

Case Report

One patient with double lymphomas: simultaneous gastric MALT lymphoma and ileal diffuse large B-cell lymphoma

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Abstract: Multiple different lymphomas in a single person are very rare. The author herein reports the case of a 69-year-old Japanese woman with double gastrointestinal lymphoma. The patient presented with epigastralgia. Endoscopic examination revealed erosions and elevation of the gastric body and a large ulcerated tumor of the terminal ileum. Biopsies were obtained from these lesions. The gastric lesion was MALT lymphoma with monocyteoid B-cell proliferation and lymphoepithelial lesions. Light chain restriction was present. Helicobacter pylori were present on Giemsa stain. The gastric lesions did not regress despite of therapy, which were confirmed by follow-up biopsy. The ileal lesion was obvious diffuse large B-cell lymphoma. The lesion regressed by chemotherapy. The patient is now alive 3 years after the first presentation.

Keywords: Double lymphoma, gastric MALT lymphoma, ileal diffuse large B-cell lymphoma

Introduction

Occurrence of multiple lymphomas in a single person is extremely rare event [1]. The author herein reports a case of gastrointestinal double lymphomas.

Case report

A 69-year-old Japanese woman consulted to our hospital because of epigastralgia. A blood laboratory data showed no significant changes. Abdominal echo test revealed wall thickening of the terminal ileum. Upper gastrointestinal endoscopy revealed multiple small elevations and erosions in the stomach body, and multiple biopsies were performed. The lower gastrointestinal endoscopy showed a large ulcerated tumor in the terminal ileum, and biopsy was performed. The gastric biopsy revealed proliferation of small lymphoid cells in the mucosa and submucosa (**Figure 1A**). The lymphoid cells were small, and resembled centrocytes and monocytes (**Figure 1B**). Plasma cell differentiation was present in places. Helicobacter pylori were present on Giemsa stain. The lymphoid cells

showed destructive growth, involving mucosal glands, muscularis mucosa, and submucosa. The muscularis mucosa was fragmented (**Figure 1A**). Obvious lymphoepithelial lesions were scattered (**Figures 1A, 1B, and 1C**). An immunohistochemical study was conducted with the use of Dako Envision method, as previously described [3, 4]. Immunohistochemically, the lymphoid cells were negative for cytokeratin, CD30, p53, but positive for CD45, CD20 (**Figure 1D**), CD3 (focal). κ -chain (**Figure 1E**) predominated over λ -chain. Ki-67 labeling was 5% (**Figure 1F**). The pathological diagnosis was MALT lymphoma.

In the terminal ileum biopsy, monotonous lymphoid cell proliferation was seen. The lymphocytes were monotonous and composed of large cells with nucleoli (**Figure 2A** and **2B**). Immunohistochemical examination showed positive reactions to CD45, CD20 (**Figure 2C**), and p53 protein (**Figure 2D**), but negative reaction to CD3, CD45RO, CD30, and TdT. The Ki67 labeling was 100% (**Figure 2E**). The author diagnosed it as diffuse large B-cell lymphoma (DLBCL). The patient received eradication of Helicobacter pylori and R-CHOP therapy. The

