



Figure 1. Bedside ultrasonography showing free gas (arrow) located anterior to the liver (arrowheads), with enhancement of the peritoneal stripe and reflection artifact.



Figure 2. Abdominal contrast-enhanced CT showing slight free air (arrow) at the anterior perihepatic space region.

[Ann Emerg Med. 2019;73:e39-e40.]

A 70-year-old woman presented to the emergency department 1 day after polyp removal by colonoscopy. Her vital signs were normal and her abdominal examination result was remarkable for diffuse rebound tenderness. Blood test results, including WBC count, and abdominal radiograph results were normal. Bedside point-of-care ultrasonography showed enhancement of the peritoneal stripe and reflection artifact (Figure 1 and Video), and computed tomography (CT) (Figure 2) confirmed the diagnosis.

*For the diagnosis and teaching points, see page e40.
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*(continued from p. e39)***DIAGNOSIS:**

Colonic perforation with pneumoperitoneum. The incidence rate of colonoscopic perforation is estimated at 0.08%, with older patients at greater risk.¹ Ultrasonography may assist in detecting pneumoperitoneum,² with characteristics including enhancement of the peritoneal stripe and reflection artifact.^{3,4} In addition, reverberation and shifting¹ can be observed under probe compression; this is also known as the scissor maneuver.⁵ The patient underwent laparoscopic cecal repair and recovered uneventfully.

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