Iran Red Crescent Med J. 2017 August; 19(8):e55381. doi: 10.5812/ircmj.55381.

Published online 2017 August 22. **Case Report**

Obstructive Duodenal Lymphoma: A Case Report

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Received 2017 January 18; **Revised** 2017 March 07; **Accepted** 2017 April 09.

Abstract

Introduction: Lymphomas comprise a diverse group of neoplasms derived from B cells, T cells, or NK cells. Although GI tract is a current site for the secondry spread of non-hodgkin lymphoma, it's involvment as the primary site is less common noticeably showing only 10% - 15%. The more lymphoid tissue is in parts of small intestine, the more incidence of lymphoma is depicted; thus, as expected, ileocecal region is the most frequent site and the duodenum remains as the most infrequent site.

Case Report: An 18-year-old woman with no pervious history of any disease was admitted to the emergency room of Shohaday-e-Tajrish hospital that is a tertiary hospital in Tehran, Iran. The patient presented with weakness, nausea, and retractile vomiting. The CT scan was performed, showing that stomach and proximal of duodenum were dilated significantly and wall thickening of duodenum, 2nd and 3rd portions, was obvious. No pathological lymph node or invasion to adjacent organs was seen. The patient was explored; operation findings were dilatation of stomach and duodenum; thickening of duodenojejunal junction with 10 cm extension was mentioned. Biopsied tissue during operation showed diffuse large B cell lymphoma.

Conclusions: Duodenal lymphoma is infrequent and it is rare to represent with obstruction. Thus, if there is any clinical indication and no definite diagnosis in such patient, biopsy and histopathological investigation is necessary after radiological studies.

1. Introduction

Lymphomas comprise a diverse group of neoplasms derived from B cells, T cells, or NK cells, associated with various clinical presentations. GI tract is a current site for the secondry spread of non-hodgkin lymphoma (NHL) (1).

However, it's involvment as the primary site is less common noticeably showing only 10% - 15%. All NHLs are accounted for approximately 4% of all tumors arising in the GI system (2). The more lymphoid tissue is in parts of small intestine, the more incidence of lymphoma is depicted; thus, as expected, ileocecal region is the most frequent site, while the duodenum remains as the most infrequent site (3). Evidence of obstruction is secondary to rare form of intestinal lymphoma; duodenal primary lymphoma made our patient distinct.

2. Case Report

An 18-year-old woman with no pervious history of any disease was admitted to the emergency room of Shohaday-e-Tajrish hospital that is a tertiary governmental hospital in Tehran, Iran, in October 2016. The patient presented with weakness, nausea, and retractile vomiting. These symptoms began and worsen after childbirth (2 months ago). She lost weight about 25 kg during this time.

The NGT was fixed, and about 800 CCs gastric secretion and digested food particles brought out. On examination, she seemed ill and pallor, but thermodynamically stable. Mild Epigastria tenderness with slight abdominal distention was noted. No lymphadenopathy was detected, and other parts of examination were unremarkable. The vital signs were in the normal range, except mild tachycardia.

On investigation, complete blood count showed mild anemia and a leukocytosis (13,700), predominantly PMN (70%); platelet count was normal. PBS had no pathology, and urine analysis, liver function, and LDH test revealed no abnormality. The ESR was 43 mm/h.

The CT scan was performed, showing that stomach and proximal of duodenum were dilated significantly while the wall thickening of duodenum, 2nd and 3rd portions, was obvious. No pathological lymph node or invasion to adjacent organs was seen. There was no evidence of pathological mediastina, cervical lymph nodes, and lung parenchymal lesion.

Since superior mesenteric artery syndrome was suspected, CT Angiography (CTA) was recommended for this patient. On CTA, besides above finding, common trunk of celiac and SMA arteries as a rare normal variant were noted.

Endoscopy was the latter procedure done. During endoscopy duodenitis was seen in parts two and three of duodenum with stricture in proximal segment of third part. Biopsy was then taken.

The patient was explored; operation findings were dilatation of stomach and duodenum; thickening of duodenojejunal junction with 10 cm extension was mentioned.

Pathology of endoscopy biopsy samples was sever chronic and active duodenitis with mucosal erosion, while the biopsied tissue during operation showed diffuse large B cell lymphoma (Figure 1 and Figure 2).

3. Discussion

Nearly 30% of non-hodgkin lymphomas originate in tissues such as spleen, thymus, and waldeyer's ring rather than lymph nodes; thus, they are named as primary extra nodal NHL. Numerous studies have elucidated clinical differences between nodal and extra nodal NHL, including differences in etiology, presentation, behavior, and outcome (4).

Studies inducate that lymphomas showed more incidence in the two last decades, and it is more prominent in extra nodal type in comparison with nodal type (5).

Primary lymphoma of the GI tract, as a single site, should be limited to the tract with no palpable peripheral lymphadenopathy. In addition, abdominal X-ray and white blood cell count would not reveal any abnormalities. Nodal involvement, if observed, should be limited to the drainage area of the involved segment of the GI tract while liver and spleen remain intact. Primary involvement of the GI tract is significantly less common, representing only 10% - 15% of all NHLs and accounting for approximately 4% of all tumors arising in the GI system (2). The more lymphoid tissue is in parts of small intestine, the more incidence of lymphoma is depicted; so, as expected, ileocecal region is the most frequent site, while the duodenum remains as the most infrequent site (3). As mentioned in this case, diagnosis of lymphoma especially its primary type without evidence of lymphadenopathy and hepatosplenomegaly was associated with obstruction; this is an unusual manifestation of lymphoma, individualizing this case.