Simultaneous double lymphomas

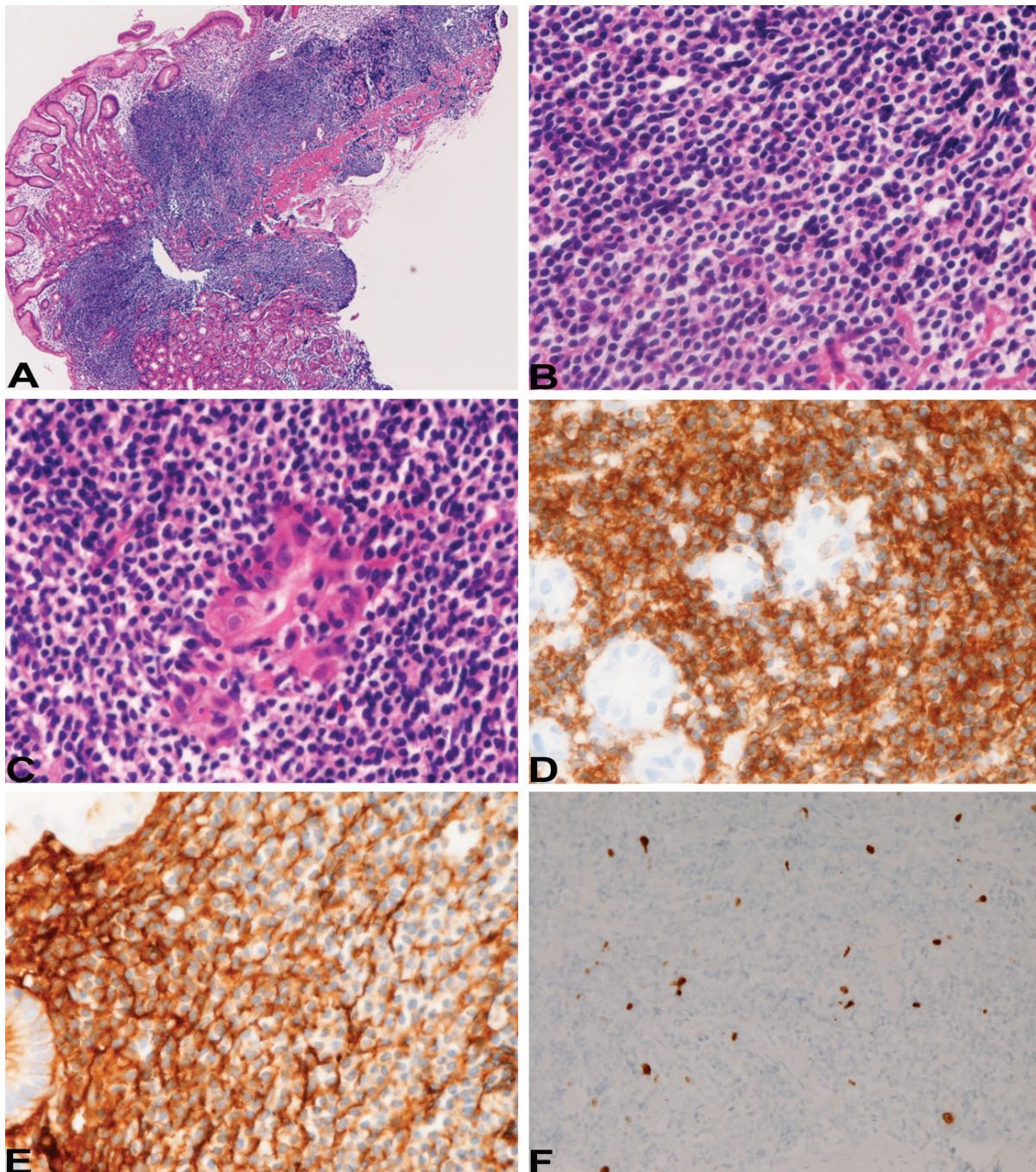


Figure 1. Histology of the gastric lesion. A: Lymphoid proliferation is seen in a gastric biopsy. The lymphoid cells invade destructively the mucosal glands, muscularis mucosa, and submucosa. HE, x4; B: Higher power view shows that the lymphoid cells are small monocyte-like cells. HE, x200; C: Lymphoepithelial lesions are seen. HE, x200; D: The lymphoid cells are positive for CD20, x200; E: The lymphoid cells are positive for fork-chain, x200; F: The lymphoid cells show Ki-67 antigen (labeling =5%), x100

ileal lesion was reduced but stomach lesions were not completely regressed, and multiple

follow-up biopsy revealed MALT lymphoma similar to the original biopsy. The patient is now

