Simultaneous MALT-type lymphoma and early adenocarcinoma of the stomach: A case report

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We report a rare case of a 52-year old man who was initially operated for early gastric adenocarcinoma, but was found to have synchronous lymphoma and in situ adenocarcinoma of the stomach on frozen sections, confirmed by postoperative pathological examination. The relationship between these two tumors and the most appropriate methods of diagnosis were discussed. [Turk J Cancer 2002;32(2):75-78]

Key words: Adenocarcinoma, lymphoma, stomach, simultaneous tumors

The majority of malignant tumors of the stomach are carcinomas. It has been reported in the literature that lymphomas consist of 1%-5% of all malignant tumors of the stomach (1). The simultaneous coexistence of adenocarcinoma and malignant lymphoma of the stomach is extremely rare (1-5). Gastric carcinoma and primary gastric lymphoma have shown to be related to Helicobacter pylori infection (3).

We present a rare case with in situ gastric carcinoma and mucosa associated lymphoid tissue (MALT) type gastric lymphoma in a patient with Helicobacter pylori-associated gastritis.

Case Report

A 52-year-old man was admitted to hospital in August 2000 because of weight loss and diarrhea. Physical examination and laboratory data showed no abnormalities.

In gastroscopic examination, there was a suspicious area of gastric carcinoma. Lower gastrointestinal roentgenogram showed flattened villi in small intestine. Multiple biopsies were taken from stomach. Histological examination of biopsy specimens revealed in situ adenocarcinoma.

Subsequently, total gastrectomy and resection of regional lymph nodes were performed and biopsy was taken from small intestine.

Macroscopic examination of stomach disclosed an indistinct irregular depressed lesion in antrum, 2x2 cm in size. Besides, diffuse white granular lesions were seen in mucosa and submucosa. The normal gastric mucosa was seen between the two lesions.
Histological examination of the resected specimen revealed a low-grade MALT lymphoma localized in the mucosa and submucosa and an intramucosal, poorly differentiated adenocarcinoma (Figures 1, 2).

Fig 1. MALT-type lymphoma of the stomach (HE, x100)

Fig 2. View of poorly differentiated adenocarcinoma. Note ill-defined clustering and abortive acinar formation (HE, x250)
The lymph nodes and small intestine were involved by lymphoma. The surrounding non-neoplastic gastric mucosa exhibited a mild to moderate chronic gastritis. A small number of Helicobacter pylori organisms was seen (Figure 3).

Fig 3. Helicobacter pylori within the gland (HE, x1000)

Discussion

Although the simultaneous coexistence of multiple gastric carcinomas is not uncommon, the simultaneous development of carcinoma and malignant lymphoma of stomach is very rare (1-4). In our case, adenocarcinoma and malignant lymphoma coexist, but they are separated macroscopically and microscopically by areas of tumor free gastric mucosa. Thus, this case cannot be classified as a collision tumor, it is considered as a synchronous concurrent tumor.

Unfortunately, in most cases, only carcinoma is diagnosed preoperatively. In our case as well, only the carcinoma was diagnosed preoperatively in the biopsy specimens. In particular, lymphomas may be difficult to detect macroscopically, because they do not always show characteristic endoscopic features (5,6). However, a correct preoperative diagnosis is required to determine the appropriate therapy. Inadequate preoperative diagnosis implicates that an inappropriate therapy may be performed, as carcinoma and lymphoma require different therapeutic regimens (3).

Recent evidences suggest that gastric carcinomas, as well as gastric MALT lymphomas are associated with Helicobacter pylori infection. It may cause simultaneous development of gastric carcinoma and gastric MALT-type lymphoma (7). All carcinomas are irreversible neoplasms, however, some studies have shown the regression of gastric MALT lymphoma after Helicobacter pylori eradication therapy (8,9).
In conclusion, careful gastroscopical examination is required and multiple biopsies should be taken from the suspicious areas and normal looking areas during endoscopy. The possibility of coexistence of the simultaneous tumors especially in the patient with Helicobacter pylori infection should be kept in mind. Despite multiple biopsies, simultaneous tumors may not be caught in endoscopic biopsies.

References