Synchronous double gastric tumors: GIST or not GIST

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A 41-year-old healthy woman was referred for an upper endoscopy due to epigastric pain. The gastric mucosa was normal but an external pressure on lesser gastric curvature was suspected. Computed tomography and magnetic resonance imaging showed two separated exophytic heavily calcified masses (3.2, 3.8 cm) connected to the lesser gastric curvature wall. Due to the densely calcified texture of the tumors [Figure 1a], they were almost invisible by endoscopic ultrasound (wide acoustic shadowing) [Figure 1b]. A 22-gauge biopsy needle (Medi-Globe GmbH; GERMANY) could hardly penetrate the tumor. Histologic examination of the FNB specimen showed fibrotic tissue with calcification [Figure 1c], positive for CD34 but negative for CD117, DOG1, Desmin and SOX10. With this uncertain nature of the tumors (gastrointestinal stromal tumor [GIST] *vs.* other soft-tissue tumors), the patient underwent partial gastrectomy [Figure 2a]. Pathological examination [Figure 2b] revealed 2 gastric tumors composed of bland-looking spindle cells, hyalinized fibrous stroma, foci of lymphoplasmacytic inflammation with lymphoid follicles formation and prominent calcifications. The tumor cells are positive for Vimentin, focally positive for CD34 and negative for Actin, ALK1, CD117, DOG1, STAT6, and S-100. The findings were diagnostic for benign calcifying fibrous tumor (CFT) of the stomach.

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CFT is a very rare begin fibroblastic tumor with histopathological profile mimicking various spindle cell tumors. The tumor is benign and characterized by a grossly well-demarcated, unencapsulated, lobulated mass with a white cut surface. Microscopically, CFT was identified by the tumor's paucicellular trait and it is containing hyalinized collagen with interspersed dystrophic or psammomatous calcification, and infiltrating inflammatory cells composed of lymphocytes and plasma cells.[1]

For diagnosis, CFT must be differentiated from various other types of tumors. The most important differential diagnoses in intra-abdominal CFT are GIST, leiomyoma, inflammatory myofibroblastic tumor, solitary fibrous tumor, and IgG4-related disease. Due to their heterogeneous symptoms, these tumors are diagnosed based on imaging and pathologic findings, including immunohistochemical staining.[2]

Currently, complete surgical resection is the treatment of choice with excellent prognosis.[3]

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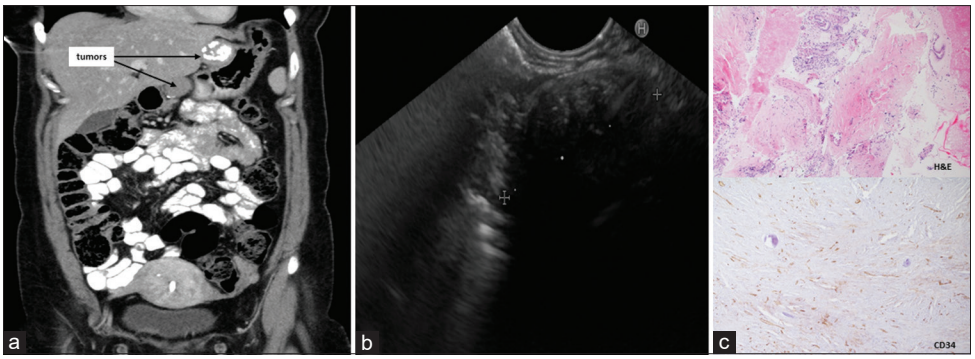

Figure 1. (a) CT image showing 2 gastric tumors. (b) EUS image showing calcified gastric tumor. (c) Histologic examination of the FNB specimen showing fibrotic tissue with calcification, positive for CD34

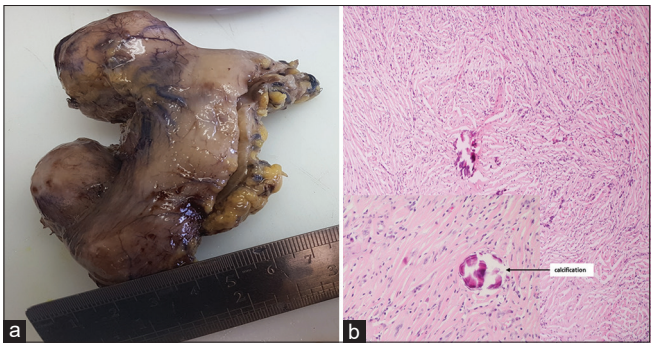

Figure 2. (a) Partial gastrectomy showing 2 gastric tumors. (b) Pathological examination showing gastric tumors composed of bland-looking spindle cells, hyalinized fibrous stroma, foci of lymphoplasmacytic inflammation with lymphoid follicles formation and prominent calcifications

Awareness of the clinicopathologic characteristics of this rare entity and its mimickers contribute to avoiding misdiagnosis and mistreatment in clinical practice.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient has given her consent for her images and other clinical information to be reported in the journal. The patient understands that her names and initials will not be published and due efforts will be made to conceal her identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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