Although extrinsic compression of the gastric wall by an intact splenic artery is a common observation, the characteristic endoscopic ultrasound (EUS) findings of small splenic artery aneurysm (SAA) have not yet been established.

We present four symptom-free patients who were diagnosed as having extragastric compression from a small SAA in the early stage, at the posterior wall of the fundus, by EUS.

- **Table 1** summarizes the clinical characteristics of the patients and the findings of the various investigations. All patients underwent esophagogastroduodenoscopy (EGD), EUS using an electronic radial scanning echoendoscope (EG-530UR, Fujifilm Corp., Saitama, Japan) with color and power Doppler flow-mapping capabilities, and three-dimensional spiral computed tomographic angiography (3D-CTA) using intravenous contrast agents. The final diagnosis was based on the EUS and 3D-CTA findings and the results of the clinical follow-up (5–16 months, mean 12 months).

Screening EGD seemed to reveal a submucosal tumor on the posterior wall of the fundus in all the patients (**Fig. 1**). However, EUS revealed a normal gastric wall compressed by a focally dilated aneurysm (**Fig. 2**), and an arterial pulsation signal was detected by pulse-wave Doppler ultrasound (**Fig. 3**). 3D-CTA revealed these submucosal masses to be small SAAs. Patient 2 had an aneurysm (15-mm diameter) at the hilum of the splenic artery (**Fig. 4**). There was no change in the SAAs in any of the patients at a 3-month follow-up with 3D-CT.

SAA is the most common visceral artery aneurysm [1, 2], and although asymptomatic when small, 3%–10% of SAAs are at risk for rupture [3, 4]. Aneurysms should be considered in the differential diagnosis of endoscopically detected submucosal lesions to avoid potentially lethal rupture.

**Table 1** Clinical characteristics of the patients and esophagogastroduodenoscopy (EGD), endoscopic ultrasound (EUS) and three-dimensional computed tomographic angiography (3D-CTA) findings.

<table>
<thead>
<tr>
<th>Patient (age in years/sex)</th>
<th>Symptoms</th>
<th>EGD findings</th>
<th>EUS findings</th>
<th>3D-CTA findings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Doppler Pulse-wave</td>
<td>Site</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SDS</td>
<td>CGW</td>
</tr>
<tr>
<td>1 (53/F)</td>
<td>None</td>
<td>SMT</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>2 (64/M)</td>
<td>None</td>
<td>SMT</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>3 (58/F)</td>
<td>None</td>
<td>SMT</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>4 (57/F)</td>
<td>None</td>
<td>SMT</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

SMT, submucosal tumor; SDS, segmental dilatation of the splenic artery; CGW, compression of the gastric wall.
harmful outcomes of EUS-guided fine needle aspiration or biopsy. EUS may be a reliable initial diagnostic modality for the diagnosis of even small SAAs (≤ 15-mm diameter), primarily to differentiate between true submucosal tumors and extrinsic compression of the gastric wall caused by normal or pathological structures.

Competing interests: None

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