

A case of a peculiarly shaped gastrointestinal stromal tumor

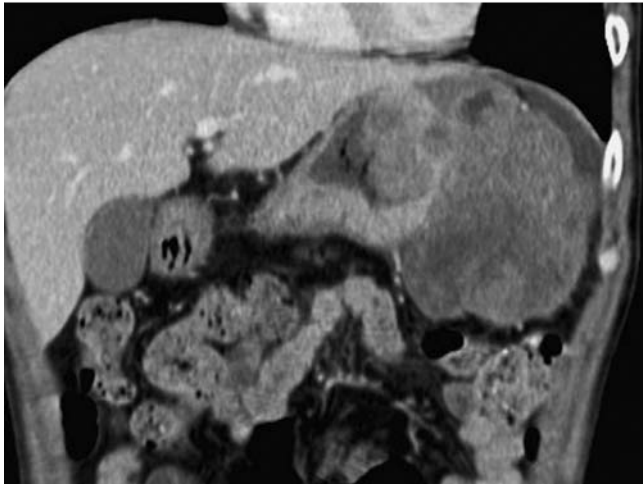


Fig. 1 Enhanced computed tomography (CT) scan of the abdomen showing an irregularly enhancing mass with central necrosis. The mass was 12 × 10 cm in size and extending from the stomach lumen to the external surface of the wall of the upper part of the stomach.

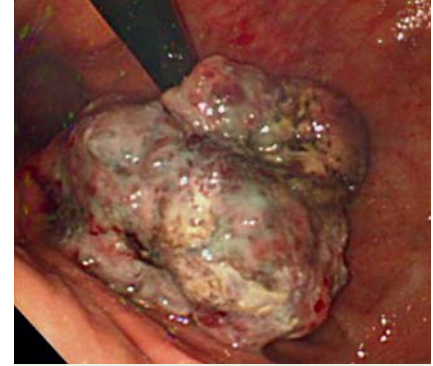


Fig. 2 Gastrointestinal endoscopy showed a snowman-shaped tumor, about 5 cm in diameter, located on the lesser curvature of the upper gastric body just below the gastric cardia.



Fig. 3 Gross appearance of the resected specimen. Tumor was 14 × 11 × 10 cm with areas of necrosis and bleeding in the solid parenchyma.

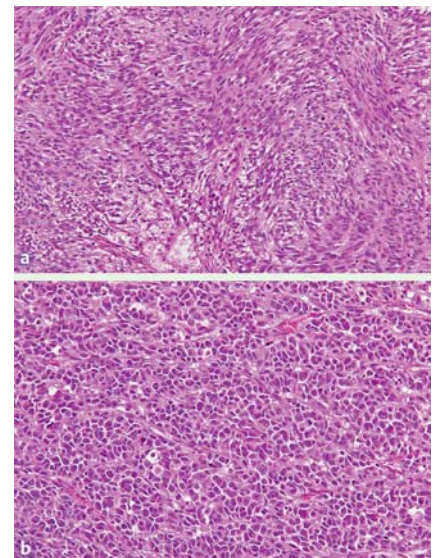


Fig. 4 Photomicrographs of the resected specimen showing: **a** spindle-shaped tumor cells (90%); and **b** round cells (10%) (Hematoxylin and eosin, magnification × 500).

A 67-year-old man presented at our hospital after having been diagnosed with severe anemia at a regular check-up. He had a history of tarry stool lasting for 1 month. Physical examination revealed abdominal distension with a firm palpable mass in the upper abdomen. Initial laboratory data showed severe anemia that needed emergency admission. An enhanced computed tomography (CT) scan revealed a 12 × 10 cm, irregularly enhancing mass with central necrosis extending from the stomach lumen to the external surface of the upper gastric wall (● Fig. 1). There was no nodal or distant metastasis evident on the CT scan. Gastrointestinal endoscopy revealed a snowman-shaped

tumor, about 5 cm in diameter, on the lesser curvature of the upper gastric body just below the gastric cardia (● Fig. 2). The surface of the tumor was irregular, relatively soft, and bled easily. There were no ulcers or erosions. Total gastrectomy was carried out and the tumor was completely resected. On gross examination the solid parenchyma of the tumor, which measured 14 × 11 × 10 cm, showed focal areas of necrosis and bleeding (● Fig. 3). Microscopically the tumor consisted of spindle-shaped tumor cells (90%) and round cells (10%) (● Fig. 4), and no lymph node metastasis was found. Immunohistochemical studies revealed that the tu-

mor cells were positive for c-kit, CD34, vimentin, and α-smooth-muscle actin (α-SMA; partial), but negative for S-100 (● Fig. 5).

The labeling index (Ki-67) was about 50%–60%. On the basis of these results, the tumor was diagnosed as a gastrointestinal stromal tumor (GIST) at high risk for malignancy.

Although GISTs are the most common mesenchymal tumors of the gastrointestinal tract [1], it is rare to find a snowman-shaped GIST, such as the one in the pres-

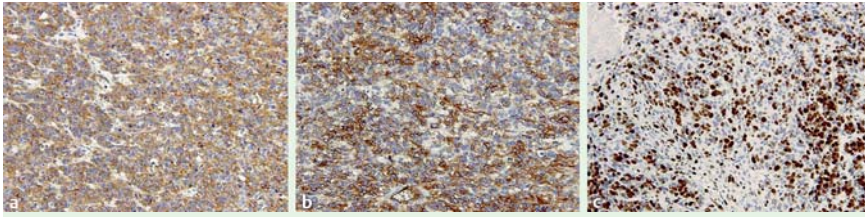


Fig. 5 Immunohistochemical staining showing a positive signal for **a** c-kit and **b** CD34 (magnification $\times 500$). **c** The labeling index (Ki-67) was 50%–60%.

ent case, on gastrointestinal endoscopy. Malignant potential of the tumor is predicted based on its size and mitotic activity [2]. Our patient presented with a peculiarly shaped GIST with high risk for malignancy that needed careful and long-term follow-up to monitor for signs of local recurrence or distant metastasis.

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Bibliography

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