Secondary involvement of the GI tract with lymphoma is common since mesenteric or retroperitoneal lymph nodes are common origins of lymphoma that may share their lymphatic drainage with lymphoid tissue in the GI tract (6).

Surgury and chemothrapy are the main treatments for lymphoma. It is noticeable that there is no superiority for each of them in terms of benefits for patiens. However, it seems that in primary small bowel lymphoma, chemotherapy has more survival than surgery (7).

3.1. Conclusions

As conclusion, duodenal lymphoma is infrequent and it is rare to represent with obstruction. Thus, if there is any clinical indication and no definite diagnosis in such patient, biopsy and histopathological investigation is necessary after radiological studies.

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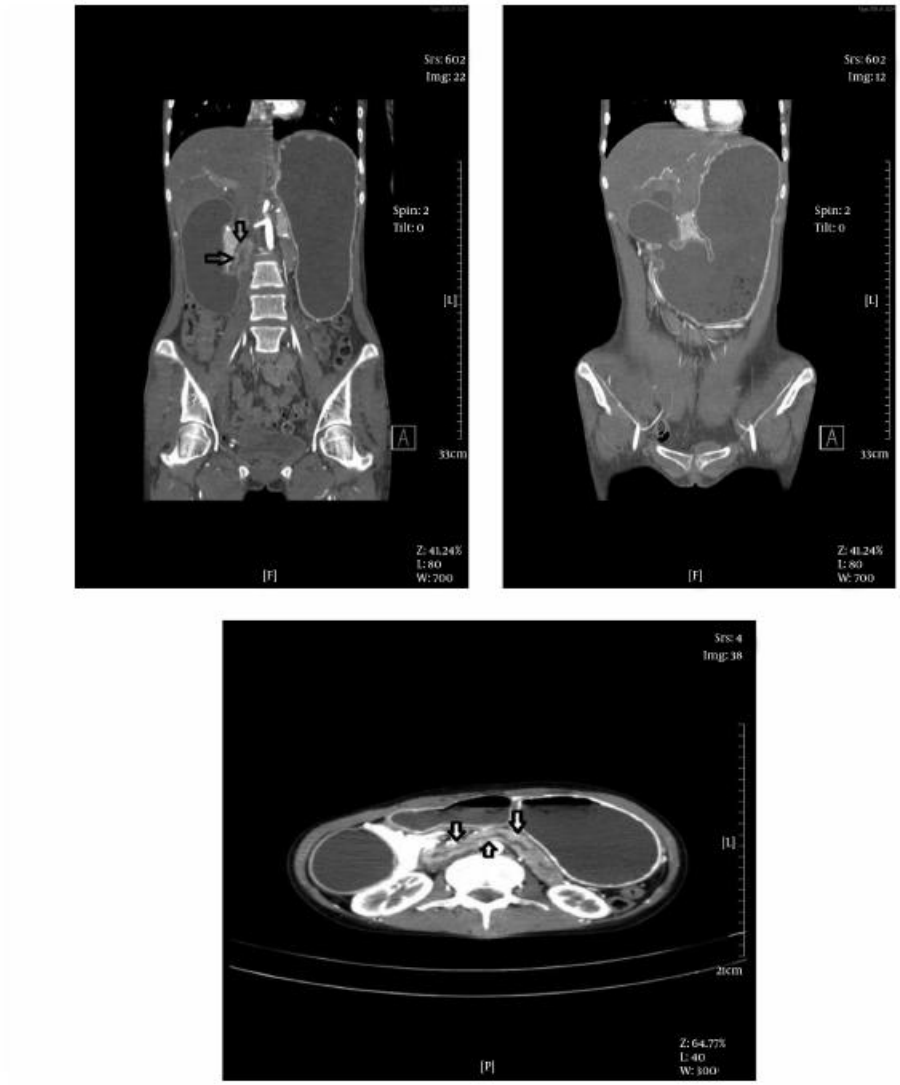

Figure 1. A, B, Coronal Section of Abdominal CT Scan with Contrast; C, Axial Section Showing Thickening of part 3rd, 4rd and Proximal Part of Jejunum (arrows) Associated with Dilation of Proximal Part of Duodenum and Stomach

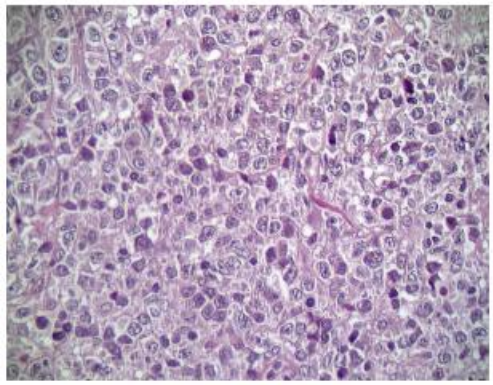

Figure 2. High Power View of Deodenal Wall Involved by Diffuse Large B-Cell Lymphoma (x400 H&E Stain)