

# Pneumatosis cystoides coli of the ascending colon: colonoscopic and CT colonographic features

# UCTN

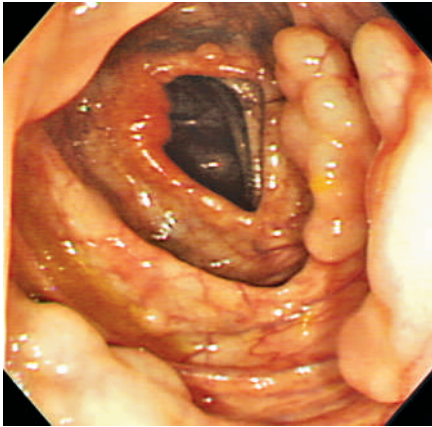


Figure 1 Endoscopic view showing 3–20 mm sized multiple cystic lesions, with an overlying normal mucosal layer in the ascending colon.



Figure 2 Computed tomography colonography endoscopic view showing multiple air-containing polypoid lesions, with an overlying mucosal layer in the ascending colon.



Figure 4 Microscopy image showing an air-containing cyst and mild inflammation in the submucosal layer (Hematoxylin and Eosin,  $\times 40$ ).



Figure 3 Computed tomography colonography 3D reconstruction showing air-containing cysts confined to the ascending colon.

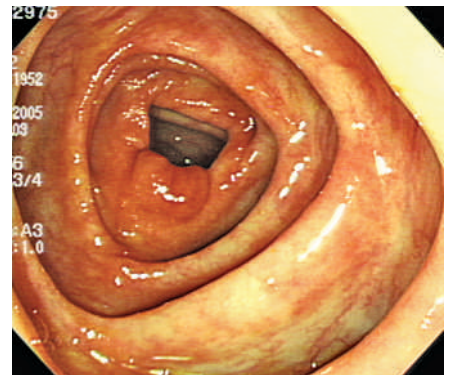


Figure 5 Spontaneous cyst resolution. Cysts are no longer apparent on endoscopy 17 months after initial cyst detection.

A 51-year-old female was referred to our hospital for asymptomatic multiple cystic lesions detected during screening colonoscopy. The patient had no history of pulmonary disease, peptic ulcers, or connective tissue disease. Colonovideoscopy (CVS) examination revealed 3–20 mm sized multiple cystic lesions with an overlying normal mucosal layer in the ascending colon (Figure 1). The patient subsequently underwent computed tomography (CT) colonography (CTC) in order to evaluate the colonic wall and extracolonic compartments. The CTC images are shown as an endoscopic view and a 3D reconstruction in Figure 2 and Figure 3,

respectively. Microscopy examination revealed air-containing cysts and mild inflammation in the submucosal layer (Figure 4). Based on CVS, CTC, and pathology findings, pneumatosis cystoides coli (PCC) of the ascending colon was diagnosed. As the patient was asymptomatic, treatment consisted of detailed follow-up examinations without medical treatment. The cysts were no longer detectable on CVS and CTC performed 17 months later, indicating that spontaneous resolution had occurred (Figure 5 and 6).

PCC is a rare disease characterized by the presence of multiple gas-filled cysts in the bowel wall [1]. CVS findings of PCC are multiple polypoid lesions covered by normal-appearing mucosa. Puncture, leading to complete deflation, is helpful in the diagnosis of PCC [2]. In general, the diagnosis of PCC can be established using CT scans showing intraluminal gas forma-

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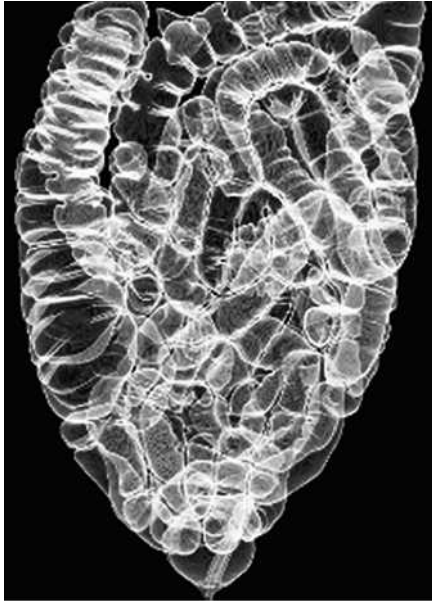


Figure 6 Spontaneous cyst resolution. Air-containing cysts are no longer apparent on computed tomography colonography 3D reconstruction images, taken 17 months after initial cyst detection.

tions parallel to the bowel wall [3]. CT scans can also detect bowel changes and their associated conditions. Recently, the usefulness of CTC in PCC diagnosis was reported [4,5]. CTC can provide a more precise assessment of the extent and severity of PCC than conventional CT. Furthermore, better image quality means CTC improves the chances of detecting complications or underlying diseases, which is important for determining appropriate treatment and prognosis.

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### References

- Gagliardi G, Thompson IW, Hershman MJ et al. Pneumatosis coli: a proposed pathogenesis based on study of 25 cases and review of the literature. *Int J Colorectal Dis* 1996; 11: 111 – 118
- Hoer J, Truong S, Virnich N et al. Pneumatosis cystoides intestinalis: confirmation of diagnosis by endoscopic puncture a review of pathogenesis, associated disease and therapy and a new theory of cyst formation. *Endoscopy* 1998; 30: 793 – 799
- St Peter SD, Abbas MA, Kelly KA. The spectrum of pneumatosis intestinalis. *Arch Surg* 2003; 138: 68 – 75
- Ihara E, Harada N, Motomura S et al. A new approach to pneumatosis cystoides intestinalis by target air-enema CT. *Am J Gastroenterol* 1998; 93: 1163 – 1164
- Leroux K, Rigauts H, Cabooter M. Pneumatosis coli and multi-slice helical CT virtual colonoscopy. *JBR-BTR* 2001; 84: 147 – 149

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