

# Prepare for the Unexpected: Three Rare Cases of Pneumatosis Cytosides Intestinalis on Screening Colonoscopy

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## INTRODUCTION:

Pneumatosis cytosides intestinalis (PCI) is a condition in which gas is present within the extraluminal space of the bowel wall. PCI is often a clinical sign that is seen on abdominal CT imaging but can also be visualized on colonoscopy leading to the diagnosis of multiple benign to life threatening conditions. We present three cases of patients who were found to have benign PCI on screening colonoscopy. Each patient was asymptomatic and had no significant family or personal history of colon cancer.

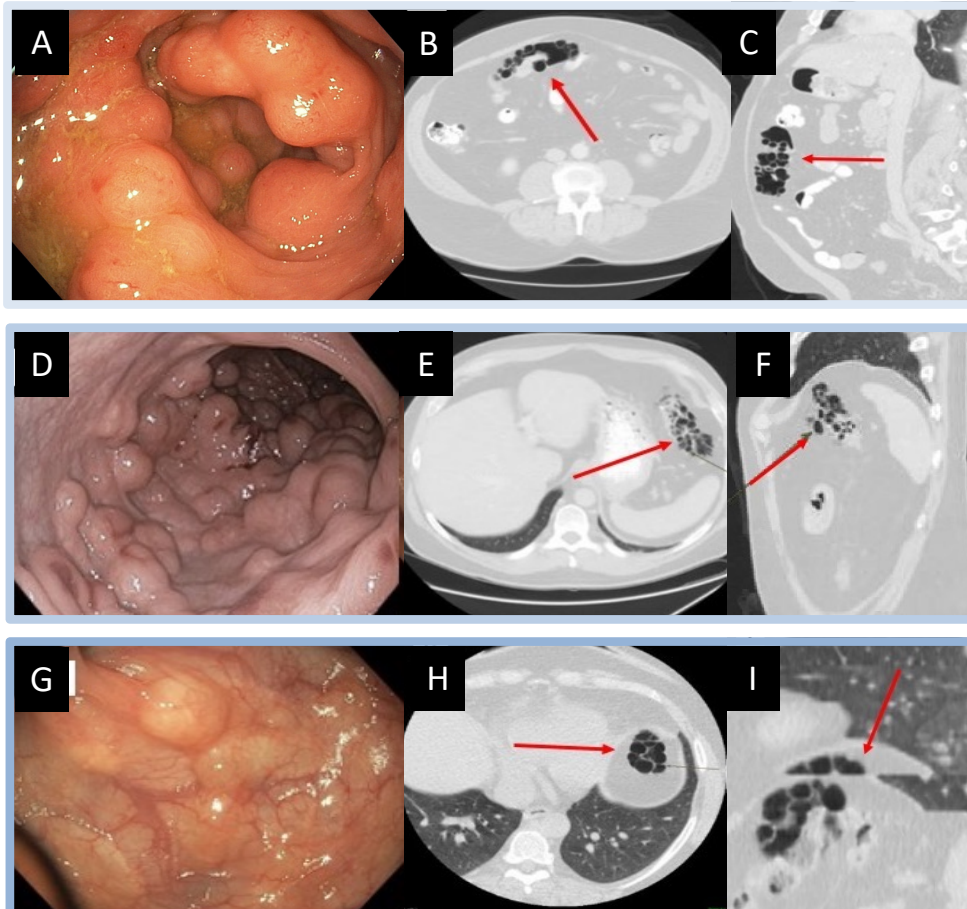
## CASES:

**CASE 1:** 59-year-old male with history of IBS. During colonoscopy, two adenomatous-appearing polyps were removed but an area of nodularity was also seen originating in the sigmoid submucosa located 30 to 35 cm from the anus. Follow up CT demonstrated several locules of air surrounding the colonic mucosa along with colonic wall thickening.

**CASE 2:** 45-year-old male with GERD and HTN. Colonoscopy revealed submucosal, nodular lesions in the descending colon 50 to 65 cm from the anal verge. Biopsies revealed fragments of superficial colonic mucosa with edema, crypt architectural distortion, and reactive changes. Deeper levels with possible submucosa leiomyoma and smooth muscle hyperplasia. Follow up CT was found to be similar to Case 1.

**CASE 3:** 47-year-old female who had air filled cysts within the splenic flexure on colonoscopy that were ruptured with a needle. No follow up imaging had been performed because review of prior CT imaging revealed previously noted pneumatosis cystoides intestinalis in the splenic flexure which correlated to colonoscopy findings.

## IMAGES:



## DISCUSSION:

- It is estimated that approximately 0.03% of the population has PCI but this is likely an underestimate as PCI is often asymptomatic.
- When this abnormality is seen on colonoscopy, careful consideration for urgent abdominal imaging should be undertaken if a patient is having symptoms suggestive of bowel ischemia.
- In the 15% of cases in which no apparent cause is found, cases are considered benign and can be managed conservatively.

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