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Endoscopic Aspects of Gastric MALT Lymphoma: About 25 Cases

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ABSTRACT
Gastric MALT lymphoma is a low grade neoplasia of slow evolution with a very low metastatic potential. It is strongly associated with Helicobacter pylori (HP) infection. The clinical presentation is poorly specific and its endoscopic aspects are varied, hence the advantage of carrying out systematic per endoscopic biopsies. The endoscopic ultrasound allows to accurately assess the infiltration of lymphoma in the gastric wall. HP eradication is paramount in the management of this type of gastric lymphoma. We studied the endoscopic aspects of gastric MALT lymphomas through a series of 25 cases.

Introduction

Low-grade small-cell gastric lymphoma, developed in mucosal-associated lymphoid tissue (Mucosa Associated Lymphoid Tissue), is an extra-ganglionic lymphoma characterized by an infiltration of the gastric mucosa by monoclonal B lymphocytes [1].

Diagnosis is based on endoscopic biopsies, and endoscopic ultrasound (EUS) data are essential for assessing lesion extension and for post-treatment follow-up [1].

These slow-evolving lymphomas with very low metastatic potential are very often preceded or associated with Helicobacter pylori (HP) infection [1]. It is recognized that the eradication of HP infection is the first step in any treatment because it allows tumor regression in about 60-80% of cases [2, 3].

We studied the different endoscopic aspects of MALT gastric lymphomas through a retrospective series of 25 cases collected in the Medicine B department of the Ibn Sina University Hospital in Rabat Morocco.

Material and Methods

This is a retrospective study of 25 patients with MALT-type gastric lymphoma treated in the Medicine B department of the Ibn Sina University Hospital in Rabat between January 2000 and December 2015. All our patients benefited from a biological assessment, upper fibroscopy with biopsies, pathology and extension assessment including abdominal ultrasonography, endoscopic ultrasound (EUS), and thoracoabdominopelvic CT scan.

Results

These are 15 women and 10 men with an average age of 49 years. The digestive symptoms were dominated by epigastralgia in 80% of cases, dyspeptic syndrome in 40% of cases, impairment of general condition in 16% of cases and digestive haemorrhage in 8% of cases.

The biological assessment revealed a discreet iron deficiency anemia in 8 patients, ie 32% of cases.

Upper endoscopy reported elevated bank gastric ulcerations in 10 cases (40%), a pseudotumoral appearance with large polyploid and ulcerated folds (Figure 1) in 7 cases (28%), and a gastritic appearance with erythematous lesions alternating with whitish areas (Figure 2) in 8 cases (32%).

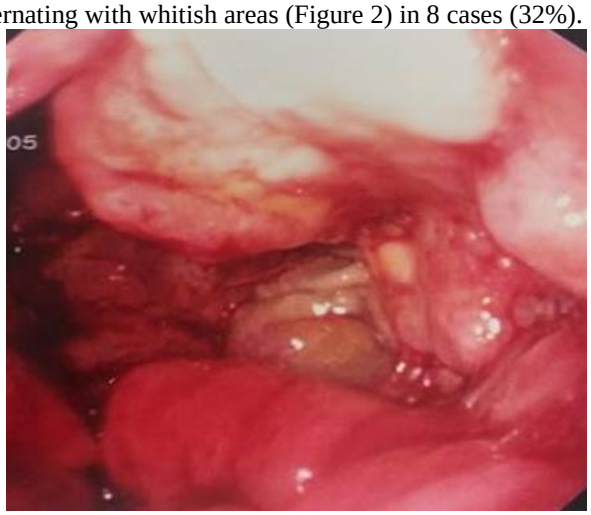

Figure 1. Endoscopic pseudotumoral appearance with large folds of the great fundic curvature.

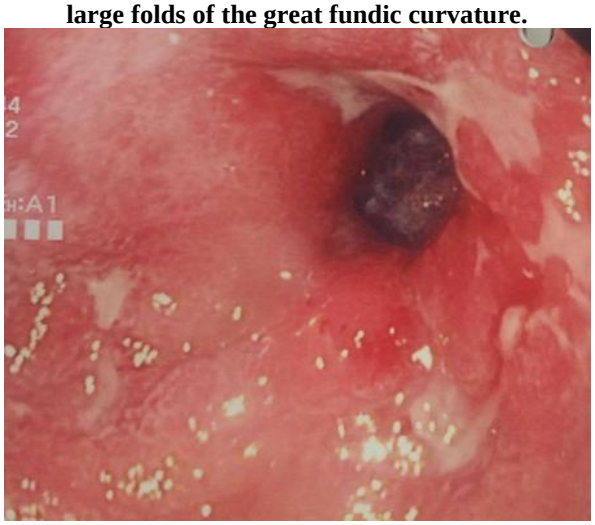

Figure 2. Endoscopic gastritic appearance.

