Obstructive Jaundice Secondary to Primary Duodenal Lymphoma with CMV Duodenitis Causing Upper GI Bleed in Retro-Positive Patient: A Case Report

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Abstract Gastrointestinal (GI) tract is the most common site of extranodal lymphoma. Primary GI lymphoma constitutes a small amount of all lymphomas. Primary duodenal lymphoma presenting initially with obstructive jaundice is very rare. Primary B-cell lymphoma of the duodenum was shown to be the cause of biliary obstruction in a retropositive male, which was proved by endoscopic biopsy. Histopathology also showed cytomegalovirus inclusion bodies with duodenitis.

Keywords Lymphoma · Duodenum · Jaundice · Cytomegalovirus · Retropositive.

Introduction

Gastrointestinal lymphomas account for approximately 40 % of all extranodal lymphomas and 4–12 % of all Non Hodgkin lymphomas [1, 2]. The 0.8–2 % of gastrointestinal lymphomas occur in duodenum [1]. Duodenal lymphoma may lead to obstructive jaundice. Cytomegalovirus is one of the common opportunistic infections in a retropositive patient. Here we present such a rare case of duodenal lymphoma with cytomegalovirus duodenitis, presenting with obstructive jaundice in a retropositive patient.

Case Summary

A 39 years aged male patient, known retropositive since last 8 years, presented to us with pain abdomen, fever and jaundice. Patient had 3–4 episodes of haematemesis and malena on admission, which was managed conservatively. After 3 days, upper GI scope showed clots in pylorus and 1st part of the duodenum with fleshy friable lesion in the second part of the duodenum (Fig. 1a). Multiple punch biopsies were taken and sent for histopathological examination. Histopathology revealed diffuse large B cell lymphoma (Fig. 2a), CD-20 and CD-3 negative, with CMV duodenitis (Fig. 2b). Haematological and biochemical parameters are as follows, Hb-6.2 gm%, WBC-6500cells/cumm, Total Bilirubin-12.1 mg/dl, Direct Bilirubin-9.6 mg/dl, ALP-1790 U/L, stool occult blood positive. Ultrasonography of abdomen showed periampullary mass causing gross CBD and pancreatic duct dilatation with central and peripheral intrahepatic biliary radical dilatation (IHBRD). CT abdomen showed lesion involving the second and third part of the duodenum grossly narrowing the lumen (Fig. 1b). During ERCP the scope could not be negotiated through the duodenal obstruction for stenting. The patient was not willing to undergo percutaneous transhepatic biliary tract drainage (PTBD). Patient refused any further therapy and was discharged against medical advice.

Discussion

Duodenal malignancies present with jaundice due to extra hepatic biliary obstruction in 43 % cases, but the exact estimated prevalence of obstructive jaundice in duodenal lymphoma is not known [2]. In order to diagnose primary GI tract lymphoma, the following criteria are required:

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Fig. 1 **a** Endoscopy showing intra luminal circumferential growth in the 1st part of the duodenum with blood clots. **b** Coronal section of CECT showing circumferential growth in 1st and 2nd part of the duodenum with CBD and pancreatic duct dilatation

absence of palpable superficial lymphadenopathy, absence of enlargement of mediastinal lymph node on chest X-ray, normal leukocyte and differential count, predominance of elementary tract lesion with only regional lymph node involvement and absence of liver and spleen involvement. Evidence of distant disease should be sought through upper airway examination, bone marrow biopsy, and CT of the chest and abdomen to detect lymphadenopathy [3].

Cytomegalovirus (CMV) is the most common viral pathogen affecting the gastrointestinal tract in HIV-infected patients. NHL occurs in 5–10 % of HIV patients. The clinical and radiographic findings of CMV esophagitis, gastritis, enteritis and colitis have been well documented. Rarely however, CMV may also involve the duodenum causing duodenitis and present with upper GI bleed [4]. Endoscopic retrograde cholangiography (ERCP) or PTBD are done to relieve the jaundice [1–3, 5–7]. In majority of previous case reports, biliary drainage was established before starting chemotherapy [1]. Literature also suggests that chemotherapy

may be the most successful treatment for primary GI tract lymphoma and that the need for surgical removal is not always necessary [3, 7]. Multimodality treatment for patients with GI lymphoma has been employed in some centers. Nowadays many patients are treated with chemoradiation therapy alone. Surgery is done only for few cases, where the lesion is arising from the duodenal papilla (Whipple procedure). Bypass surgery is done in few cases to relieve the biliary and duodenal obstruction [1].

Conclusion

The incidence of Lymphoma has been increasing, especially with the increase in retropositive cases. Among the GI Lymphoma, duodenum is the least affected site. These patients are known to present with various opportunistic infections. CMV is the most common to affect GI system and can present with upper GI hemorrhage. In a patient presenting with signs of obstructive jaundice with a known retropositive status, always a

Fig. 2 **a** Duodenal biopsy showing diffuse infiltration by large non cleaved lymphoid cells surrounding Brunner glands (H&E, ×400). **b** Epithelial cells with large eosinophilic intranuclear (Arrow) CMV inclusions (H&E, ×400)

suspicion of duodenal lymphoma should be thought. These patients should be investigated accordingly. The main modality of treatment will be chemotherapy. Surgical intervention is indicated in few exceptions.

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