A RARE CASE OF BENIGN GASTRIC TUMOR: GLOMUS TUMOR

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L. Değirmencioğlu, M.D.* / Ö. Günal, M.D.*
U. Çaşkurlu, M.D.* / F.Aker, M.D.**

* *Specialist, Dapertment of General Surgery, Istanbul Police Hospital, Istanbul, Turkey.*
** *Specialist, Department of Pathology, Haydarpaşa Numune Hospital, Istanbul, Turkey.*

ABSTRACT

We present a case of gastric glomus tumor (GGT). It is an unusual benign neoplasm of the stomach which can easily be confused with the other benign tumors such as leiomyoma. In this case report, most prominent diagnostic features of the gastric glomus tumor were reported. We also defined the computerized tomographic features of the GGT for the first time. Local excision of the tumor was carried out as an appropriate procedure for the treatment of the patient.

Key Words: Glomus Tumor, stomach, glomangioma.

INTRODUCTION

Glomus tumor of the stomach is very rare among the benign tumors of the stomach. It is vascular in origin. It is a typical benign tumor with its encapsulated and regular shape (1). Symptoms are due to its space occupying effect in the stomach. It may seem like a malignant mass by the radiodiagnostic technics. We present a very rare case of gastric glomus tumor which was incidentally detected on upper abdominal ultrasonography. We also describe the characteristic computerized tomographic (CT) findings of GGT.

CASE REPORT

A 38-year-old female patient was admitted to the hospital with an epigastric pain and fullness that have been going on for four months. She did not have any other complaint. Physical examination was normal. Hb and Htc values were 10.6 g/dl and 32.8% respectively. Other preoperative laboratory values were normal. Ultrasonographic examination revealed a 35x32 mm, homogeneous, hypoechoic, well circumscribed, solid mass that deformed the pylorus. On gastroscopy, there was a 3x4 cm sized, sessile, regular shaped mass that was located posteriorly on lesser curvature of the stomach. It did not permit a passage to the gastroscope to the duodenum. It was covered with a normal mucosa apart from two tiny ulcerated areas. Seven punch biopsies were obtained from the normal and ulcerated areas of the tumor. Pathologic examination of specimen resulted as reactive changes in gastric mucosa. Computerized tomography showed a 5x3x3 cm sized mass that was located posteriorly, and partially obstructing the lumen. It was easily differentiated from the neighbouring structures. It contained homogeneous, hypodense areas that enhanced by contrast material. This mass was also protruding to the luminal and serosal spaces (Fig.1). She underwent a laparatomy three months after her admission. Stomach opened up with a longitudinal antral gastrotomy. A 4x5 cm antral, prepyloric, posterio-superiorly located submucosal mass was encountered. An oblique mucosal flap lying on the tumoral mass was opened up and the mass was excised. Encapsulated, smooth surfaced tumor beneath the mucosa was excised by sharp dissection as if enucleating it. Tumor was expanding to the serosal layer of the gastric wall. Although no gross involvement of the serosal surface was found, a posterior prepyloric 2 mm puncture was made iatrogenically and, repaired by two 3/0 silk sutures. After mucosal and gastric repair, abdomen was closed. She was discharged from hospital after an uneventfull 12-day postoperative period. Pathologic examination revealed the diagnosis of gastric glomus tumor that was composed of clear epitheloid cells (Fig-2). On the day 15, control ultrasonography and gastroscopy revealed no abnormality.

DISCUSSION

Glomus tumor (Glomangioma) is a benign neoplasm composed of cells derived from the glomus apparatus, a vascular structure that mediates blood flow through arteriovenous shunting in response to vasoactive factors (2). These are very rare tumors.