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Histopathological examination confirmed the diagnosis of MALT lymphoma in all cases, by endoscopic biopsy in 80% of cases, intraoperatively in 12% of cases and gastric echo-guided biopsy in 8% of cases.

HP was present in all cases on histological examination of gastric samples.

Abdominal ultrasound revealed gastric thickening in 5 cases (20%). EUS showed a thickening of the gastric wall> 6mm reaching the mucosa and the submucosa in 6 cases (24%) and a moderate thickening between 6mm and 8mm in 8 cases (32%), whereas it was normal in other cases (11cases).

All of our patients had received HP eradication treatment which allowed the regression of MALT lymphoma in 6 cases (24%). The other patients received complementary chemotherapy.

Discussion

Gastric lymphoma remains a rare condition, accounting for only 3% of malignant tumors of the stomach [4]. It is lymphoma of low degree of malignancy, indolent evolution, usually localized that can disseminate or even become lymphoma with a high degree of malignancy [4]. Virtually all gastric lymphomas are derived from B lymphocytes [5]. HP has a proven role in the pathogenesis of MALT lymphoma [6, 7]. However, it has been shown that in less than 20% of these lymphomas, the link with HP has not been found [8,9]. Another bacterium, Helicobacter heilmannii, has been implicated in very rare cases [10]. In our series, all our patients were infected with HP.

In clinical terms, gastric MALT lymphoma has no specific presentation [4]. It is mainly manifested by epigastralgia or a dyspeptic syndrome (80% of our cases), more rarely by digestive haemorrhage (8% of our cases).

The endoscopic aspect is not very specific and in fact can take very different lesional aspects, whoever we can distinguish three main types [1]:

Ulcerated form (60%) with one or more ulcerations found in our series in 40% of cases. The lesion is most often located in the fundus, rarely circular and with a mucosa often altered surface, seat small ulcerations.

Pseudo-tumoral form (5%) with large surface ulcerated folds detected in 28% of our cases (Figure 1). This type of lesion immediately evokes a lesion with malignant potential, but it is not always possible to affirm the lymphomatous or carcinomatous nature of this simple tumoral aspect. These forms generally correspond to high-grade infiltrating lymphomas.

Gastritic form (35%) with simple erythema objectified in 32% of our patients (Figure 2).These lesions are the most misleading because they can be moderate and superficial without ulceration or infiltration. This pseudogastric form generally corresponds to low grade lymphoma.

These three types of endoscopic lesions may be associated in the same patient and their location may be multifocal throughout the gastric cavity [1].

The diagnosis is made most of the time thanks to endoscopic biopsies (95% for endoscopically accessible forms) or more rarely during a surgical procedure, showing the infiltration of the chorion by small lymphoid cells, lymphoepithelial lesions and follicular lymphoid hyperplasia [4].

The EUS appreciates better than the tomodensitometry the parietal extension (sensitivity and specificity: 80 and 100%) and the pathological character of the lymph nodes (sensitivity and specificity: 100 and 70%) [9]. It is therefore a useful examination for the initial evaluation of gastric lymphoma [9].

The comparison with the anatomopathological study of the gastrectomy specimens showed that the EUS can accurately assess the depth of tumor infiltration (91.5% diagnostic accuracy of all types of lymphomas combined in the study by Palazzo et al. [11] and search for regional metastatic lymphadenopathies). On the other hand, the EUS underestimated the tumoral extension on the surface (of 10 cm on average) in 37.5% of the patients having, for 90% of them, a gastric lymphoma of low grade [11]. The EUS, performed during the initial assessment at the same time as the gastroscopy, makes it possible to distinguish three types according to the thickness of the gastric wall [12]:

Type 1 (55% of cases) found in 24% of our patients: gastric wall greater than 6 mm (6 to 12 mm) with infiltration reaching the mucosa alone and/or the mucosa and the submucosa. The fusion of the first three layers that can no longer be individualized is characteristic.

Type 2 (35% of cases): thickening considered moderate with a gastric wall equal to 5 mm, at the expense of the mucosa or the submucosa alone (32% in our series).

Type 3 (10% of cases): normal gastric wall (44% in our study).

The gastric endoscopy coupled with the EUS thus makes it possible to carry out a real cartography of the lesions in order to evaluate the surface extension and the degree of infiltration in depth which is thus a criterion of gravity [9].

Conclusion

The diagnosis of gastric MALT lymphoma is most often made during an endoscopy by the gastroenterologist. The endoscopic aspect is very polymorphic ranging from a simple appearance of gastritis to a pseudo-tumoral aspect. Per endoscopic biopsies allow the diagnosis in the majority of cases and endoscopic ultrasound makes it possible to distinguish the superficial of the infiltrating forms and thus has a major interest in the prediction of the tumor response.

Competing interests

The authors declare that they have no competing interests.

Author contributions

All authors contributed in the development of this publication and approved the final manuscript.

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