

## Image of the Month

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**A** 70-YEAR-OLD WOMAN WHO HAD EXPERIENCED sharp abdominal pain in the left lower quadrant during a 7-hour period was seen in the emergency department. She reported an episode of vomiting, her bowel function was normal, and she had not had a high temperature while at home. Her medical history included hypertension, for which she was being treated, and type 2 diabetes mellitus controlled with oral therapy.

On physical examination, the patient had a temperature of 39.6°C, and her abdomen was tender to deep palpation, with mild resistance. There was no rebound tenderness, and her bowel sounds were barely audible. A digital rectal examination revealed stools without blood.

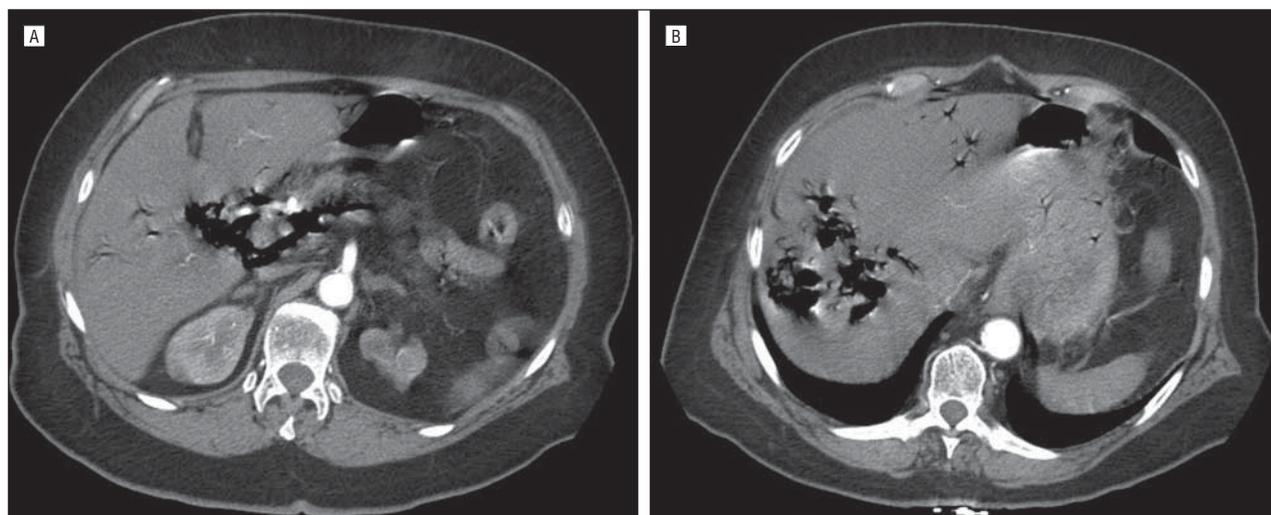
Results of an abdominal radiograph were normal: no substantial free intra-abdominal gas was observed. Blood tests showed a normal white blood cell count and C-reactive protein level, a slight increase in total bilirubin (1.39 mg/dL) and creatinine (1.27 mg/dL) levels, and a significant increase in aspartate aminotransferase (518 U/L) and alanine aminotransferase (215 U/L) levels (to

convert bilirubin level to micromoles per liter, multiply by 17.104; creatinine level to micromoles per liter, multiply by 88.4; and aspartate aminotransferase and alanine aminotransferase levels to microkatal per liter, multiply by 0.0167). An emergently acquired abdominal computed tomographic image showed free retroperitoneal air in the celiac area and devastation at the hepatic hilum; gas surrounded the portal vein and the splenic vein (**Figure 1A**), spreading along the periportal spaces inside the hepatic parenchyma up to the extremity of the liver (**Figure 1B**). The gallbladder showed thick walls and was surrounded by a liquid film, with minimal calcified opacity present inside. There was little fluid in the Douglas space, with a small amount around the liver.

The patient's general condition worsened rapidly. She developed septic shock, requiring treatment in the intensive care unit before being taken to the operating room.

### What Is the Diagnosis?

- A. Acute cholecystitis with perforation
- B. Duodenal perforation
- C. Fistula between the gallbladder and bowel
- D. Necrosis of the bile duct system



**Figure 1.** Computed tomography shows free retroperitoneal air in the celiac area (A) and at the hepatic hilum (B). Gas is spreading along the periportal spaces inside the hepatic parenchyma.