

Gastrointestinal and Liver Pathology at Rush

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Case of the Month Answer – January 2011

Contributed by Drs. Luis Blanco Jr. and Shriram Jakate

Diagnosis: Colonic polyps with neoplastic small lymphoid B cells consistent with follicular lymphoma

Dawson et. al. defined gastrointestinal (GI) lymphoma as a localized disease without involvement of peripheral or mediastinal lymph nodes, liver, or spleen.¹ Lewin et. al., on the other hand, requires that patients exhibit GI symptoms or a predominant lesion with or without extraintestinal lesions.² Of all extranodal non-Hodgkin lymphomas (NHL), the GI tract accounts for 5 to 10%, making it the most common primary site for extranodal disease.³ In the GI tract, approximately 60 to 75% of all primary GI-NHL are in the stomach, followed by 14 to 38% in the small bowel, and 6 to 20% in the colon.⁴ Specifically in the colon, the most common malignant lymphoma is diffuse large B-cell lymphoma, followed by MALToma, mantle cell lymphoma, Burkitt's lymphoma, and then other B-cell lymphomas.⁵

Of all GI-NHL, GI follicular lymphoma (FL) accounts for only 1 to 3.6%.⁶ Patients range in age from 26 to 81 years at diagnosis of GI-FL, with a median age of 56 years, similar to that of nodal FL.⁷ Most patients are asymptomatic and the lesions are detected incidentally, such as in our case, while others complain of vague GI symptoms such as abdominal discomfort or heartburn.

Most GI lymphomas are solitary and ulcerated.⁵ On endoscopy, these may present as small whitish polypoid, confluent or scattered lesions or nodules, with a diameter of 1 to 2 mm (Fig. 1).⁸ On endoscopic ultrasound, thickening of the mucosal and submucosal layers of the intestinal wall with multiple hypoechoic granules correspond to the lesions.⁸

Follicular lymphoma is a neoplasm of follicle B cells, the centrocytes and centroblasts, that has at least a partially follicular pattern (Figs. 2 & 3). The follicles are approximately the same size as a mature germinal center, uniform in size, closely packed, lack a mantle zone, and are present in the lamina propria of the intestinal mucosa at the early stage and are transmural at the advance stage.⁶ Follicular lymphoma is immunohistochemically characterized by positivity with pan B-cell markers such as CD19, CD20 (Fig. 4), or CD22 and expression of other markers such as CD10 (Fig. 5) and bcl-2 (Fig. 6).^{9,10}

Because of its rarity, management of GI-FL is controversial. In general however, a complete response is achieved in most patients regardless of treatment modality, namely surgery, radiotherapy, chemotherapy, or a combination of these.⁶

Follicular lymphoma is a low grade neoplasm. Although the long term clinical outcome of GI-FL is unclear, because there has been no analysis of a large population-based registry, the relapse-free median time appears similar to that for nodal FL, with a median relapse-free survival of 63 months.⁶ There are only five reported cases in which patients have died of GI-FL.⁶

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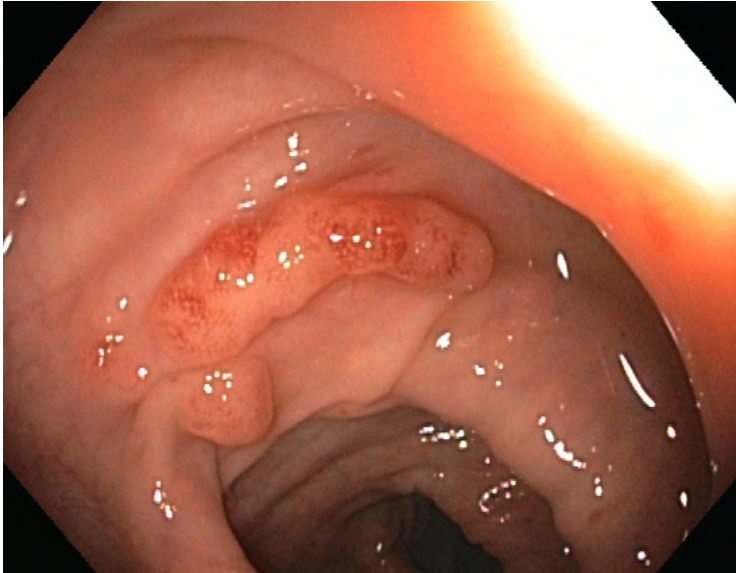


