

That's a Lot of Air! The Case of Incidental Pneumatosis Intestinalis

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Introduction

Pneumatosis cystoides intestinalis (PCI) is a rare condition characterized by the presence of gaseous cysts in the submucosa and subserosa of the gastrointestinal tract with an incidence of 0.03%. Common causes include pulmonary disease, chemotherapy, ileal surgeries or bowel obstruction with rare causes linked to lactulose or sorbitol-containing compounds. Management is usually conservative after excluding emergent surgical causes like bowel ischemia or bleeding. We describe a case of PCI found incidentally on imaging in a male with cerebral palsy.

Case Report

A 24-year-old male with an extensive medical history notable for cerebral palsy, epilepsy on levetiracetam and lacosamide, tracheostomy and gastrostomy dependence and recurrent small bowel obstructions, presented for evaluation after an outpatient computed tomography (CT) chest demonstrated extensive pneumatosis involving the imaged transverse colon. On review, the patient had a history of abdominal distention and intermittent alternating constipation and liquid stools. Physical examination revealed abdominal distention without tenderness or stool in the rectal vault. Workup revealed normal complete blood count, metabolic profile and lactic acid. CT of the abdomen showed extensive pneumatosis involving the colon (Fig 1,2). Considering that the patient had no signs of acute abdomen, he was managed conservatively with gastric decompression. Care was taken to avoid hypoxia and hypotension since that has shown to worsen pneumatosis. Serial abdominal exams and X rays showed improvement and he was restarted on tube feeds which he tolerated well and was discharged home. A few days later, he presented with hematochezia and constipation, repeat CT abdomen redemonstrated colonic pneumatosis, however, now with new free air. (Fig 3) He was managed conservatively again with colonic decompression and slow introduction of feeds and was discharged in a stable condition.

Discussion

Pneumatosis cystoides intestinalis is an uncommon condition with a presentation ranging from asymptomatic abdominal distention to diarrhea, bloating and hematochezia. In our case, the proposed mechanism could be related to recurrent bowel obstructions, pulmonary disease or the sorbitol content of his anti-seizure medications. Management is usually conservative with surgery reserved for complicated patients and hyperbaric oxygen used in select patients. Although this patient had hematochezia, he was able to be managed conservatively without surgery. Therefore, in most patients, despite concerning features, PCI can be managed conservatively without surgical intervention.

References

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Fig. 1,2 Pneumatosis seen in the sigmoid & distal left colon



Fig. 3 Worsening pneumatosis and free air