Oncology Case Reports Journal

Case Report
Published: 15 Jul, 2023

Bilateral Renal Metastatic Diffuse Large B-Cell Lymphoma Presenting with Acute Pancreatitis as a Paraneoplastic Syndrome: A Case Report

Karabuga B[1] and Karabuga EK[2]*

[1]Department of Internal Medicine, Afyonkarahisar State Hospital, Turkey

[2]Department of Internal Medicine, Afyonkarahisar Sinanpaşa State Hospital, Turkey

Abstract

Introduction: Diffuse Large B-Cell Lymphoma (DLBCL) is the most common subtype of Non-Hodgkin Lymphoma (NHL) in the world. The disease can involve many different parts of the body and is usually diagnosed with large masses in the abdomen. While the most common causes of acute pancreatitis are gallstones and alcohol, malignancies involving the pancreas are also included in the etiology. We present a rare case of DLBCL patient with bilateral multiple renal metastases presented with paraneoplastic acute pancreatitis without pancreatic involvement.

Case: A 24-year-old female patient with no known history of any disease was admitted with abdominal pain radiating to the back. The patient, who had significant amylase elevation in the tests was hospitalized with the preliminary diagnosis of acute pancreatitis. While no pathologic finding in the pancreas and biliary tract was detected in imaging studies, single mass in the left lung and bilateral multiple masses in the kidneys were detected. The patient was later diagnosed as DLBCL after further evaluation.

Discussion: In acute pancreatitis cases, the most frequently blamed causes are gallstones and use of alcohol. Anatomical malformations, various drugs and malignancies are also considered in the etiology. In our patient, no etiologic cause was found in the detailed history and imaging studies, and DLBCL was diagnosed with no pancreatic involvement, and it was thought that acute pancreatitis emerged as a paraneoplastic syndrome due to the existing malignancy. In addition, bilateral renal metastatic lesions are extremely rare in DLBCL clinic.

Conclusion: Our case report is remarkable in that it presents with the clinical presentation of paraneoplastic acute pancreatitis due to DLBCL without pancreatic involvement and bilateral multiple renal involvement, which is extremely rare in the clinic of DLBCL.

Keywords: Acute pancreatitis; Diffuse large B cell lymphoma; Paraneoplastic syndrome; Metastasis

OPEN ACCESS

Correspondence:
Berkan Karabuga, Department of Internal Medicine, Afyonkarahisar State Hospital, Turkey, Tel: +905378563905;

Received Date: *23 Jun 2023*
Accepted Date: *11 Jul 2023*
Published Date: *15 Jul 2023*

Citation:
Karabuga B, Karabuga EK. Bilateral Renal Metastatic Diffuse Large B-Cell Lymphoma Presenting with Acute Pancreatitis as a Paraneoplastic Syndrome: A Case Report. Oncol Case Report J. 2023; 6(2): 1057.

ISSN: 2641-9173

Introduction

Diffuse Large B-Cell Lymphoma (DLBCL) originates from mature B cells and is the most common Non-Hodgkin Lymphoma (NHL) subtype worldwide, constituting approximately one-fourth of all NHL cases and the majority of these patients are male [1]. The frequency of diagnosis increases with age and the disease also has a familial component [2]. The disease can involve many parts of the body, but is usually diagnosed with large, symptomatic neck or abdominal masses. While the most common causes in acute pancreatitis cases are gallbladder stones and use of alcohol, malignancy-induced pancreatitis cases are most frequently seen in pancreatic adenocarcinomas and more rarely in metastases of tonsils, bronchial adenocarcinomas or melanomas [3]. In this case report, we present a rare DLBCL patient with bilateral multiple renal metastases diagnosed with paraneoplastic acute pancreatitis without pancreatic involvement.

Case Presentation

A 24-year-old female patient with no known history of any disease was admitted to the emergency department with abdominal pain radiating to the back that had been present for about 3 days. On the time of admission tests, it was found that amylase: 828 U/L, LDH: 272 U/L, leukocyte: 6.48/

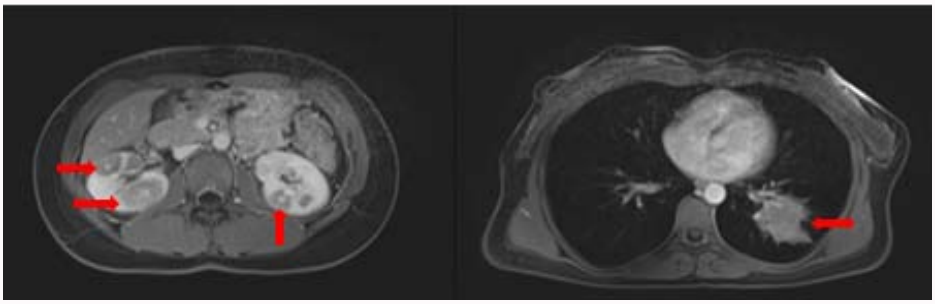

Figure 1: Bilateral renal multiple metastatic masses and primary tumor in the left lung.