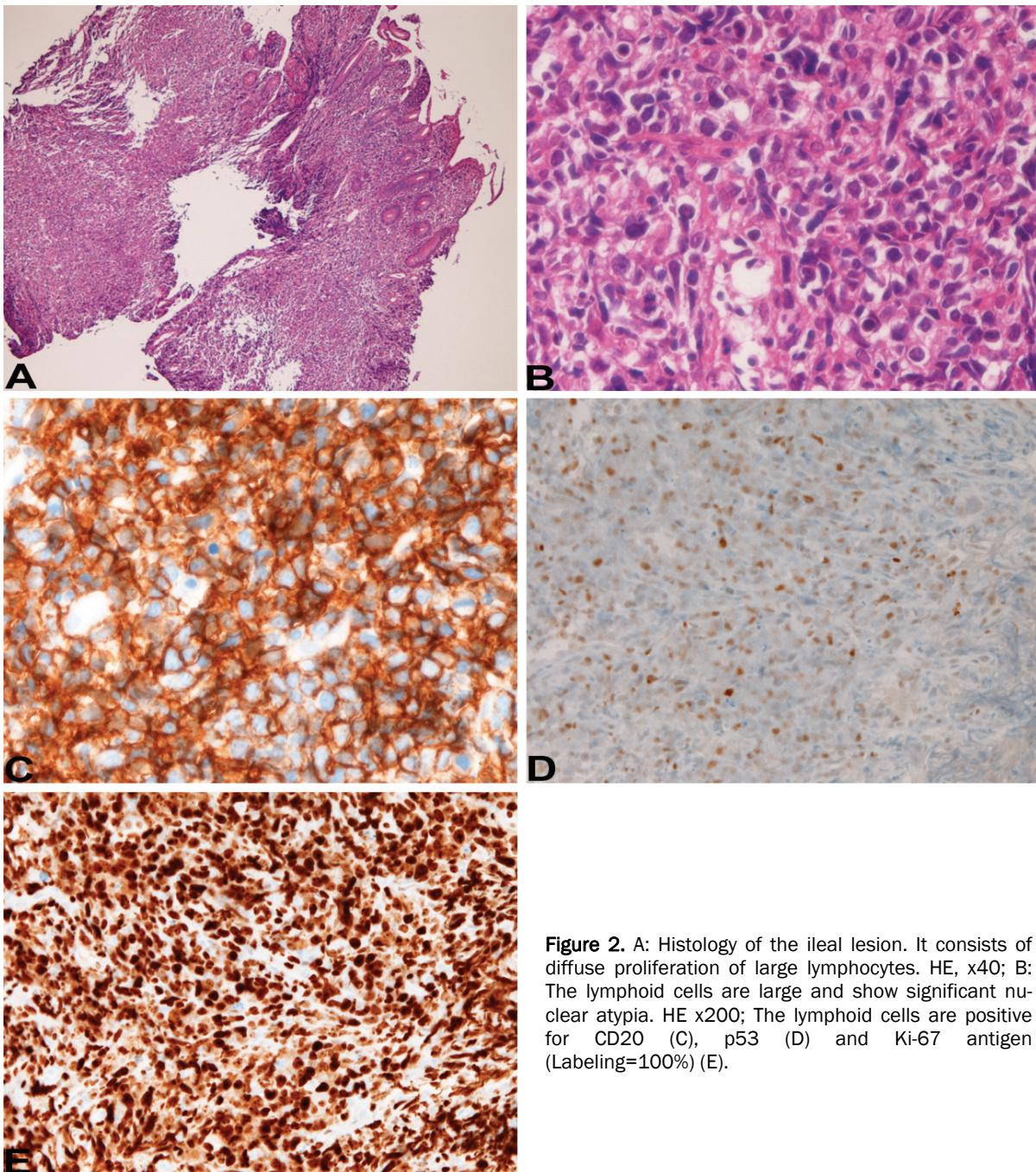


Figure 2. A: Histology of the ileal lesion. It consists of diffuse proliferation of large lymphocytes. HE, x40; B: The lymphoid cells are large and show significant nuclear atypia. HE x200; The lymphoid cells are positive for CD20 (C), p53 (D) and Ki-67 antigen (Labeling=100%) (E).

alive 3 years after the first presentation.

Discussion

Different multiple lymphomas in a single person is very rare, to the author's knowledge. A review of the English literature revealed one such case [1]. Tang et al [1] reported gastric MALT lym-

phoma and duodenal follicular lymphoma in one patient.

The gastric lesion in the present study appears MALT lymphoma [2]. The centrocyte-like cells and monocyteid cells are in favor of MALT lymphoma. Plasma cell differentiation is also compatible with MALT lymphoma. CD3-positive lym-

phocytes were scattered, but they may be inflammatory cells. The neoplastic lymphoid cells invaded the gland and muscularis mucosa destructively, being compatible with MALT lymphoma. Apparent lymphoepithelial lesions seen in this case are in favor of MALT lymphoma. Immunohistochemically, predominant cells were B-cells, being compatible with B-cell neoplasm. κ-chain predominated over λ-chain, suggesting light chain restriction. Ki67 labeling was 5%, indicating relatively low proliferative activity. Based on these findings, the stomach lesion seems MALT lymphoma. Follow-up biopsies did not show DLBCL transformation of the stomach lesion.

In contrast, the ileal lesion is obviously DLBCL [2]. It showed large ulcer, and the histology was composed of large neoplastic B-cells. The positive p53 protein and high Ki-67 labeling (100%) indicates that it was a malignant B-cell tumor different from the gastric MALT lymphoma.

In summary, the author presented double lymphomas in a single patient.

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References

- [1] Tang Z, Jing W, Lindeman N, Harris NL, Ferry JA. One patient, two lymphomas: Simultaneous primary gastric marginal zone lymphoma and primary duodenal follicular lymphoma. *Arch Pathol Lab Med* 2004; 128: 1035-1038.
- [2] Jaffe ES, Harris NL, Stein H, Vardiman JW eds. WHO Classification of tumour. Pathology and Genetics of tumors of hematopoietic and lymphoid system. IARC Press, Lyon, 2001.
- [3] Terada T, Kawaguchi M, Furukawa K, Sekido Y, Osamura Y. Minute mixed ductal-endocrine carcinoma of the pancreas with predominant intraductal growth. *Pathol Int* 2002; 52: 740-746.
- [4] Terada T, Kawaguchi M. Primary clear cell adenocarcinoma of the peritoneum. *Tohoku J Exp Med* 2005; 206: 271-275.