

Rare gastric glomus tumor causing upper gastro-intestinal bleeding, with review of the endoscopic ultrasound features

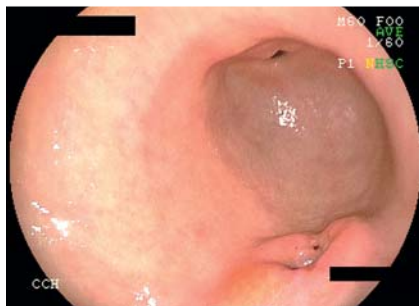


Fig. 1 Upper endoscopy showing an ulcerative tumor in the gastric antrum.

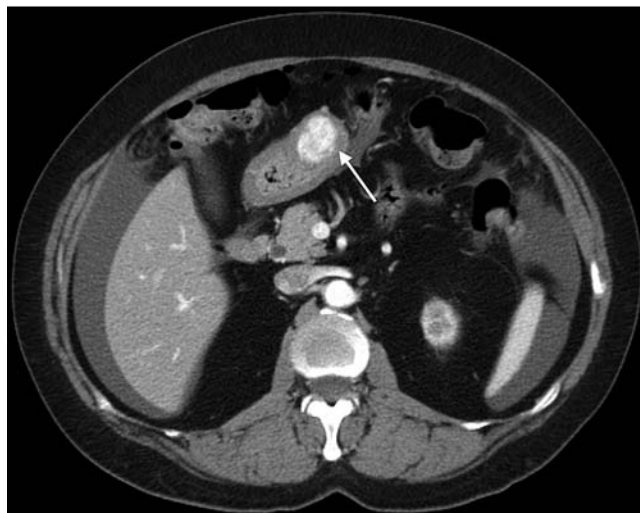


Fig. 2 Abdominal computed tomography (CT) scan showed a strongly enhancing gastric tumor (arrow).

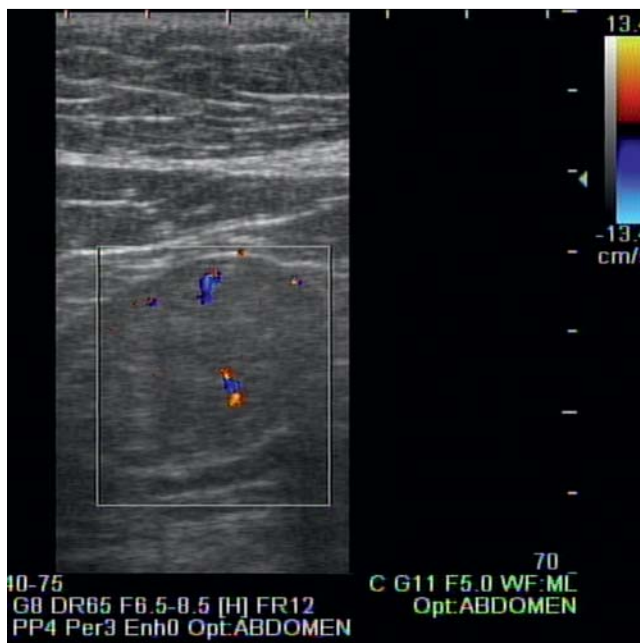


Fig. 3 Abdominal ultrasound showing vascular signal within the tumor.



Fig. 4 Endoscopic ultrasound showing a well-defined, hyperechoic tumor with a calcified spot (arrow).

A 54-year-old woman was referred for endoscopic examination because of an episode of tarry stool. Her medical history was significant for chronic renal failure, for which she was receiving peritoneal dialysis. Upper endoscopy disclosed an ulcerative tumor in the gastric antrum (● Fig. 1). The first biopsy from the ulcer displayed chronic inflammation. An abdominal computed tomography (CT) scan disclosed an hyperintense, homogeneously enhancing tumor (● Fig. 2). Abdominal ultrasound showed a hypervascular tumor (● Fig. 3) and endoscopic ultrasound disclosed a 3-cm, well-defined, hyperechoic tumor with a calcified spot (● Fig. 4). As the first endoscopic biopsy specimen examination was inconclusive, we carried out another biopsy and a definitive diagnosis of glomus tumor was made. The patient was referred to the surgical department for further treatment. Glomus tumors commonly occur in the skin and subcutaneous tissue, and originate from modified smooth muscle cells which behave like perivascular glomus bodies [1]. The gastric antrum is the most commonly involved area of the gastrointestinal tract. About 45% of the tumors present as ulcerative submucosal tumors [1]. Abdominal CT of these tumors usually shows strong enhancement in the arterial and delayed phase [2]. The endoscopic ultrasound features of the tumor have been described in few reports (● Table 1). Most of the tumors originate in the fourth echo layer with either hypo- or hyperechogenicity. In the four of the seven cases reported to have internal hyperechoic spots, these spots corresponded to the calcifications found on histological examination

Table 1 Summary of the reported endoscopic ultrasound (EUS) features of gastric glomus tumors.

Age/sex	Tumor size, cm	EUS layer	EUS features	Reference
32/F	3.4	3, 4	Heterogeneous, hypoechoic, internal hyperechoic spots	Yan et al. [3]
31/F	1.7	4	Heterogeneous, hyperechoic, few tubular structures	Yan et al. [3]
32/F	2.3	4	Hypoechoic, inhomogeneous, irregular border	Yan et al. [3]
62/F	2.0	4	Hypoechoic, irregular extra-luminal margin	Yan et al. [3]
69/F	1.9	4	Heterogeneous, hypoechoic, internal hyperechoic spots, tubular structures	Yan et al. [3]
65/M	2.5	2, 3, 4	Heterogeneous, hyperechoic spots	Maffei et al. [4]
54/F	3.0	4	Homogeneous, hypoechoic, internal hyperechoic spots	Present case

[1]. Doppler EUS shows a prominent vascular signal corresponding to the hypervascular nature of the tumor [3]. Glomus tumors are usually benign, but malignant behavior has been reported. Therefore, surgical treatment is usually required.

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K. C. Chou, C. W. Yang, H. H. Yen
Department of Gastroenterology,
Changhua Christian Medical Center,
Changhua, Taiwan

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Bibliography

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Corresponding author

H. H. Yen, MD

Changhua Christian Medical Center
135 Nanshao Street Changhua
500 Taiwan
Fax: +886-4-7228289
91646@cch.org.tw