mm^3, Hemoglobin: 13.2 g/dl thrombocyte: 229 K/uL, Erythrocyte Sedimentation Rate (ESR): 24 mm/h, CRP: 4 mg/L. Upon further investigation, it was determined that there was no history of use of drug, alcohol or herbal supplement. In the abdominal CT, there was mild prominence in the pancreatic duct, no pathology was detected in the peripancreatic fatty tissue. In the thorax CT peribronchial consolidation area was observed in the posterior segment of the lower lobe of left lung. No mass or lymphadenopathy was detected in the mediastinum. On physical examination, the patient was in good condition. Vital signs were normal. Abdominal examination revealed epigastric tenderness. There was no defense/rebound sign. Remainder of the physical examination was unremarkable. Due to abdominal pain and high amylase level, the patient was admitted to the hospital with a preliminary diagnosis of acute pancreatitis. Enteral feeding was stopped. Intravenous hydration was provided. In the whole abdominal USG, pancreas was normal, no pathology was detected in the gallbladder and its ducts. In the upper pole of the right kidney cortex, hypoechoic areas, the largest of which are approximately 28 mm × 26 mm in size, with indistinguishable borders were observed, it was recommended to make a differential diagnosis in terms of mass/inflammatory change. In MRI cholangiopancreatography, the common bile duct was in normal dimensions, no space-occupying lesion was detected, and the intrahepatic bile ducts and pancreatic duct were found to be normal. Contrast-enhanced dynamic MRI of the upper abdomen performed for differential diagnosis due to lesions in the left lung and right kidney. Cortical located in both kidneys, numerous well-circumscribed lesions with less contrast enhancement compared to parenchyma were detected. A 53 mm × 28 mm mass lesion with irregular borders and marked contrast enhancement was detected in the posterobasal segment of the lower lobe of the left lung. In the follow-up, the patient's abdominal pain and amylase value regressed with intravenous hydration, and enteral nutrition was restarted. A whole-body PET-CT performed for further evaluation. Hypermetabolic mass lesion (primary tumor) in the lower lobe of the left lung, statin nodules around the mass, hypermetabolic metastatic lymph nodes in the anterior mediastinum and left hilar region, and multiple hypermetabolic metastatic lesions in both kidneys were detected. Tru-cut biopsy was performed on the mass in the lung, which was thought to be a primary lesion with a preliminary diagnosis of malignancy. The biopsy result was reported as non-Hodgkin lymphoma, consistent with diffuse large B-cell lymphoma. Figure 1 shows the multiple masses in the bilateral kidneys and the primary tumor image seen in the left lung within the sections in the dynamic triphasic abdominal MRI examination. The treatment of the patient who was diagnosed with DLBCL was continued by the oncology clinic.

Discussion

After excluding gallstones and use of alcohol, which are the most common causes in acute pancreatitis cases, many causes including malignant processes should be investigated. Among rare causes, anatomical malformations of the pancreas, use of drug or substance that may cause pancreatitis should be considered. Etiological causes were investigated in the management of our patient, there was no known history of disease, use of drug or substance. Imaging was performed to rule out causes that may compress the pancreatic duct or biliary tract, and no space-occupying lesion was detected in the pancreatic parenchyma or the surrounding tissue. NHL cases are frequently diagnosed with large abdominal masses, and extranodal involvement is common especially in stage 1 to 2 patients [4]. Pancreatic involvement is very rare in NHL cases and is seen less than 2% [5]. Nodal or extranodal masses in the abdomen can cause symptoms by compression on the surrounding tissues and organs, and compression on the pancreatic duct or biliary tract has an important place in cases of acute pancreatitis. Although there was no compression on the pancreatic duct or biliary tract and pancreatic parenchyma involvement in our patient, the development of acute pancreatitis was evaluated as a paraneoplastic syndrome secondary to malignancy. Serum LDH level is found to be high in more than half of DLBCL cases and the high LDH level of our patient at the time of admission is consistent with the literature [6]. Renal involvement is extremely rare in DLBCL patients, and it was found at a rate of 2% in a study, and bilateral involvement was reported much less frequently [7]. In our patient, bilateral diffuse renal involvement, which is extremely rare, draws attention.

Conclusion

Many causes are blamed in the etiology of acute pancreatitis, and it can be seen in a wide spectrum from inflammatory processes to malignant diseases. Although cases of acute pancreatitis secondary to pancreatic primary or metastatic tumors have been reported in the literature, to our knowledge, our case is remarkable in that it is the first study to report a case of paraneoplastic acute pancreatitis in a hematological malignancy without pancreatic involvement and it shows bilateral renal involvement, which is extremely rare in DLBCL cases.

References

1. Morton LM, Wang SS, Devesa SS, Hartge P, Weisenburger DD, Linet MS. Lymphoma incidence patterns by WHO subtype in the United States, 1992-2001. Blood. 2006;107(1):265-76.

2. Goldin LR, Landgren O, McMaster ML, Gridley G, Hemminki K, Li X, et al. Familial aggregation and heterogeneity of non-Hodgkin lymphoma

in population-based samples. Cancer Epidemiol Biomarkers Prev. 2005;14(10):2402-6.

3. Anderson JH, Morran CG, Anderson JR, Carter DC. Acute pancreatitis and non-Hodgkin's lymphoma. Postgrad Med J. 1987;63(736):137-9.
4. Hui D, Proctor B, Donaldson J, Shenkier T, Hoskins P, Klasa R, et al. Prognostic implications of extra nodal involvement in patients with diffuse large B-cell lymphoma treated with rituximab and cyclophosphamide, doxorubicin, vincristine, and prednisone. Leuk Lymphoma. 2010;51(9):1658-67.
5. Pitlick MM, Abeykoon JP, Dao LN, Thompson CA. Non-Hodgkin lymphoma presenting as acute pancreatitis: A rare occurrence. Clin Case Rep. 2019;7(1):107-9.
6. Armitage JO, Weisenburger DD. New approach to classifying non-Hodgkin's lymphomas: Clinical features of the major histologic subtypes. Non-Hodgkin's lymphoma classification project. J Clin Oncol. 1998;16(8):2780-95.
7. Villa D, Connors JM, Sehn LH, Gascoyne RD, Savage KJ. Diffuse large B-cell lymphoma with involvement of the kidney: Outcome and risk of central nervous system relapse. Haematologica. 2011;96(7):1002-7.