

Case report:

Gastric Glomus Tumor: Report of a Case

Metin Leblebici¹, Cem Ilgin Erol², Ozgur Ekinci³, Tunc Eren⁴, Orhan Alimoglu⁵

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Introduction

Glomus tumors (GT) are rare benign vascular mesenchymal tumors that develop from the glomus body that function as a thermoregulatory control mechanism and are frequently seen in the distal phalanges of the upper extremities¹. In this article, a case of gastric GT with bleeding and gastric outlet obstruction which treated with surgical resection is presented.

Case report

A 42-years-old female patient admitted to our outpatient clinic with complaints of weight loss, melena, fatigue and palpitations for 2 months. When anemia (Hemogram: 5g/dl) was detected on laboratory tests, 2 units of erythrocyte suspension transfusion was performed. Upper gastrointestinal endoscopy was performed and revealed a 20x30mm submucosal lesion located in the prepyloric area, which was evaluated as GIST and biopsy was performed with endoscopic ultrasound. Histopathological evaluation of fine needle biopsy reported as superficial cell fragments. Abdominal computed tomography showed a solid lesion with an intense arterial vascularization of 2.5 cm in size in the gastric antrum (Figure 1). Explorative laparotomy was decided and the patient explored with a 5 cm median incision above the umbilical region. There was a 3x3 cm lesion which was located on posterior prepyloric area of stomach. Wedge resection by linear cutter was performed for

remove of the lesion (Figure2). The patient started to oral feeding on the first postoperative day and was discharged on the fifth day with surgical recovery. On the histopathological evaluation of the resection material, lesion was started under the mucosa and ended at a distance of 1.5 mm to the serosa, located in the muscularis propria, encapsulated, well-limited. After complete immunohistochemical examination (SMA: Diffuse positive; CD34; Focal positive; Collagen IV: Focal positive; Ki67 index: 2-3% and Chromogranin, Synaptophysin, CD117, DOG1, Desmin, Caldesmon, S100, HMB45, Melan A, Cathepsin K, Kalponin: Negative), neuroendocrine tumor and GIS were excluded. Than, lesion was reported as GT.



Figure 1: Abdominal computed tomography image

1. Metin Leblebici
2. Cem Ilgin Erol
3. Ozgur Ekinci
4. Tunc Eren
5. Orhan Alimoglu

Istanbul Medeniyet University, Faculty of Medicine, Department of General Surgery.

Correspondence to: Metin Leblebici, Assistant Professor of Surgery, Department of General Surgery, School of Medicine, Istanbul Medeniyet University, e-mail: drleblebici@yahoo.com, ihsan.leblebici@medeniyet.edu.tr, Istanbul Medeniyet University, Göztepe Training and Research Hospital, 5th floor, Department of General Surgery, Istanbul, Turkiye



Figure 2: Wedge resection material

Discussion

First GT was reported by Masson at 1924. GT is most commonly² located in the subungual region, and it is more common in women than men. The most common complaint is local severe pain and blue discoloration with cold. The lesions are generally benign and local excision is sufficient for treatment¹. Although rare, some malignant GT's have been reported in the literature. GT may be located extra digitally as the upper extremity, lower extremity, head and neck and rarely in the gastrointestinal organs³.

The first GT cases in the stomach were reported by De Busscherat at 1948 and Kay et al. at 1951⁴. Gastrointestinal GT is often located in the stomach and is usually symptomatic at the time of diagnosis, presents with bleeding and ulcer-like symptoms. Gastrointestinal GT is more common in female gender like peripheral located GT, and the average age is 55 years⁵. Approximately 1% of gastric soft tissue tumors are GTs⁶. Although literature shows that GTs are generally symptomatic in later ages, our case was a 42-year-old female patient, younger than literature, with symptoms of bleeding and gastric outlet obstruction.

Gastric GISTs are seen similar rates in both sex and, they are generally asymptomatic at the onset of the disease. As the lesion grows, most often gives signs of abdominal pain and bleeding⁷. Although the lesion was interpreted in favor of GIST by computed tomography, endoscopy and endoscopic ultrasonography in our case, it should be kept in mind that submucosal lesions may originate from different cells in clinical practice.

Although endoscopic fine needle aspiration has been described for the preoperative diagnosis of both gastric GTs and GISTs, the safety and efficacy of endoscopic biopsy in the diagnosis of these tumors according to

the intramural structure of these tumors has not been proven^{7,8}. In our case, endoscopic ultrasonography biopsy didn't able to diagnosis of this lesion. For definitive histopathological differential diagnosis between neuroendocrine tumor, schwannoma, GIST and other mesenchymal tumors, surgical resection should be done. In our case, immunohistochemical examination was performed to exclude other mesenchymal tumors and histopathologically, gastric GT was diagnosed.

Although GTs are generally benign tumors, there have been reports cases with liver and distant metastasis when diagnosed, in the literature. Therefore, surgical resection of the lesion with clear margins should be done⁹. Previous studies have shown that lesions smaller than 2 cm are generally benign¹⁰. In addition, the presence of atypical mitosis, the deep localization of the tumor and the high rate of cell nucleus cytoplasm are other tumor features suggestive of malignant character¹¹. If the suspicion of malignancy is high or diagnosed, gastric cancer is treated as an oncological surgical treatment¹². At the other hand, resection of lesion is important for the definitive diagnosis. The lesion can be resected by endoscopic, laparoscopic or open surgical technique. In our patient, the lesion was removed by open surgical technique and wedge resection was applied. There was no need for a new anastomosis.

In conclusion, gastrointestinal GTs are rarely seen, also they are most commonly located in the stomach. Surgical resection is first step for treatment. Surgical resection material should consider for the differential diagnosis of gastric GISTs.

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Data gathering and idea owner of this study: Metin Leblebici

Study design: Metin Leblebici, Cem Ilgin Erol

Data gathering: Ozgur Ekinci

Writing and submitting manuscript: Cem Ilgin Erol

Editing and approval of final draft: Tunc Eren, Orhan Alimoglu

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