

Obstructive Biliopathy Caused by Primary Duodenal Lymphoma

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Abstract

Case Report

Primary lymphoma of the duodenum presenting with obstructive jaundice is a rare entity. We report a case of primary non-Hodgkin's lymphoma of the duodenum producing obstructive jaundice in a middle aged lady, where the concentric thickening of the duodenal wall also gave rise to symptomatic partial high small bowel obstruction in due course. Guided aspiration and flowcytometry established a diagnosis of diffuse large B-cell lymphoma.

Keywords: **lymphoma**, Biliopathy, flowcytometry.

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INTRODUCTION

Duodenum is an uncommon site for primary gastrointestinal lymphoma. We report a case of primary duodenal B cell lymphoma producing obstruction of the extrahepatic biliary passage.

Case Report

A 45 years lady presented with yellowish discoloration of eyes and urine, pruritus, and progressive weight loss for 3 months. Pruritus was the first and most disabling of all symptoms, even disturbing her sleep. Patient also had history of recurrent episodes of vomiting, inanition, and early satiety -developed relatively recently. There was no history of dysphagia, hematemesis. Melena, colicky pain abdomen, swelling of abdomen, alcohol intake, high risk behavior, altered bowel habit, altered sensorium, or any other symptom pertaining to other organ systems. Her past, personal, and family history was noncontributory.

On examination, patient was undernourished with mild pallor and deep jaundice. There was no clubbing or lymphadenopathy. Vital parameters were stable. Abdominal examination revealed mild enlarged, soft, non-tender liver (span 15 cm), and palpable, distended, non-tender gall bladder. There was no free fluid, splenomegaly, lymphadenopathy, other abdominal lump, distended veins on parities, skin changes, or any abnormalities on auscultation. Examination of all other systems was unrevealing. Routine investigations revealed normal hemogram (except Hb= 9.8 gm % and sedimentation rate 65 mm at 1st hour) and renal biochemistry. Liver function tests showed bilirubin=

12.5 mg% (direct 10.9 mg %, indirect 1.6 mg %), total protein= 7.3 gm% (albumin 4.2 gm %, globulin 3.1 gm %), SGOT= 77 IU/L, SGPT= 53 IU/L, alkaline phosphatase= 2455 IU/L, and GGT= 324 IU/L. Abdominal ultrasound revealed mild hepatomegaly with normal echotexture, distended gall bladder filled with sludge, dilatation of the entire visible extrahepatic biliary tree, without any ascites, splenomegaly, lymphadenopathy or evidence of portal hypertension. Duodenum was concentrically thickened in its second and third parts. Upper GI endoscope could not be passed into the duodenum because of abrupt occlusion of its lumen at D1 without any mucosal irregularity, ulcer, bleeding, and polyps. Mucosa appeared absolutely healthy proximal to the obstruction. Endoscopy- guided mucosal biopsy was negative for urease test and showed non- specific inflammation on histopathology. Computed Tomography (CT) scan of abdomen after oral contrast revealed concentrically thickened duodenum compressing the adjacent structures like common bile duct, pancreas with distended gall bladder and dilatation of extra-hepatic biliary channels (Fig-1). Duodenal lumen was narrowed, eccentric, with delayed passage of dye in the distal part (Fig-2). Rest of the bowel was normal. There was no ascites, splenomegaly, retroperitoneal or mesenteric lymphadenopathy. CT- guided aspiration from the duodenal wall showed prominent infiltration of large lymphoid cells with pale nuclei, scanty cytoplasm, and multiple nucleoli- suggestive of high grade, diffuse large cell lymphoma (Fig-3). On flowcytometry, the malignant cells expressed CD 19, CD 20 and surface Immunoglobulin- all markers of B cell lineage. ERCP scope could not be negotiated through the obstruction. Blood for anti-endomysial

antibody, ELISA for HIV, bone marrow aspiration study, chest CT, and colonoscopy were normal. A final diagnosis of primary B-cell duodenal lymphoma (Ann

Arbor stage I_E /Lucano stage I) was made. Patient refused any further therapy.



Fig-1: Contrast- enhanced CT scan of abdomen showing concentrically thickened duodenum compressing the adjacent structures, distended gall bladder and dilatation of extra-hepatic biliary channels



Fig-2: Contrast- enhanced CT scan of abdomen showing narrowed, eccentric duodenal lumen

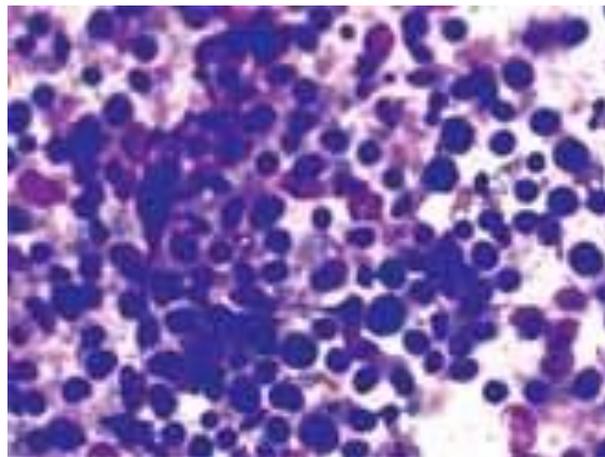


Fig-3: CT-guided FNAC from the duodenal wall showing cytological features of diffuse large cell lymphoma

DISCUSSION

Tumors of the small intestine account for only 1-2% of all gastrointestinal malignancies, of whom 4-11% is lymphomas [1]. Majority of small bowel lymphomas occur in the ileum. Only for 12% of all

malignant duodenal neoplasia are duodenal lymphomas [2].

The presenting symptoms are non-specific and the usual duration before diagnosis is 4-6 months. Abdominal pain (crampy or colicky) is the usual complaint. Other symptoms, like anorexia, weight loss,

and malaise are also common. Nausea and vomiting occur with high jejunal or duodenal lesions while abdominal distension is common with distal disease. Diarrhea is due to bacterial over growth or extensive involvement [1, 2]. There are rare case reports of obstructive jaundice in duodenal lymphoma which is other wise an uncommon presenting feature [3]. The exact/estimated prevalence of obstructive jaundice in duodenal lymphoma is not known but 43% of all duodenal malignancies present with jaundice due to extrahepatic biliary obstruction [4]. Abdominal mass is observed in one third; another third has no abnormality on examination [2].

Gross appearance may show ulcerations with heaped up borders, multiple nodules or plaques, diffuse wall thickening, enlargement of mucosal folds, polyps, or large fungating masses [2]. Circumferential involvement may give rise to an Apple-core lesion, or an aneurismal dilatation of an organ. The tumor may reach massive proportion while causing few symptoms, particularly in stomach. Most common cell type is diffuse large B cell though all cell types have been described [5]. Surgery is the therapy of choice with complete resection achieved in 80% [1]. Surgical debulking before institution of chemo or radiotherapy, even in stage III AND IV, may improve survival [1].

Diseases like celiac sprue, primary or secondary immunodeficiency, Epstein Barr virus infection, inflammatory bowel disease and *H. pylori*

infection can give rise to gastrointestinal lymphomas and need to be excluded [6].

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