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Case report

Primary diffuse large b-cell lymphoma of the stomach presenting as acute pancreatitis

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Primary diffuse large b-cell lymphoma of the stomach presenting as acute pancreatitis

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Abstract

The stomach is the extra nodal site most commonly involved by non-Hodgkin lymphomas. Diffuse large B-cell lymphoma is the most common histotype category arising in this organ. Lymphoma revealed by pancreatitis is rare. We report a case of gastric primary diffuse large B lymphoma presenting as acute pancreatitis. A 45-year-old man with recent diabetes presented at emergency for epigastric pain and vomiting. On evaluation, acute pancreatitis was diagnosed. CT scan revealed a gastric mass infiltrating the pancreas with ganglionic metastasis. Upper endoscopy revealed an ulcerated mass in the stomach, and the biopsies showed a diffuse large B-cell lymphoma. The patient developed upper gastrointestinal bleeding leading to death before Rituximab-Cyclophosphamide+Doxorubicin+Vincristine+

Prednisolone (R-CHOP) chemotherapy begins. In our case, pancreatitis was the initial presentation of primary gastric lymphoma. However, a good and timely evaluation can be effective in early diagnosis and successful treatment.

Introduction

Primary gastric lymphoma presents 1-5% of all gastric malignancies diseases, and it´s the most frequent type of extranodal lymphoma [1]. Diffuse Large B Cell Lymphoma (DLBCL) presents 31% of all non-Hodgkin´s Lymphoma (NHL) [2]. Clinical presentations are nonspecific; such as abdominal pain, dyspepsia or appearance of diabetes, and diagnosis is often delayed [3]. Pancreatic tumors like adenocarcinoma, pancreatic lymphoma, and metastases have been implicated in the etiologies of acute pancreatitis [4]. We describe a case of gastric primary diffuse large B lymphoma presenting as acute pancreatitis.

Patient and observation

A 45-year-old man with recent diabetes presented at emergency with epigastric pain and vomiting. There was no history of biliary colic or abdominal trauma. Patient reports recent weight loss a deterioration of the general setting. His pulse rate was 98/min, blood pressure 110/80 mmHg, respiratory rate 18/min, temperature 98.4°F (36.9°C). The patient presented a pallor without icterus and peripheral edema. The abdominal examination showed a mass in the epigastrium tender on palpation. The rest of the examination was normal. He was initially treated as acute pancreatitis based on elevated levels of lipase (1593 U/L) and CRP. The renal function, serum calcium and triglycerides levels, hemogram and liver function tests were normal. Abdominal ultrasound showed a heterogeneous mass in the region of the head and the body of the pancreas. Gallbladder, common bile duct, pancreatic duct and liver were normal. After initial stabilization, abdominal CT scan was done after 72h. It revealed a gastric mass (17 mm) infiltrating the head and the body of the pancreas with ganglionic metastasis. The carbohydrate antigen 19-9 (CA 19-9) level was normal. Upper endoscopy showed an ulcerated mass in the proximal and distal stomach (Figure 1). Biopsies of the gastric mass revealed diffuse large lymphoid cells (Figure 2). Immunohistochemistry confirmed the diffused large B cell lymphoma with CD20 (++ +), (Figure 3). Bone marrow cytological examination showed a marrow infiltrated with 5% of large cell B cells. The patient was ready to be transferred to the clinical hematology for chemotherapy. A therapeutic regimen of R-CHOP (*Rituximab+cyclophosphamide+doxorubicin+Vincristine+prednisolone*) was developed for him. Subsequently, the patient developed a massive upper gastrointestinal bleeding leading to death before the start of treatment.

Discussion

Gastric lymphoma presents 1% to 5% of all gastrointestinal malignancies and 40% of extranodal NHL [5]. Biopsies of the lesion and immunohistochemistry analysis are mandatory. A few cases of pancreatitis revealed by B-cell lymphoma had been reported [6]. Abdominal pain and dyspepsia are the most common symptoms of primary gastric lymphoma. The pancreatic duct infiltration by the tumor leads to acute pancreatitis. Cytokines and hypercalcemia released from the tumor can produce pancreatitis [7]. The treatment of DLBCL should be urgently. It relies mainly on R-CHOP chemotherapy, combining *rituximab* with CHOP (*doxorubicin, cyclophosphamide, vincristine, prednisone*) for 6 or 8 cycles every 3 weeks with systematic eradication of H. pylori to treat small cell proliferation of associated Mucosa-Associated Lymphoid (MALT) type. It has been demonstrated in ganglionic lymphomas but not in gastric lymphoma, that the combination of *rituximab* with chemotherapy ("*R-CHOP*" protocol) leads to superior survival compared to CHOP alone. In the case of a relapse, autologous stem cell transplantation is the only chance of cure for patients under 60 years old. For these patients, allograft results are promising [8]. Upper