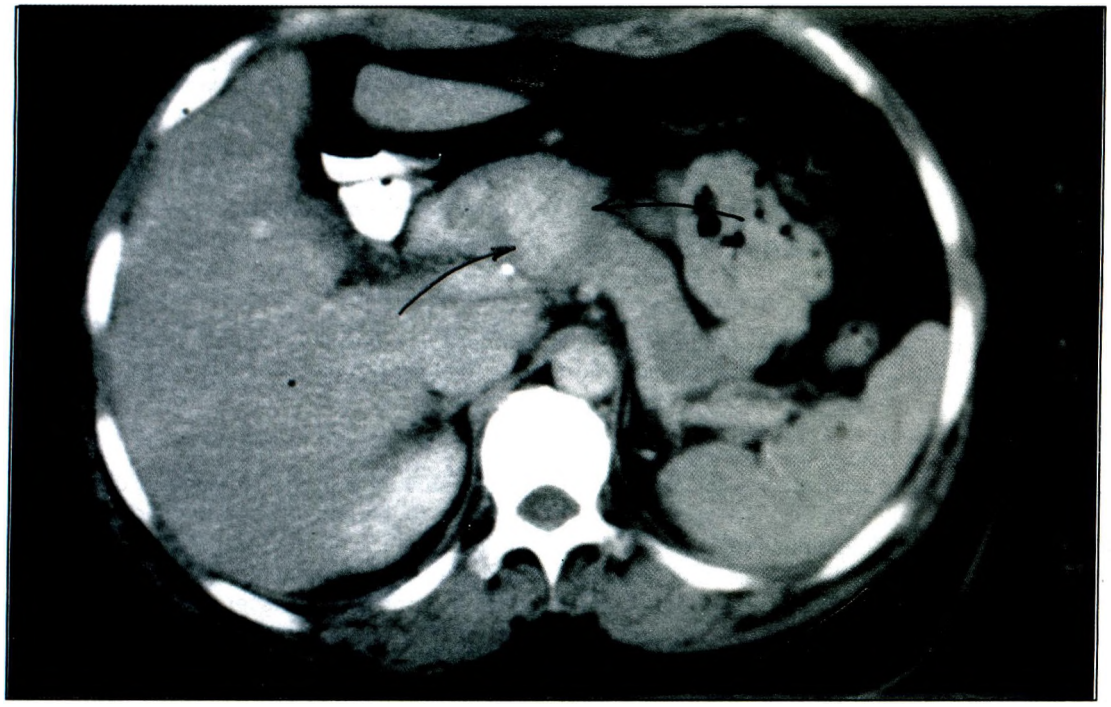

Fig. 1: CT appearance of the gastric glomus tumor. Note the contrast enhanced homogeneous appearance of the mass. No perigastric involvement and lymph node.