Fig. 1 Colonoscopy

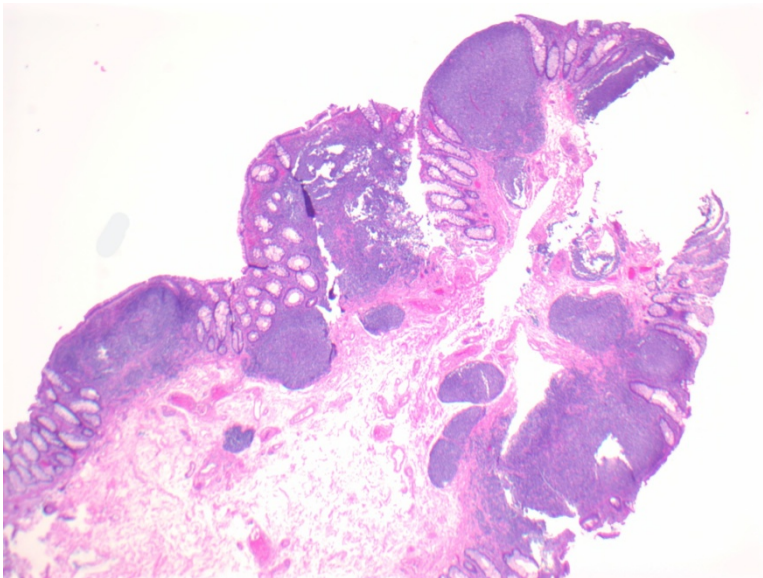


Fig. 2 Low magnification

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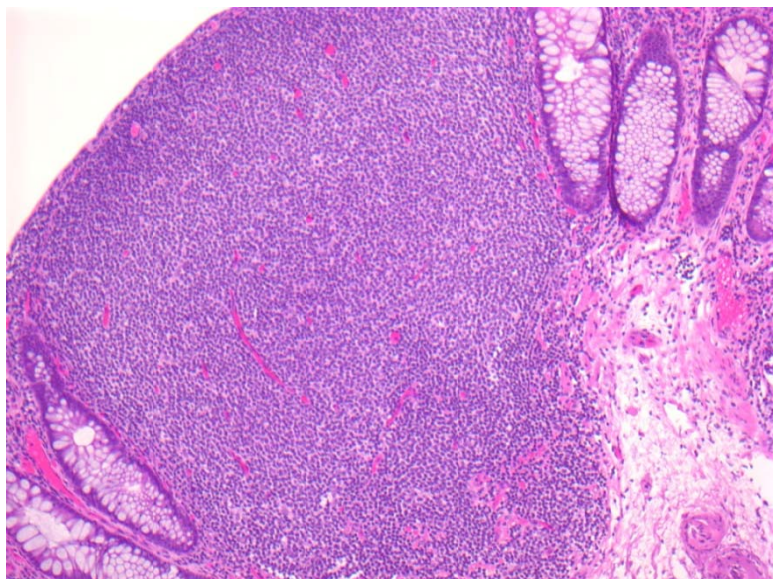


