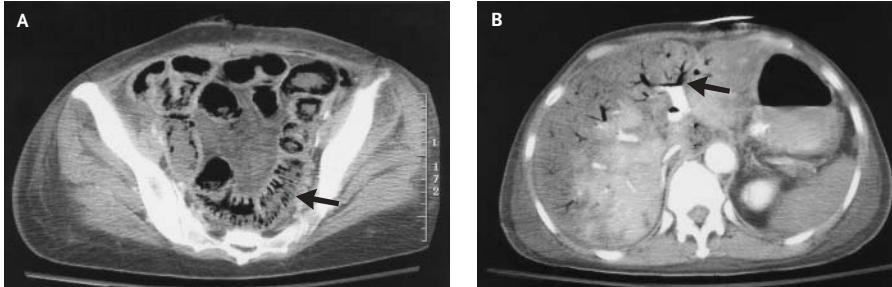


## IMAGES IN CLINICAL MEDICINE

## Pneumatosis Intestinalis and Portal Venous Gas



A 53-YEAR-OLD WOMAN WHO HAD RECENTLY BEEN TREATED FOR UL-  
cerative colitis with high-dose prednisone and mercaptopurine was admitted  
with severe abdominal pain and signs of peritoneal irritation. Colonoscopy, ra-  
diography of the small intestine with contrast medium, and surgical exploration of the  
abdomen revealed fulminant colitis, primarily involving the left colon, but no apparent  
small-bowel disease. Total colectomy and an ileostomy were performed. On the fifth  
postoperative day, the patient's clinical condition deteriorated rapidly, with respiratory  
failure, anuric renal failure, and profound metabolic acidosis. Computed tomography  
(CT) of the abdomen showed slight dilatation, mesenteric edema, diffuse pneumatosis  
intestinalis throughout the small intestine, and gas in the bowel wall (arrow, Panel A).  
CT imaging also revealed gas throughout the portal venous system, including the hepatic  
venous radicals, and portal venous air–fluid levels (arrow, Panel B). The patient had an  
unrelenting, downhill course and died shortly thereafter. At autopsy there was no clear  
explanation for the deteriorating clinical course, aside from the findings of diffuse in-  
flammatory and ischemic changes of the small bowel.

Radiographic findings of diffuse pneumatosis intestinalis and portal venous gas,  
such as those seen in this patient, are characteristic of necrotizing enterocolitis. Al-  
though it is typically found in premature neonates, necrotizing enterocolitis has also  
been described in adults, particularly those with cirrhosis and immunocompromise.

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Craig See, M.D.  
David Elliott, M.D.

Madigan Army Medical Center  
Tacoma, WA 98431-1100