

Massive gastrointestinal perforation discovered by computed tomography

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An 86-year-old man presented with a one-day history of severe abdominal pain and nausea. He had undergone endoscopic submucosal dissection of gastric cancer in the posterior wall during the previous year.

A physical examination showed extreme abdominal tenderness with guarding and rebound tenderness in the epigastrium. Laboratory findings revealed early inflammation (WBC, 14 300/ μ L; CRP, 0.66 mg/dL). Abdominal contrast-enhanced computed tomography revealed disrupted gastric mucosa in the posterior wall, extraluminal air, and free fluid (Figure 1). A 2-cm perforation from the gastric corpus to the middle posterior wall of the lesser curvature was found at laparotomy.

It was located several centimeters away from the ESD scar. The puncture site was sutured, and the abdominal cavity was washed.

The most common causes of gastrointestinal perforation are trauma, peptic ulcer, and bowel obstruction. The mortality of peritonitis rapidly increases if treatment is delayed, and thus, urgent surgical intervention is required to limit ongoing abdominal contamination and to manage the point of the perforation.

Diagnosis largely depends on imaging findings, and correct diagnosis of the presence and cause of a perforation is essential for appropriate management. Computed tomography can identify small amounts of extraluminal air that are undetectable by conventional radiography.¹

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CONFLICT OF INTEREST

The authors have stated explicitly that there are no conflicts of interest in connection with this article.

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FIGURE 1 Abdominal computed tomography image of an 86-year-old man. Image shows disrupted gastric mucosa in posterior wall (arrow), extraluminal air, and free fluid

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