endoscopy after three courses will be done to judge the efficacy of the treatment [9]. Clinical monitoring is essential every 3 months during the first year, then every 6 months the second year, then 1 time per year with clinical examination, endoscopy, and LDH level. The time of follow-up is around 5-10 years. No imaging or CT scan or Fluorodeoxyglucose - Positron Emission Tomography (*FDG-PET*) scan is recommended. The optimal frequency of endoscopic controls is undetermined [10].

Conclusion

In our case, pancreatitis was the initial presentation of primary gastric lymphoma, however, a good and timely evaluation can be effective in early diagnosis and successful treatment.

Competing interests

The authors declare no competing interests.

Authors' contributions

All the authors have read and agreed to the final manuscript.

Figures

Figure 1: upper endoscopy revealed a tumor in the fundus and antrum with bleeding

Figure 2: histology revealed gastric infiltration by large atypical lymphoid cells

Figure 3: immunohistochemistry confirmed the diagnosis of diffuse large B cell lymphoma by the positivity of CD20 (+++)

References

1. Ghai S, Pattison J, Ghai S, O Malley ME, Khalili K, Stephens M. Primary gastrointestinal lymphoma: spectrum of imaging findings with pathologic correlation. Radiographics. 2007;27(5): 1371-88. **PubMed**| **Google Scholar**
2. Hwang JE, Park CH, Cho YC. A case of primary pancreatic lymphoma that manifested with acute pancreatitis and obstructive jaundice. Gastroenterol Hepatol 2009;38(3): 176-179. **Google Scholar**
3. Bernardeau M, Auroux J, Cavicchi M *et al*. Secondary Pancreatic Involvement by Diffuse large b-cell lymphoma presenting as acute pancreatitis: treatment and outcome. Pancreatology. 2002 Jan;2(4): 427-30. **PubMed**| **Google Scholar**
4. Kim JK, Chung JS, Shin HJ, Song MK, Yi JW, Shin DH *et al*. Influence of NK cell count on the survival of patients with diffuse large B-cell lymphoma treated with R-CHOP. Blood Res. 2014;49(3): 162-9. **PubMed**| **Google Scholar**
5. Mansour R, Beattie M, Miller J, Haus C. Diffuse large b-cell lymphoma mimicking an ulcerative colitis flare: ACG Case Reports Journal. 2019 Mar;6(3): e00031. **PubMed**
6. Xianguang Huang, Guangyao Wu, Xiaohong Cen, Zongquan Wen, Xiaodong Lin, Songhu Li, Fu Zhang, Shaoping Yu. A case report of diffuse large B cell lymphoma presenting as acute pancreatitis. Biomedical Research. 2018;28(22): 9845-9848. **Google Scholar**
7. Mithun Raj, Ghoshal UC, Choudhuri G, Mohindra S. Primary gastric lymphoma presenting as acute pancreatitis: a Case Report. JOP. 2013 July 10;14(4): 463-465. **PubMed**| **Google Scholar**
8. Bonnet C, De Prijck B, Lejeune M, Fassotte MF, Van Den Neste E *et al*. Prise en charge du lymphome B diffus à grandes cellules en 2012. Rev Med Suisse 2012;(8): 1582-1590. **Google Scholar**

9. Ruskoné-Fourmestraux A. Le lymphome gastrique. Hématologie. 2013 Jan;19(1): 78-83. **Google Scholar**

10. Ruskoné-Fourmestraux, Anne Lavergne-Slove, Alain Delme. Lymphomes gastro-intestinaux. Gastroentérologie Clinique et Biologique. 2002;26(3): 233-241. **Google Scholar**

