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## **Pneumatosis intestinalis in a pediatric patient**

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### **Pneumatosis Intestinalis**

A 4-month-old girl was admitted to the emergency department with gastric vomiting and bloody diarrhea. On physical examination, the abdomen was distended, painful, with evidence of peritoneal irritation. The abdominal X-ray showed the presence of intraluminal gas in the ascending colon, sigmoid, and rectum (**Figure 1 A**). An exploratory laparotomy was performed, finding pneumatosis from the transverse colon to the distal sigmoid, without perforation or other findings (**Figure 1 B**). The patient had a history of type IIIa intestinal atresia at birth, which resolved without complications. At directed questioning, there was no history of other pathological antecedents. There were no more findings in the complete physical examination. After surgery, she continued to breastfeed, the stool pattern was regular, and the X-Ray did not show pneumatosis again.

Intestinal pneumatosis reflects the presence of air in the intestinal wall. It is observed mainly in the neonatal stage in pediatric age secondary to necrotizing enterocolitis and is rare in later life (1). The pathogenesis is multifactorial, and the proposed etiologies are hydrogen-producing bacteria, mechanical distention secondary to intestinal obstruction or pulmonary barotrauma, and abnormal immune response of the intestinal mucosa barrier (2). Gastrointestinal endoscopy is an important diagnostic tool and can guide conservative management, which has been successful in some patients (3-5). However, the patient presented data of an acute abdomen, requiring an exploratory laparotomy.

No gastrointestinal or systemic infection was found in the patient. We do not know if a history of intestinal atresia could have influenced the development of pneumatosis; however, the patient did not show evidence of intestinal occlusion. Therefore, it was classified as a primary intestinal pneumatosis, which occurs in up to 15% of reported cases (2).

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**Fig 1. (A)** Thoracoabdominal radiograph showing intraluminal air in the ascending colon, sigmoid, and rectum. **(B)** Pneumatosis in the colon.

