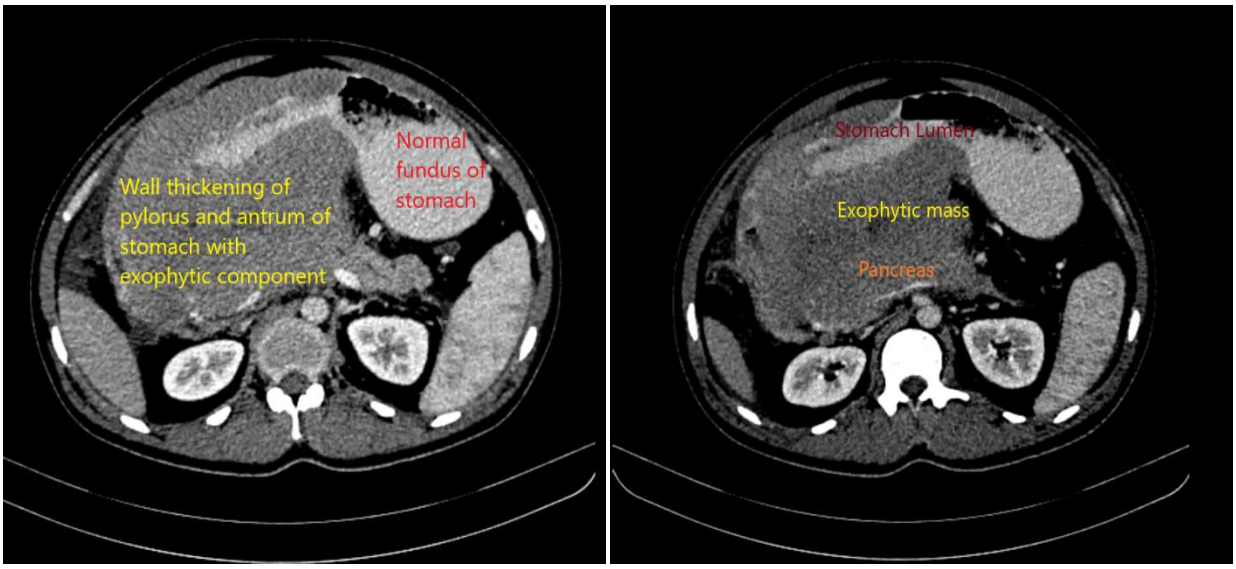


Figure 1. USG image showing heterogeneously hypoechoic mass lesion in lesser sac area, pancreas cannot be differentiated from lesion

After 2 days CT scan with contrast was performed, it showed gross thickening of wall of body and pylorus of stomach causing mild luminal narrowing. It showed significant exophytic extension, more towards posterior side with significant contrast enhancement. Soft tissue mass was indistinguishable from body of pancreas. Severe stretching of common hepatic and splenic arteries were noted at origin. Left gastric artery was supplying the mass and completely encased by it and markedly enlarged. Mesenteric engorgement was present. Mild ascites and right pleural effusion also seen. The findings are suggestive of gastric lymphoma with exophytic extensions (Figure 2).



