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Pancreatic Non-Hodgkin Lymphoma, a rare cause for obstructive jaundice. A Case reports

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ABSTRACT

INTRODUCTION: Primary pancreatic lymphoma (PPL) is an uncommon condition. Clinical features of PPL are nonspecific & likely to be misrecognized as pancreatic malignancy.
CASE PRESENTATION: 71 years old male patient presented with upper abdominal pain with obstructive jaundice.
CLINICAL FINDINGS AND INVESTIGATIONS: Examination reveals RHC tenderness and deep icteric. CT shows a large pancreatic head and uncinate process mass. Final diagnosis made with USS guided core biopsy which confirmed B cell, Non-Hodgkin Lymphoma (NHL).
INTERVENTION AND OUTCOME: Complete remission of PPL occurred following six cycles of chemotherapy with R-CHOP regimen.
RELEVANCE AND IMPACT: PPL is rare condition, accounts 1% of extra nodal lymphomas and 0.5% of malignant pancreatic neoplasm. Ultrasonography, Endoscopic ultrasonography, CT and MRI are the imaging modalities use to diagnose the pancreatic neoplasm. Biopsy of all pancreatic lesion is crucial which can diagnose curable condition such as PPL. Combined therapy with chemotherapy and radiotherapy without surgery is advisable for PPL.

1. Introduction

Lymphoma classified into two main types. They are Hodgkin's (HL) and Non-Hodgkin's (NHL) [1]. HL rarely spreads to extra lymphatic tissues by contrast, NHL often spreads to the extra lymphatic tissues. Most common site of extra lymphatic spread of NHL is gastrointestinal tract, accounts for 15–20% of all NHL [1]. PPL is a rare condition, reported less than 0.5% of pancreatic neoplasms [2]. Clinical presentations of patients with PPL often resembles to that of patients with Pancreatic adenocarcinoma and is difficult to differentiate radiologically. Histology is the confirmatory diagnosis for PPL. Management of PPL is chemotherapy and radiotherapy, where patients with obstructive symptoms of biliary tract needs surgical intervention [3].

This case report has been reported in line with the SCARE Criteria.

2. Case report

A 71 years old male patient diagnosed with prostatic carcinoma presented with history of right hypochondrial (RHC) pain, nausea, vomiting, yellowish discoloration of sclera and generalized itching, without any significant loss of appetite and loss of weight. Family history and drug history were unremarkable.

On general examination he was icteric with no cervical, axillary or groin Lymph node enlargement. Abdominal examination revealed RHC deep tenderness but no mass palpable.

Liver function test reveals obstructive jaundice. USS abdomen revealed large mass in head of pancreas with dilated intra hepatic and common bile duct. CT chest, abdomen& pelvis revealed a large pancreatic head and uncinate process mass with main portal vein, superior mesenteric vein and common bile duct invasion, multiple tiny pulmonary nodules were suspicious for metastasis and no liver focal lesion (Fig. 1).

USS guided FNAC of pancreatic head mass revealed few atypical looking cell clusters, suggest histological assessment. USS guided core biopsy of pancreatic head mass done by radiologist and its morphology and limited panel of immunohistochemistry favour of B cell, Non-Hodgkin Lymphoma. Pan CK the cells are negative. CD3 Occasional background cells are positive. CD 20 The pleomorphic cells show dense membrane positivity. Ki67 60–70% (Fig. 2).

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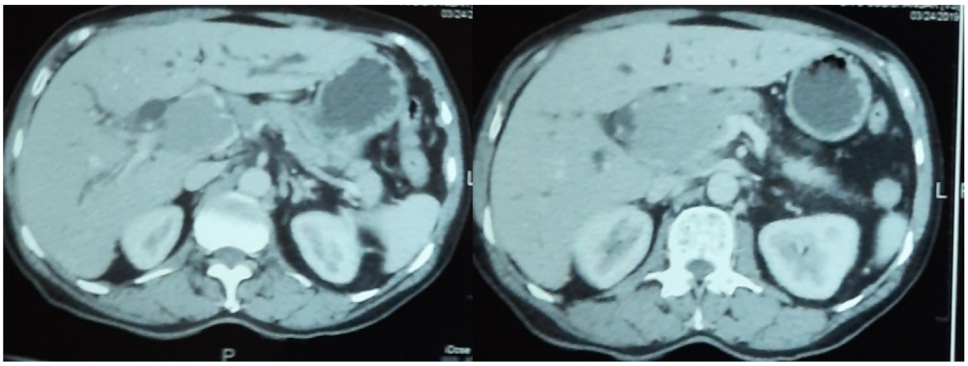

Fig. 1. CT shows Pancreatic head and uncinate process mass.

