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 a 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.

![Fig. 1](image1.jpg) Upper endoscopy showing an ulcerative tumor in the gastric antrum.

![Fig. 2](image2.jpg) Abdominal computed tomography (CT) scan showed a strongly enhancing gastric tumor (arrow).

![Fig. 3](image3.jpg) Abdominal ultrasound showing vascular signal within the tumor.

![Fig. 4](image4.jpg) Endoscopic ultrasound showing a well-defined, hyperechoic tumor with a calcified spot (arrow).

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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.

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

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

References


Bibliography

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