

CASE OF GASTRIC SCHWANNOMA

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Introduction

Gastrointestinal mesenchymal tumors are a group of tumors originated from the mesenchymal stem cells of the gastrointestinal tract, consisting of gastrointestinal stromal tumors (GIST), leiomyomas or leiomyosarcomas, and schwannomas.¹

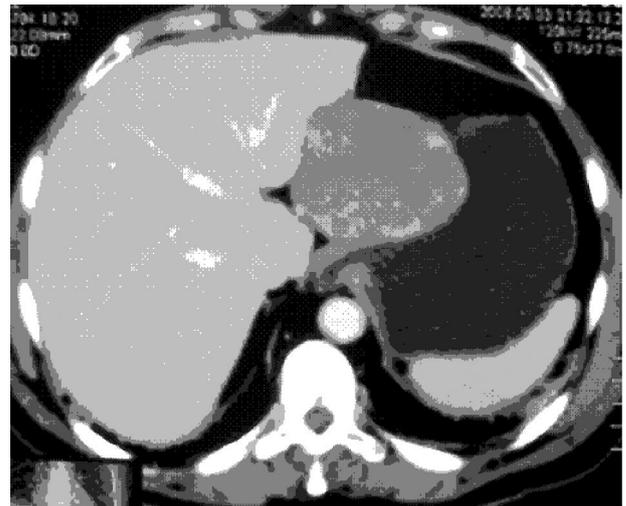
According to histological pictures, these tumors present in the spindle shape. They were traditionally considered to be of smooth muscle origin. In the past, these tumors were diagnosed as leiomyoma, leiomyosarcoma or leiomyoblastoma. However, different diagnoses have been made recently.²

Case History

A 45 -year-old man was referred to our hospital with a recent history of a small amount of hematemesis. The patient had been well until 2 year earlier, when a small amount of hematemesis epigastric pain, occasional nausea and heart burn Although administration of a histamine-2 receptor blocker relieved his symptom, He had no special medical history. Her vital signs were normal. Only slight tenderness was shown in the epigastrium Outside our hospital he also got ultrasound done which revealed a gastric mass later on he develop hematesis and black stool. An endoscopic (outside AKU) study revealed an elevated lesion measure 5 cm X 4.5 cm covered with normal mucosa in the body of the stomach . Biopsy specimens obtained then she referred to our hospital. Laboratory tests hypochromic microcytic anemia.

Arterial phase contrast enhanced computed tomography (CT) revealed an round and homogenous low-density mass in the body of the stomach. It also

revealed the gastric mucosa enhancing to a greater degree than the mass, highlighting its submucosal layer or muscularis propria layer origin. Neither cystic changes nor calcifications were seen in the mass. Considering the possibility of recurrent bleeding and malignancy due to the relatively large size of the tumor, partial resection of the stomach was performed. On gross examination, the resected specimen contained a sphere-shaped submucosal tumor, which measured 4.9 × 4.5 cm. Histopathologic examination of the resected specimen showed a spindle cell neoplasm. No malignant findings, including lymph node involvement, were found. Immunohistochemically, the histopathologic, immunohistochemical features were consistent with a benign gastric schwannoma.



Discussion

Gastric schwannoma is a very rare gastrointestinal mesenchymal tumor, which represents only 0.2% of all gastric tumors and 4% of all benign gastric neoplasms.³

When gastrointestinal schwannoma occurs, the most common site is the stomach.⁴ We report a case of gastric schwannoma located in the high body of the

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stomach. Gastric mesenchymal tumors can be divided into gastrointestinal stromal tumor, leiomyoma or leiomyosarcoma, or schwannoma. Their cellular structures are of spindle shape and look similar under light microscopic examinations. By the aid of immunohistochemical staining, Sarlomo-Rikala⁵ and Christopher⁶ reported the differences between these spindle cell tumors.

It is the most common peripheral nerve-sheath tumor and usually solitary. Gastric schwannomas arise from the nerve sheath of Auerbach plexus or, less commonly, Meissner plexus. They are slowly-growing encapsulated tumors composed of Schwann cells in a collagenous matrix. As the tumor enlarges, it displaces the nerve to the periphery of the tumor, preserving neural function. Gastric schwannomas occur more frequently in the fifth to sixth decade of life and commonly in female patients.^{5,7}

They are often asymptomatic and can be discovered incidentally at laparotomy or radiographically. The most common presenting symptom is an episode of upper gastrointestinal bleeding. In Burneton review series, most patients presented with bleeding, followed by abdominal pain.⁸ Hemorrhage is thought to be secondary to the emerging submucosal mass producing a tenuous blood supply to the gastric mucosa. The mucosa overlying the mass may then ulcerate secondary to ischemia, or form a reduced tolerance to the gastric acidity.⁹

When patients suffer from upper gastrointestinal bleeding, endoscopic examination is the procedure of choice for evaluations.⁸

Chest radiography should be taken to detect extra-gastric pulmonary lesions. Occasionally, gastric tumor can be found in the chest radiography. Upper gastrointestinal series with barium contrast is a useful tool to localize the lesion with relationships to the esophagus and stomach.

Computerized tomography can demonstrate the extent of invasion and help to determine the appearance of a benign versus malignant lesion. On CT it appear to be well defined submucosal mass like lesion with diffuse enhancement⁸ Sonography depicted a homogenously hypoechoic mass.⁹ The overall signal pattern was low on T1 weighted images and moderate to markedly elevated on T2 weighted images. Post-gadolinium sequences demonstrate slow but fairly uniform enhancement throughout the mass.¹⁰ Surgical resection, including wedge resection, subtotal

resection or near-total resection, is the treatment of choice for gastric schwannoma. Complete resection of the tumor is proper.¹¹

Conclusion

In conclusion, we report a case of gastric schwannoma. Evaluation of it's computed tomography appearance in focusing on the tumor's size, layer origin, and enhancement pattern may contribute to the diagnosis of this entity.

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