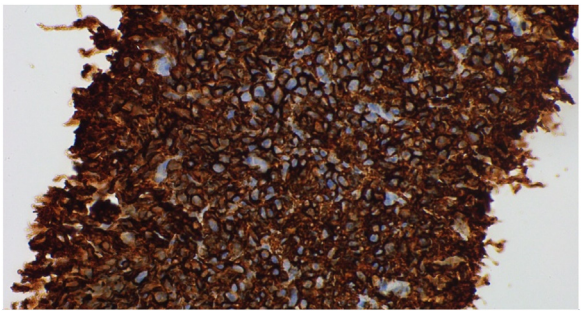

Fig. 2. CD 20 positive atypical lymphocytic cells.

He underwent ERCP and stenting done to the common bile duct. Post procedure period was uneventful. Then he was treated with six cycles of chemotherapy with Doxorubicin, Cyclophosphamide, Vincristine, Prednisolone and Rituximab (R-CHOP regimen). Repeat CT done 6 months later and it revealed complete remission with treatment. Following remission stent was removed with UGIE.

3. Discussion

PPL is rare condition, accounts 1% of extra nodal lymphomas and 0.5% of malignant pancreatic neoplasm [4]. Most common clinical presentations are abdominal pain, jaundice, acute pancreatitis, small bowel obstruction and diarrhea, which mimic the clinical presentation of pancreatic adenocarcinoma. Fever & night sweats are the common clinical presentations of NHL and these are absent in PPL. Dominant mass in the pancreas, the absence of superficial or mediastinal lymphadenopathy, normal leukocyte count in peripheral blood, and the absence of hepatic or splenic involvement are diagnostic criteria for PPL proposed by Dawson et al. [5]. PPL involve mainly the head of pancreas though found in other parts of gland as well [6].

Ultrasonography, Endoscopic ultrasonography, CT and MRI are the imaging modalities use to diagnose the pancreatic neoplasm. There are two different morphological patterns of pancreatic involvement observed which are localized well-circumscribed and diffusely enlarged pattern, infiltrating the pancreatic gland [7]. In this case CT chest, abdomen& pelvis revealed a large pancreatic head and uncinate process mass with main portal vein, superior mesenteric vein and common bile duct invasion.

Clinical features and imaging modalities are helpful in diagnosis of PPL but for definitive diagnosis need pathological studies with Image guided FNAC, EUS guided FNAC and CT guided biopsy. Alternatively, laparotomy or laparoscopy to take biopsy from pancreatic lesion or Lymph nodes can be performed. In this case USS guided FNAC of pancreatic head mass revealed few atypical cell clusters which required further histological assessment. Then we performed USS guided core biopsy of pancreatic head mass which confirmed Non-Hodgkin Lymphoma of B Cell origin.

Chemotherapy or Radiotherapy are the treatment of choice for PPL. Behrns et al. [1] reported that the median survival of PPL patients treated either by chemotherapy or radiotherapy alone was 13 and 22 months respectively, but with combined chemoradiotherapy it was $\leq$ 26 months. Chemotherapy consist of CHOP regimen (Doxorubicin, Cyclophosphamide, Vincristine and Prednisolone) and sometimes Rituxan plus CHOP (R-CHOP) [8]. In our case we treated with six cycles of chemotherapy with R-CHOP regimen.

4. Conclusion

Clinical features, imaging and biochemical markers are not specific for PPL. Biopsy of all pancreatic lesion is crucial which can diagnose curable condition such as PPL. Combined therapy with chemotherapy and radiotherapy without surgery is advisable for PPL.

Declaration of Competing Interest

The authors report no declarations of interest.

Funding

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Ethical approval

This study is exempt from ethical approval.

Consent

Informed written consent was obtained from the patient for publication of this case report and accompanying images. A copy of written consent is available for review by the Editor-in-Chief of this journal on request.

Author contribution

This patient was diagnosed and followed in our unit. Conception and design: Pragalathan, Gobishangar, Indranath, Jenil. Drafting of manuscript: Pragalathan, Gobishangar, Indranath, Jenil. Critical revision: Pragalathan, Gobishangar.

Registration of research studies

Not applicable.

Guarantor

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