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IMAGE | STOMACH

Primary Gastric Follicular Lymphoma Presenting as a Submucosal Tumor

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CASE REPORT

A 59-year-old man was referred for the detailed examination of a gastric submucosal tumor (SMT) that had gradually enlarged from a previous examination 4 years ago. There were no subjective symptoms. No superficial lymph node swelling or abnormal physical findings were observed. Examination of peripheral blood showed a white blood cell count of 5,650/μL, and no atypical lymphocytes were found. The level of soluble interleukin-2 receptor was 311 U/mL. Anti-*Helicobacter pylori* immunoglobulin G antibody was positive.

Contrast-enhanced computed tomography revealed a homogeneously contrasted tumor with a size of 30 mm in the gastric corpus. No extramural invasion or lymphadenopathy was noted. F-18 fluorodeoxyglucose–positive emission tomography/computed tomography showed an accumulation of SUVmax 3.80 in the same lesion, but no other significant accumulation was noted.

Esophagogastroduodenoscopy revealed an SMT with erythema and bridging folds on the anterior wall of the gastric corpus (Figure 1). Endoscopic ultrasonography revealed a heterogeneous hypoechoic mass in the submucosa (Figure 2). A fine-needle aspiration biopsy was performed, but sufficient specimens for diagnosis could not be obtained.

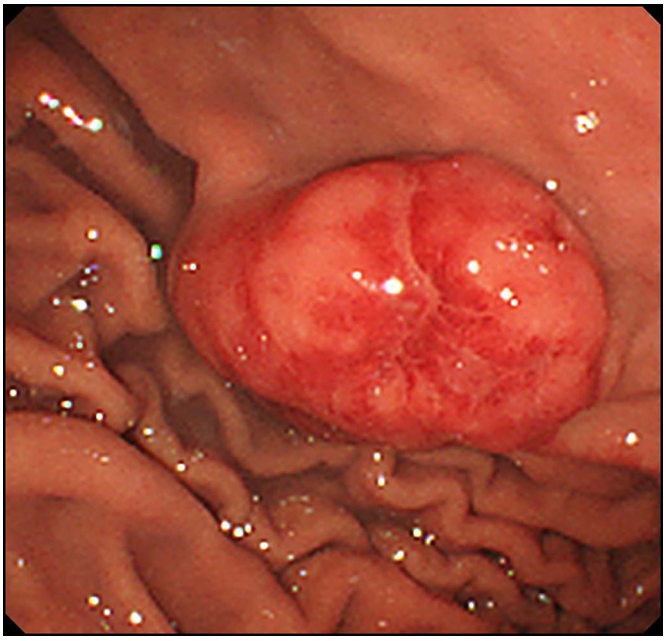

Figure 1. Esophagogastroduodenoscopy revealed a submucosal tumor with redness on the anterior wall of the gastric corpus.

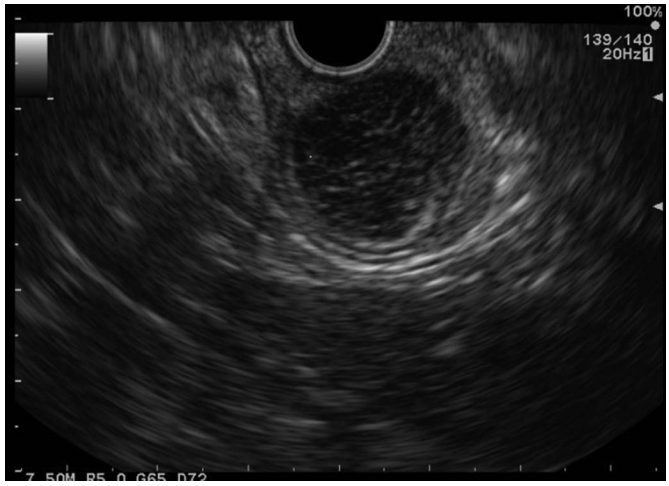

Figure 2. Endoscopic ultrasonography revealed a heterogeneous hypoechoic mass in the submucosa.

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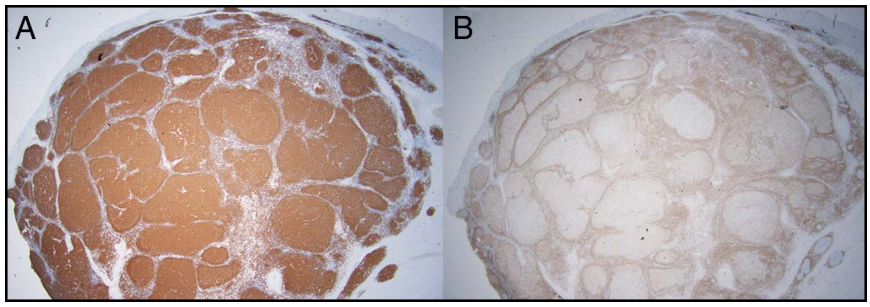

Figure 3. Histopathological finding showing (A) CD20 and (B) bcl-2.

Laparoscopic partial gastrectomy was performed to confirm the diagnosis. The histopathological diagnosis was follicular formation consisting of medium-sized lymphocytes from the lamina propria to the submucosa. Immunostaining was positive for CD10 and CD20 and negative for bcl2, CD3, CD5, and cyclinD1 (Figure 3). The patient was diagnosed as having bcl2-negative follicular lymphoma (FL). Fluorescent in situ hybridization showed negative t(14; 18)/IGH-BCL2 translocations.

FL has been reported at a frequency of 9.3% among gastrointestinal malignant lymphomas.[1] Localization is most common in the small intestine, and primary gastric FL is extremely rare at 1.6%.[2] Multiple white nodular lesions are often observed in small intestinal FL, but SMT-like elevated lesions are also reported in gastric FL as in this case.[3] Endoscopic submucosal dissection may be selected for histologic diagnosis.[4] Although FL is known to have t(14:18) chromosomal translocation, the positive rate in gastric FL is less frequent than that in nodal FL and small intestinal FL.[5] Gastric FL is a rare disease, and its macroscopic and pathophysiologic findings are different from those of FL in the small intestine.

DISCLOSURE

Author contributions: A. Goto wrote the manuscript and is the article guarantor. J. Nishikawa and I. Sakaida edited the manuscript.

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REFERENCES

1. Nakamura S, Matsumoto T. Gastrointestinal lymphoma: Recent advances in diagnosis and treatment. *Digestion*. 2013;87(3):182–8.
2. Takata K, Okada H, Ohmiya N, et al. Primary gastrointestinal follicular lymphoma involving the duodenal second portion is a distinct entity: A multicenter, retrospective analysis in Japan. *Cancer Sci*. 2011;102(8): 1532–6.
3. Norimura D, Fukuda E, Yamao T, et al. Primary gastric follicular lymphoma manifesting as a submucosal tumor-like lesion. *Dig Endosc*. 2012; 24(5):389.
4. Fujimoto A, Akimoto T, Nakayama A, et al. A Gastric follicular lymphoma presenting as a submucosal tumor with a diagnosis determined by endoscopic resection. *Intern Med*. 2018 57(13):1849–53.
5. Takata K, Sato Y, Nakamura N, et al. Duodenal follicular lymphoma lacks AID but expresses BACH2 and has memory B-cell characteristics. *Mod Pathol*. 2013;26(1):22–31.