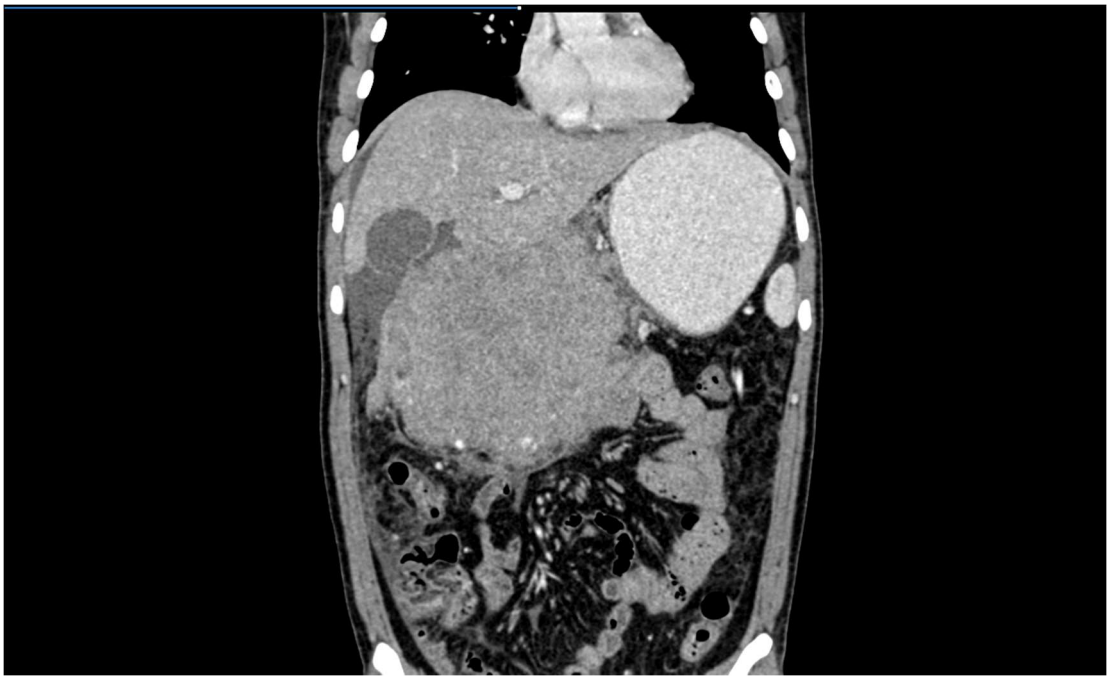


Figure 2. Post-contrast CT axial and coronal Image showing circumferential slightly irregular wall thickening of stomach with large exophytic component, loss of fat plane can be seen with head and body of pancreas. Fundus of stomach and tail of pancreas is normal

Hence upper GI scopy and biopsy were performed, which revealed high grade diffuse large B-cell lymphoma (DLBCL) on HPE. PET study was done subsequently which did not reveal any other lymph nodal mass or any other metastatic pathology. However, there was significant uptake of radiotracer in the lesion in PET study.

Discussion

Primary gastric lymphoma has vague and unpredictable clinical presentations and often presents with nonspecific abdominal pain or dyspepsia. Symptoms like fever, night sweats, weight loss may or may not be present. As clinically it is often difficult to predict, imaging or scopy remains the mainstay for diagnosis. As our patient presented with clinical features mimicking pancreatitis with significantly elevated lipase levels, it prompted for CT abdomen that showed diffuse stomach wall thickening with large exophytic component obliterating head and body of pancreas accounting for features of pancreatitis clinically.

Acute pancreatitis as a complication of pancreatic adenocarcinoma is much common. It is mostly due to obliteration of pancreatic duct by the tumor, tumor microembolisation causing ischemia, tumor related hypercalcemia etc. There are only few reported cases in literature of acute pancreatitis as initial presentation of pancreatic lymphoma or nodal non Hodgkin lymphoma [6]. Endoscopic ultrasound is another modality which is helpful in assessing such cases with regards to better assessment, higher sensitivity as well as reduced possibility of seeding the tumor while doing needle cytology [7]. Symptoms of primary gastric lymphoma are often nonspecific until and unless it exerts mass effects on adjacent structures like pancreatic duct, common bile duct

or even duodenum, so diagnosis is often delayed and management become difficult.

Presentation as acute pancreatitis of primary gastric lymphoma is much less common, infact only few cases has been noted in the literatures. In our case, features of pancreatitis could be due to pancreatic side duct obliteration by direct extension or compression which cannot be identified on USG or even CT scan. Absence of significant peri-pancreatic fat stranding and any obvious intra-pancreatic collection rules out primary pathology of pancreas to major extent. CT scan abdomen is not routinely done in patients with pancreatitis unless there is uncertainty in diagnosis or any developing or established complications. However, significant index of suspicion is needed to look for uncommon causes like we have in our case.

Conclusion

Acute pancreatitis can become an uncommon presentation of primary gastric lymphoma (high grade DLBCL in our case) and in that case appropriate detailed evaluation can make much earlier diagnosis of primary pathology and hence early management as in our case. Therefore, in some unexplained cases of pancreatitis suspicion of primary gastric lymphoma should be kept in mind.

Conflict of interest

The authors do not have any potential conflict of interest

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