Primary pneumatosis cystoides intestinalis with pneumoperitoneum and spontaneous resolution

Pneumatosis cystoides intestinalis (PCI) is a condition characterized by multiple gas-filled cysts in the submucosa and subserosa of the bowel wall. Patients affected can present with pneumoperitoneum due to the rupture of cysts.1

A forty-year-old man presented with vague epigastric discomfort and mild fever of 2 weeks’ duration. Abdominal radiographs revealed pneumoperitoneum. CT scan delineated multiple gas-filled cysts on the wall of the small bowel (Fig). As the patient had no features to suggest any systemic illness, a diagnosis of primary pneumatosis intestinalis affecting the small bowel presenting with pneumoperitoneum was made. He was managed conservatively. On follow up, he had no significant symptoms and serial abdominal X-rays showed resolution of pneumoperitoneum after 6 weeks.

Differentiating PCI from intestinal polyposis is sometimes difficult with endoscopy and barium studies. CT scan is the best imaging modality for confirmation of the diagnosis as well as for differentiating primary from secondary forms.2

As PCI can regress spontaneously, asymptomatic patients need no specific treatment.1 Symptomatic patients can be treated with high-flow oxygen and/or antibiotics targeting the replacement of hydrogen in the cysts produced by the bacteria implicated in causation of PCI. Surgical management is reserved for complications like obstruction and bowel infarction.1

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References
