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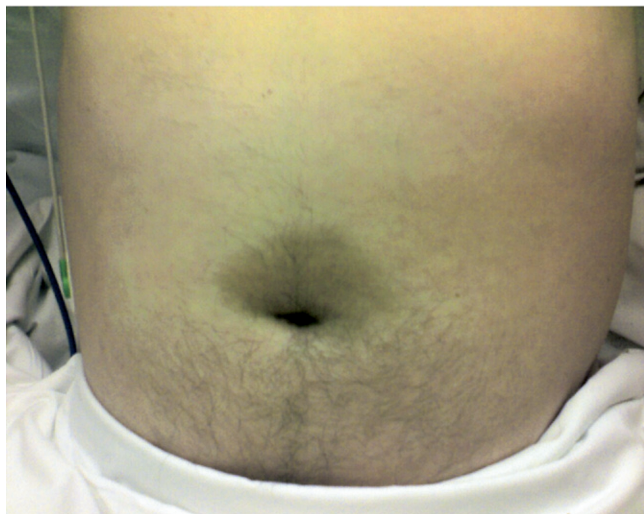

Figure 1. Abdomen demonstrating periumbilical ecchymosis.

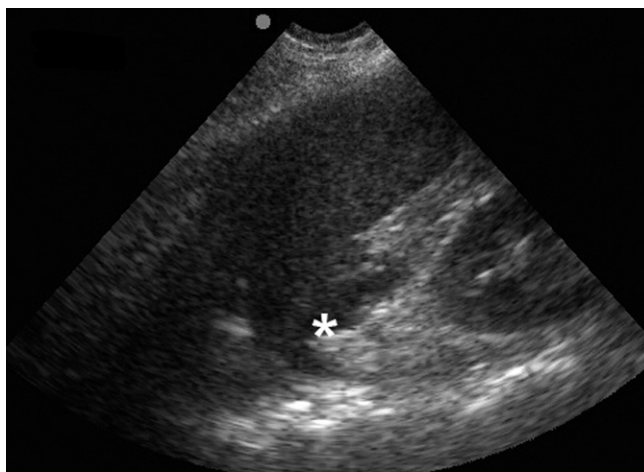

Figure 2. Left-upper-quadrant sonogram demonstrating fluid in the splenorenal recess (asterisk).

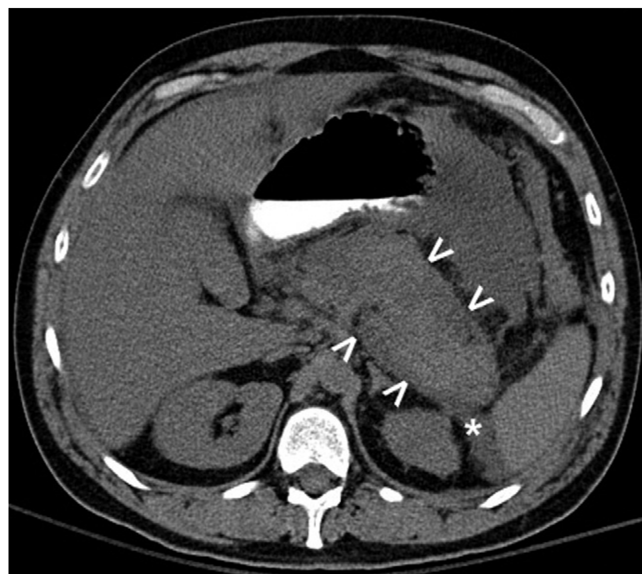

Figure 3. Abdominal CT scan demonstrating enlarged, heterogeneous pancreas with inflammatory changes and surrounding fluid (arrow), as well as fluid in the splenorenal recess (asterisk). Used with permission of Bret P. Nelson, MD, RDMS, Department of Emergency Medicine, Mount Sinai School of Medicine, New York, NY.

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A 36-year-old man presented to the emergency department with a chief complaint of epigastric pain and vomiting, which had a coffee-grounds appearance. He had been bingeing on alcohol for 10 days and was unable to tolerate food or liquid for 2 days. He had no pertinent medical history. On examination, the patient was found to be tachycardic and febrile. His sclerae were icteric, and he exhibited periumbilical discoloration (Figure 1). His abdominal examination revealed mild epigastric tenderness without rebound, guarding, or a Murphy sign. Bedside sonography demonstrated a normal gallbladder. There was a trace amount of free fluid visible in the left upper quadrant (Figure 2) and the pelvis. He underwent computed tomography (CT) of the abdomen and pelvis, with oral contrast (Figure 3).

For the diagnosis and teaching points, see page 755.
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DIAGNOSIS:

Hemorrhagic pancreatitis. The diagnosis was presumed according to clinical presentation and the presence of the Cullen sign. A lipase of 5,534 U/L and the CT image of the pancreas and surrounding fluid confirmed the diagnosis.[1] The patient was admitted to the medical ICU for aggressive hydration, hemodynamic monitoring, and prophylactic parenteral antibiotics.

Hemorrhagic pancreatitis occurs when pancreatic enzymes extravasate and erode through local vasculature. The high mortality rate is manifested through gastrointestinal bleeding, multiple organ dysfunction, disseminated intravascular coagulation, and infection. Management is largely supportive (hydration, pancreatic rest, electrolyte monitoring).[2]

Cullen[3] first described periumbilical discoloration in ruptured ectopic pregnancy and acute pancreatitis. Turner[4] later described flank discoloration in cases of hemorrhagic pancreatitis. Most recently, helical CT has demonstrated anterior extension of pancreatic enzymes from the gastrohepatic ligament and across the falciform ligament in acute pancreatitis,[5] which causes hemorrhage within the properitoneal fat deep to the umbilicus.

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