Background: A 67-year-old woman presented with acute onset of epigastric discomfort. Clinical history revealed several episodes of nausea during the last 2 years. Laboratory findings were normal. Gastroscopy showed a smooth bulging structure in the antrum with a regular surface.
Work-up

Unenhanced CT scan of the upper abdomen (Fig. 1) includes axial (A) and coronal (B) views which show a well-defined, non-calcified mass of 6 cm in diameter located within the gastric antrum. The mass has a homogeneous density.

Contrast-enhanced CT scan (Fig. 2) (axial (A) and coronal (B) view) demonstrates an avidly enhancing gastric antral mass following intravenous contrast administration. No fat stranding nor adenopathies are seen.

Radiological diagnosis

The woman underwent Billroth II gastric resection. Histopathologic diagnosis revealed glomus tumor of the stomach.

Differential diagnosis included adenocarcinoma, (MALT) lymphoma, mesenchymal tumor, carcinoid tumor and ectopic pancreatic tissue

Discussion

A glomus tumor is a mesenchymal tumor that originates from the neuromyoarterial glomus bodies. A neuromyoarterial glomus is an arteriovenous shunt, having a temperature regulating function. A glomus tumor consists of vascular channels lined by normal endothelium, surrounded by glomus cells. Glomustumors may occur anywhere in the body. The most frequent location of a glomus tumor is in the subungual region of the digits. Infrequently, they occur in the viscera, most often in the gastric antrum. These visceral lesions arise in the intramuscular layer and typically occur as a solitary submucosal nodule with or without ulceration. They usually present as an isolated mass of less than 2.5 cm diameter. Metastatic disease has been reported in tumors greater than 5 cm. Usually, visceral glomus tumors remain clinically silent. Sometimes they cause epigastric discomfort, infrequently complicated with gastrointestinal bleeding. Gastric glomus tumors mostly appear in the sixth decade of life, with a male to female ratio of 1/2.5.

Radiologically, gastric glomus tumors have an extensive differential diagnosis, including GIST, carcinoid tumor, lymphoma, lymphangioma and adenocarcinoma. Ectopic pancreatic tissue can also be present at the antrum, although it contains small nodules with central umbilication. On unenhanced CT scan, visceral glomus tumors manifest as well-circumscribed submucosal masses with homogeneous density, sometimes with flecks of calcification. They avidly enhance on post-contrast images.

In case of a solitary, hypervascular submucosal tumor of the antrum, gastric glomus tumor should certainly be included in the differential diagnosis. Correct preoperative diagnosis is difficult. Therefore, glomus tumors require complete resection for adequate treatment and diagnosis.

Bibliography