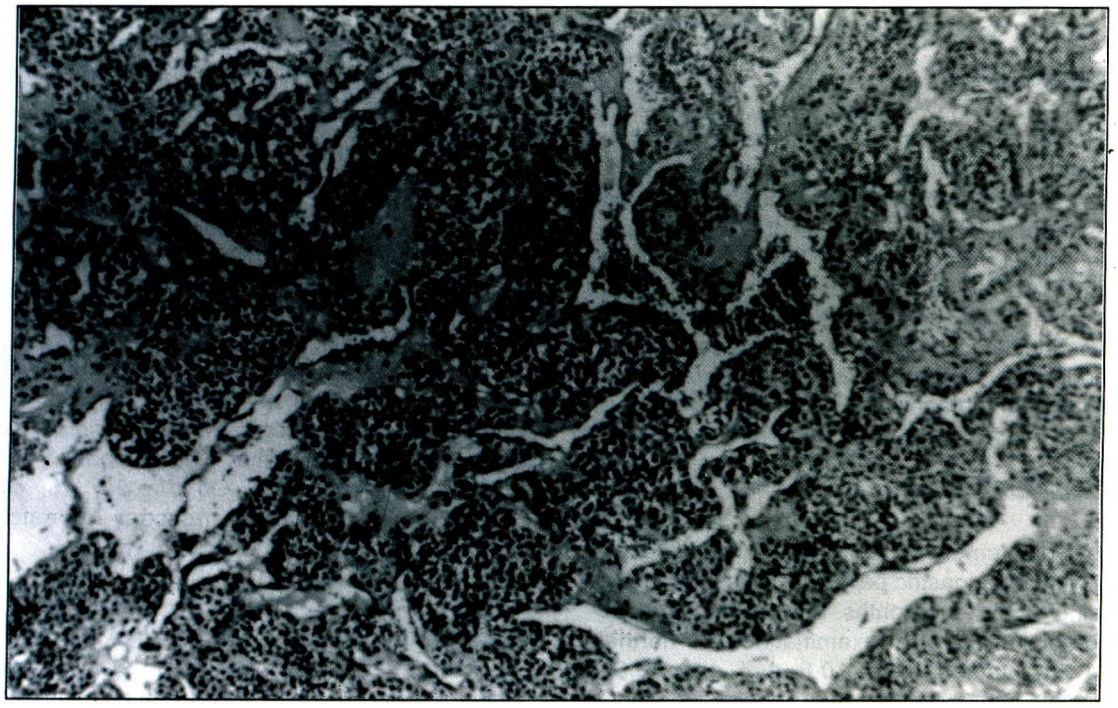

Fig. 2: Photomicrograph of the gastric glomus tumor. Note the characteristic clear cytoplasm epitheloid tumor cells. They are especially arranged around the dilated vessels and infiltrated the muscularis propria.

Only 30 cases have been described since the first report in 1951 (2). Our case is the first one in Turkish literature. Such tumors seem to occur more frequently in females, and usually arise intramurally in the region of the gastric antrum and prepylorus (3,4) as seen in our patient. They often present with gastrointestinal bleeding due to ulceration of the overlying mucosa (4). There has not been a history of previous or recent gastrointestinal bleeding but there were two ulcerated areas on the mucosal surface of the tumor in our patient. Diagnosis either by endoscopy or radiography is usually nonspecific, demonstrating a mural lesion that may change shape under pressure (5). We did not do a barium study. Endoscopic study revealed no definitive diagnosis even after pathologic evaluation. They vary in size from 1 to 5 cm (3). Our case was in that range.

Typically, the lesions of the stomach depicted by sonography are large and appear as target-like and kidney shape(6). The sonographic findings of gastric glomus tumors have not been previously described. In our case, the sonographic findings of a hypoechoic, homogeneous, mural mass in the gastric antrum that was protruding to luminal and peritoneal spaces suggested a benign lesion, such as leiomyoma. CT scan proved the diagnosis of a benign lesion with its extraluminal expansion, size, homogeneous density and there was no peripheral tissue infiltration.

In our case, CT gave no more advantage than abdominal ultrasonography in the diagnosis of gastric glomus tumor. Diagnosis as "a benign tumor" on CT, could be made by the retrospective evaluation of other diagnostic methods in our patient. High-resolution real-time sonography should be considered whenever a gastric mass is identified. Eventual diagnosis was made by pathological examination after surgery. This was in accordance with other cases in the literature (3,4). Surgical treatment of the mass was done by local excision as was mentioned in the literature (3). This was the convenient therapy for this tumor. Our patient was treated by submucosal enucleation as the treatment of choice. Gastric glomus tumor can properly be diagnosed by an endoscopy and a real-time ultrasonography in the hands of an experienced radiologist, and can adequately be treated by only enucleating the gastric mass.

REFERENCES

1. *Lanza FL. Benign and malignant tumors of the stomach other than carcinoma. In: Bockus HL, Haubrich WS, Schaffiner F, Berk JE, eds. Gastroenterology. 5th ed. Vol.I. Philadelphia: W.B. Saunders Company, 1995:841-842.*
2. *Almagro UA, Schulte WJ, Norback DH, et al. Glomus tumor of the stomach. Am J Clin Pathol 1981;75:415.*
3. *Imamura A, Tohihara M, Natsui K, et al. Glomus tumor of the stomach: Endoscopic ultrasonographic findings. Am J Gastroenterol 1994;89:271-272.*
4. *Dupuy DE, Raptopoulos V, Meyer D, Davidoff A. Sonographic findings in glomus tumor of the stomach. J Clin Ultrasound 1989;7:219-221.*
5. *Schneider HJ. Glomus tumor of the stomach - A case report. AJR 1964;92:1026.*
6. *Fakhry JR, Berk RN. The target pattern: Characteristic sonographic feature of stomach and bowel abnormalities. AJR 1981;137:969.*