Envoi SPECIALIST PATHOLOGISTS *inside insights*

Update No.1 - 2017 *Dr Mark Bettington*

Primary GI Follicular lymphoma

Definition: A B-cell lymphoma composed of germinal centre B-cells with a follicular pattern and confined to the bowel.

Note: Over 90% of cases are confined to the small bowel, in particular the duodenum. Isolated large bowel disease is unusual.

Epidemiology: The incidence is unknown. Women are affected more often than men (up to 5:1).

Clinical presentation: Primary intestinal follicular lymphoma is usually an incidental finding at upper endoscopy. The endoscopic appearance is of multiple small white patches/polyps, mostly in D2.

Histology: There is a marked increase in lymphoid cells in the lamina propria, with conspicuous follicle formation (Fig. 1). The infiltrate is typically monotonous and composed of small lymphocytes

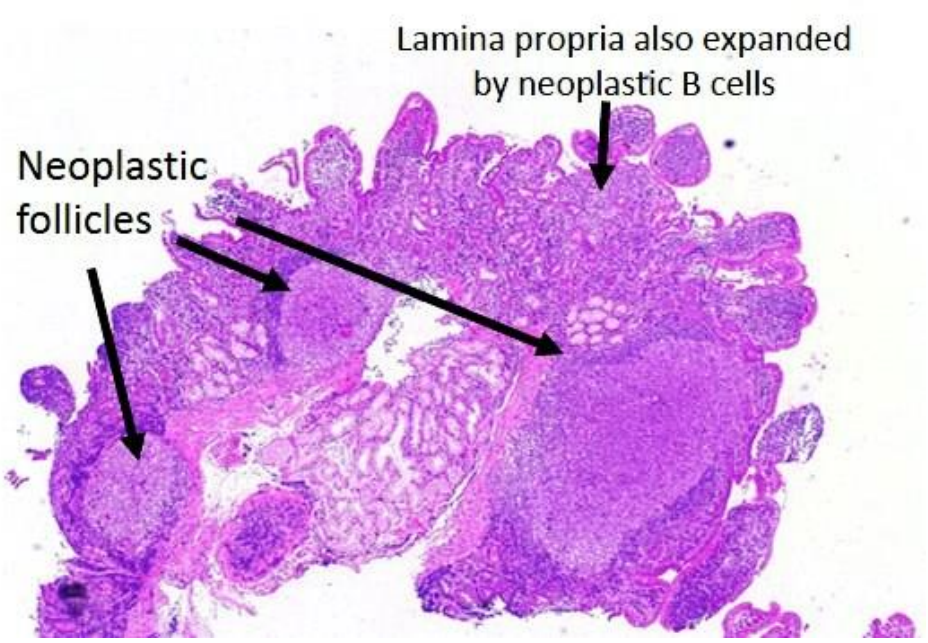

Fig. 1

Grading: Grading is performed in the same fashion as for systemic follicular lymphoma and is dependent on the number of centroblasts present in the follicles/high power field (HPF): Grade 1 - 0-5 centroblasts/HPF; Grade 2 - 6-15 centroblasts/HPF; Grade 3A - >15 centroblasts/HPF with centrocytes present; Grade 3B - >15 centroblasts/HPF with solid sheets of centroblasts in the follicles.

Sheets of centroblasts in the inter-follicular regions indicates transformation to diffuse large B cell lymphoma.

Immunophenotype: Follicular lymphomas typically stain positively for CD20, CD10, Bcl2 and Bcl6 (Fig. 2).

Fig. 2

Differential diagnosis: The major differential diagnosis is with reactive lymphoid hyperplasia. In most cases the immunophenotype can easily distinguish these two processes (Fig. 3). It is also prudent to exclude other types of small B-cell lymphoma at the time of initial diagnosis.

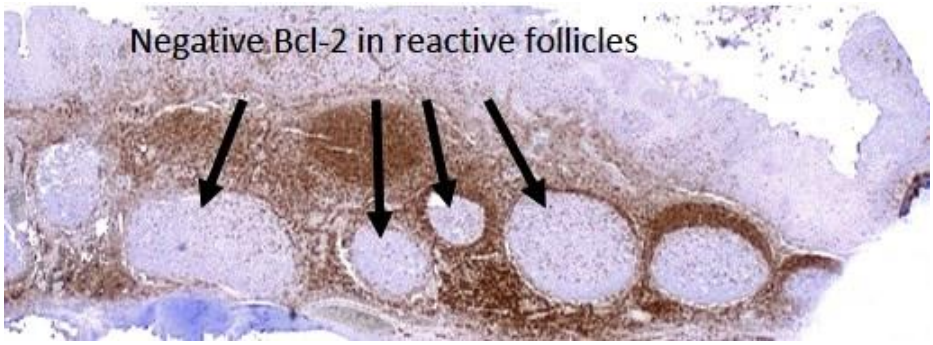

Fig. 3

Staging: Formal staging after a diagnosis of follicular lymphoma in the bowel is mandatory. Primary intestinal follicular lymphoma and involvement by systemic follicular lymphoma are histologically indistinguishable and the distinction can only be made after staging has excluded disease outside of the bowel. Approximately half of new diagnoses will demonstrate systemic disease.

Prognostic factors: Male gender and "B" symptoms are associated with systemic disease. Involvement of the second part of the duodenum is associated with a better prognosis.

Treatment: A watch and wait strategy can be employed, particularly for low grade disease. Many patients do not progress even without treatment. Indications for treatment are not well defined; therapy can be up-front or initiated if there is disease progression or the patient is symptomatic.

Follow-up: There is no evidence to direct surveillance, however long-term follow-up is required to monitor disease progression. Yearly endoscopy is advocated by some authors.

Disease progression: The likelihood of progression to systemic disease, higher grade follicular lymphoma or to diffuse large B cell lymphoma is quite low. The rate of progression ranges from 5-10% in most studies, with mean follow-up intervals of 3-5 years.

Further reading:

1. Bosman F, Carneiro F, Hruban R et al; WHO Classifiaction of Diseases of the Digestive System. 2010; Chapter 6:108-111
2. Misdraji J, Harris N, Hasserjian R et al; Primary follicular lymphoma of the gastrointestinal tract. Am J Surg Pathol 2011;35:1255-1263
3. Takata K, Okada H, Ohmiya N, et al; Primary gastrointestinal follicular lymphoma involving the duodenal second portion is a distinct entity: A multicentre, retrospective analysis in Japan. Cancer Science 2011;102:1532-1536