

Clinical Image

Gastric Schwannoma with Regional Lymphadenopathy Diagnosed by Endoscopic Ultrasonography-Guided Biopsy

Kim SK¹, Fujii Y¹, Fujii T¹, Yuasa K¹, Takami M¹, Okuda T¹, Hayakumo T¹, Kobayashi H², Koma Y³ and Kim SR^{1*}

¹Department of Gastroenterology, Kobe Asahi Hospital, Kobe, Japan

²Department of Radiology, Kobe Asahi Hospital, Kobe, Japan

³Division of Pathology, Department of Pathology, Kobe University Graduate School of Medicine, Kobe, Japan

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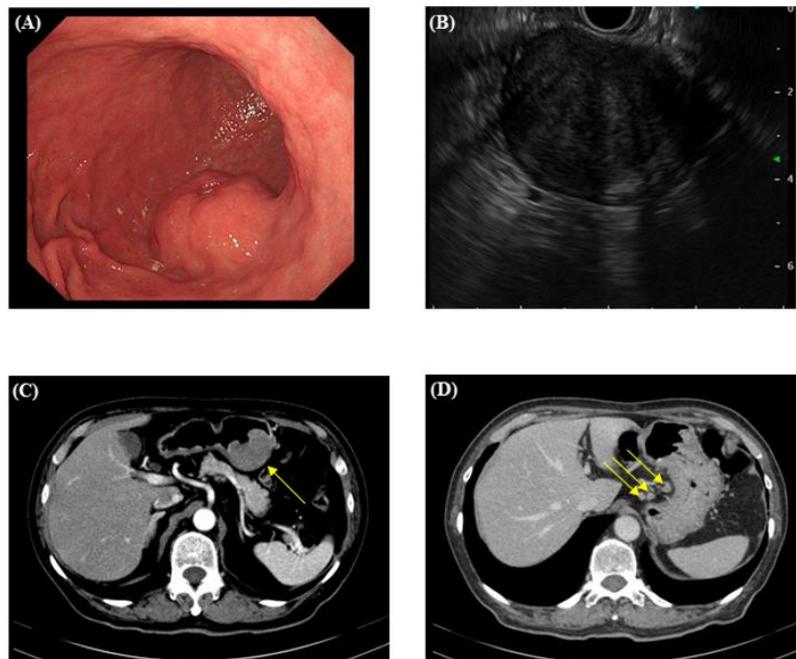
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***Corresponding author:**

Soo Ryang Kim, Department of Gastroenterology, Kobe Asahi Hospital 3-5-25 Bouou-ji-cho, Nagata-ku, Kobe, 653-0801, Japan, Tel: +81-78-612-5151; Fax: +81-78-612-5152, E-mail: asahi-hp@arion.ocn.ne.jp

1. Clinical Image

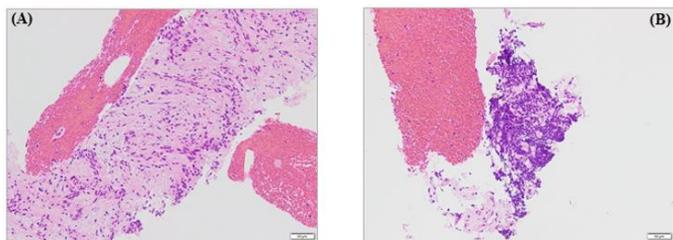
A 71-year-old man, referred to our hospital, presented with a 5×5 cm gastric submucosal tumor with central ulceration at the greater curvature of the lower body as disclosed by upper gastrointestinal endoscopy and endoscopic ultrasonography (EUS). A contrast-enhanced computed tomography scan of the abdomen revealed a 5×5 cm mass in the stomach and enlargement of regional lymph nodes (Figure 1A, B, C, D). EUS guided biopsy was carried out. Histopathological examination revealed spindle-shaped cells arranged in a trabecular pattern, and infiltration of crushed lymphoid cells (Figure 2A, B). The biopsy specimen was positive for S-100 protein, but negative for SMA, c-kit, and CD34 (Figure 2C). The tumor was diagnosed as gastric schwannoma. Considering the possibility of malignancy attribute to old age and regional lymph node enlargement, a partial laparoscopic gastrectomy and dissection of regional lymph nodes was carried out. The submucosal tumor measuring 50×50×35 mm was resected (Figure 2D). The absence of tumor cells in the resected regional lymph nodes indicated reactive lymphadenopathy. The patient has shown no recurrence at two-month follow-up.



Figures 1: A. Upper gastrointestinal endoscopy showing a submucosal 5×5 cm elevated tumor with ulceration at the greater curvature of the lower body of the stomach.
 B. Endoscopic ultrasonography image showing a well defined heterogeneously hypoechoic mass with marginal halos, but without internal echogenic foci arising from the proper muscle layer of the stomach.
 C. CT image showing a protruded lesion in the stomach.
 D. CT image showing enlarged regional lymph nodes.

***Author Contributions:** Kim SK, Fujii Y, These authors contributed equally to this work.

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(Figure 2A, B): A. HE staining showing spindle-shaped cells arranged in a trabecular pattern.

B. HE staining showing infiltration of crushed lymphoid cells.

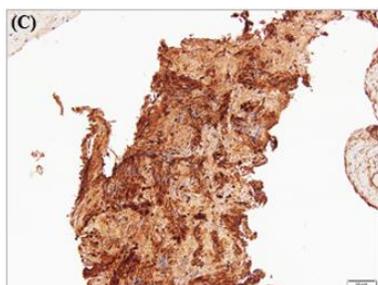


Figure 2C: Immunohistochemical staining showing positivity for S-100 protein.



Figure 2D: Resected tumor measuring 5×5×3.5 cm with the cut surface showing a firm yellowish white tumor.

Schwannoma is rare in the stomach, occurring with a frequency similar to that of leiomyoma. These tumors often occur in older adults, and form intramural masses of 2-10 cm that can ulcerate and present in a manner similar to GIST, gross features included. But they can be distinguished from GISTs since they are negative for KIT and DOG1, and usually also for CD34 [1].

Several studies have described EUS characteristics of gastric schwannoma [2, 3]: it is a round homogenous mass that usually localizes in muscularis propria, with marginal halos, but without internal echogenic foci [4]: it sometimes exhibits heterogeneously hypoechoic lesions with lower echogenicity compared with the surrounding normal proper muscle layer [5].

EUS guided biopsy was effective in diagnosing gastric schwannoma in the present case.

2. Acknowledgments

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