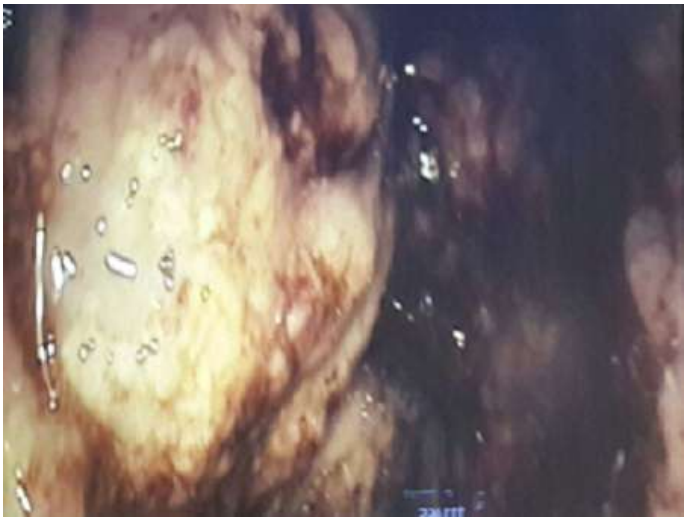

Figure 1: upper endoscopy revealed a tumor in the fundus and antrum with bleeding

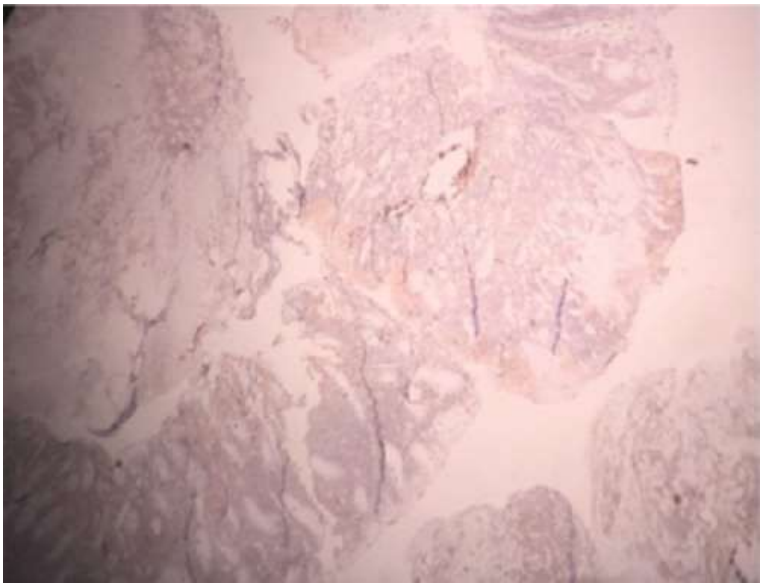

Figure 2: histology revealed gastric infiltration by large atypical lymphoid cells

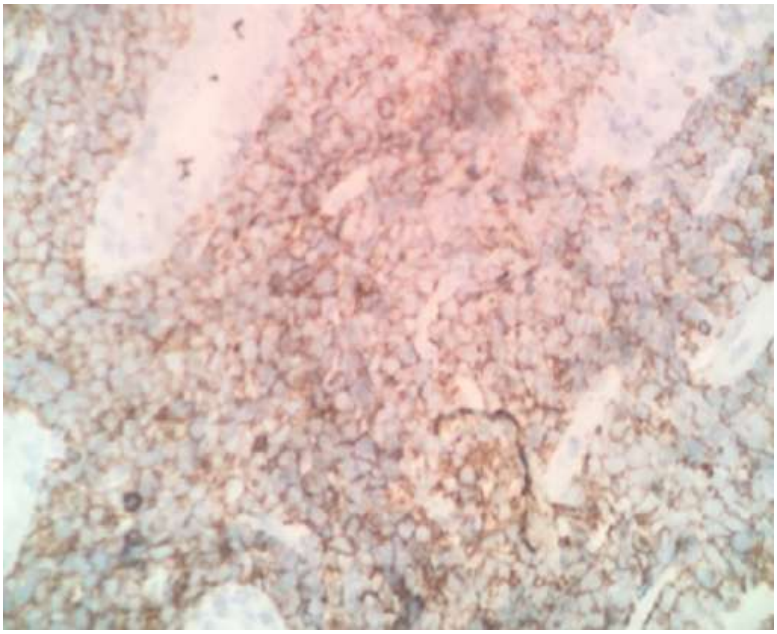

Figure 3: immunohistochemistry confirmed the diagnosis of diffuse large B cell lymphoma by the positivity of CD20 (+++)