Fig. 3 High magnification

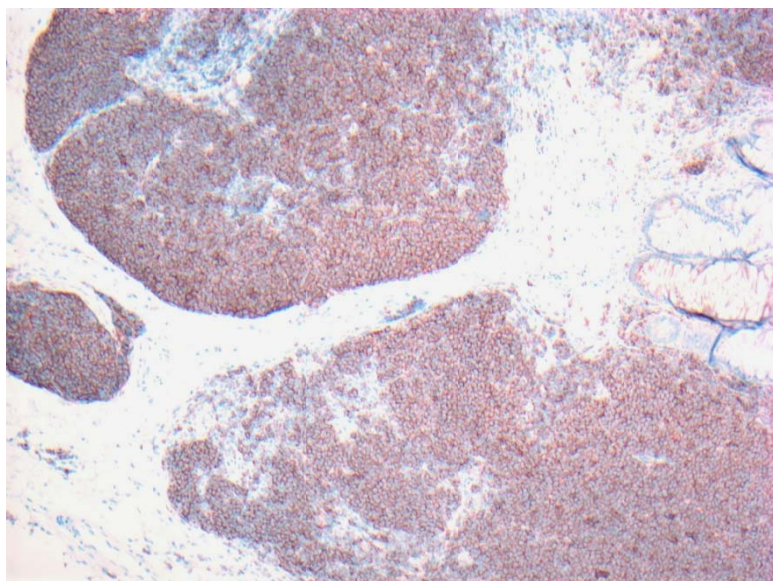


Fig. 4 CD20

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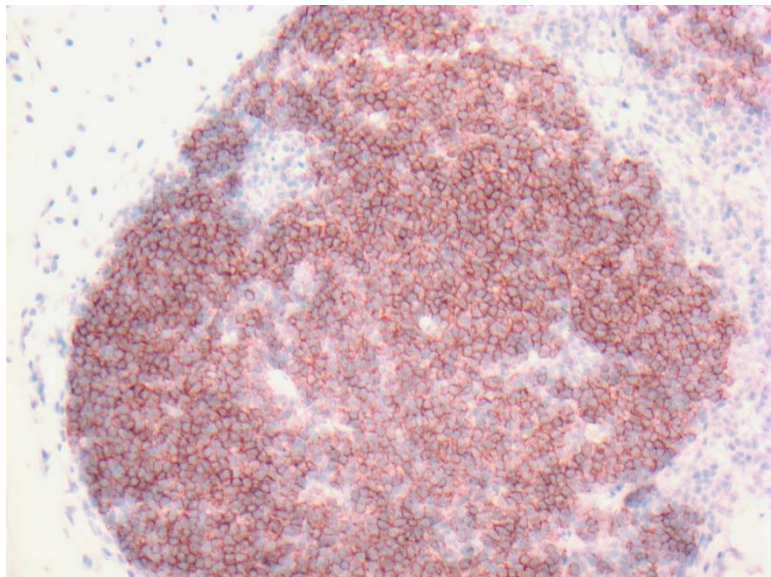


Fig. 5 CD10

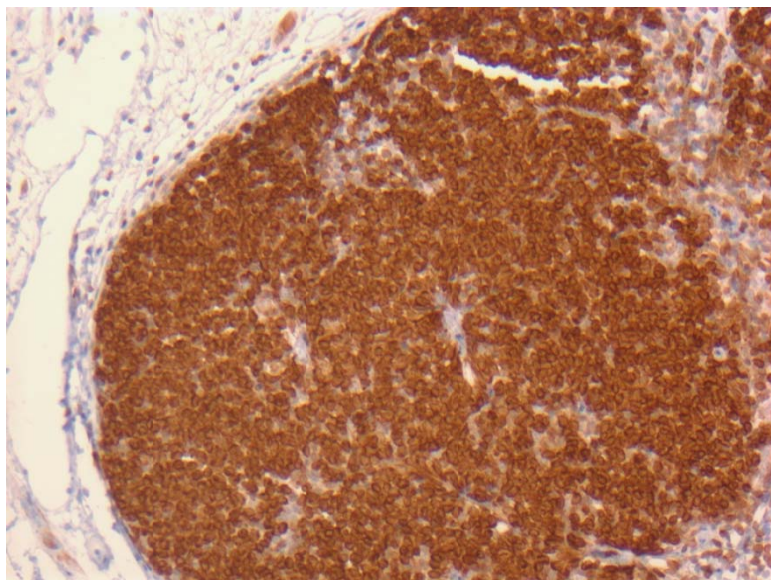


Fig. 6 BCL-2

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