Malignant lymphoma of stomach associated with duodenal carcinoid
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We report a 73-year-old man with diffuse large B-cell lymphoma of the stomach in whom distal gastrectomy specimen revealed coexisting carcinoid tumor of the duodenum. Postoperatively the patient received six cycles of chemotherapy (CHOP regimen) and was asymptomatic nine months later. [Indian J Gastroenterol 2006;25:213-214]

Primary gastric lymphoma is a rare tumor, accounting for less than 5% of primary gastric neoplasms. However it is the commonest extranodal lymphoma, accounting for 4%-20% of cases.1 Carcinoids account for 1.2%-1.5% of all gastrointestinal tumors. Duodenal carcinoids account for 2% of gastrointestinal carcinoid tumors.2 To the best of our knowledge there is only one earlier report describing the association of gastric lymphoma with duodenal carcinoid.3

A 73-year-old man presented with anorexia, nausea, dyspepsia and significant loss of weight for six months. He did not experience vomiting, hematemesis or melena. On examination there was no pallor or icterus. The abdomen was soft and non-tender, with no organomegaly or free fluid. Per rectal examination was normal. Contrast-enhanced CT scan revealed thickening in the pyloro-antral region of the stomach. Endoscopy revealed an irregular polypoid mass in the antrum extending to the duodenum with an overlying ulcer having a clean base. Biopsy from the lesion showed predominantly necrotic tissue with few atypical cells.

The patient underwent distal radical gastrectomy with Billroth II reconstruction, and recovered uneventfully. Examination of the resected specimen showed a 3-cm ulcer in the antrum with firm and raised margins. Distal resection margin from D1 showed a circumscribed dark brown nodule measuring 1.2 cm in greatest dimension. Histology of the ulcer revealed diffuse infiltration of the gastric wall by large atypical lymphoid cells extending up to the muscularis propria; the cells were reactive for CD45 and CD20, and non-reactive for cytokeratin. Sections from perigastric lymph nodes showed similar lymphomatous infiltration. Sections from the distal resection margin of the specimen revealed carcinoid tumor of the duodenum (Fig). On immunohistochemistry the carcinoid tumor showed diffuse positivity for neuron-specific enolase and focal positivity for chromogranin. Postoperatively the patient received six cycles of chemotherapy (CHOP regimen) and was asymptomatic nine months later.

Although the simultaneous occurrence of gastric lymphoma and duodenal carcinoid tumor could be incidental, two hypotheses can be offered to explain this phenomenon. The first is that hypochlorhydria resulting from gastric lymphoma induced secondary hyperplasia, followed by carcinoid tumor of the gastrin-producing endocrine cells. Chronic atrophic gastritis and the surgically excluded antrum are known causes of secondary gastrin-cell hyperplasia acting through a common pathogenic denominator of lack of physiologic negative feedback provided by the hydrochloric acid bathing the antro-pyloric mucosa. The second hypothetical mechanism could be the development of duodenal gastrin-cell carcinoid tumor causing gastrin hypersecretion. A gastric ulcer would then evolve, followed by development of gastric pseudolymphoma progressing to lymphoma.3

Digestive tract carcinoids are often associated with synchronous malignant tumors.4 In most cases, the patients present with features of the primary malignancy, and the carcinoid is an incidental finding. An earlier report had described coexistence of gastric lymphoma with adenocarcinoid of the appendix.5

References

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