Asymptomatic pneumatosis cystoides intestinalis diagnosed in the follow-up of a dysplastic polyp

A 73-year-old man with a medical history of ischemic cardiomyopathy and atrial fibrillation, who was being treated with digoxin, bisoprolol, and warfarin, underwent a colonoscopy for colorectal cancer screening in April 2013. A 20-mm pedunculated polyp was excised from the ascending colon using a snare after injection of epinephrine in the stalk, and a 30-mm pedunculated polyp was excised, using a similar method, from the sigmoid colon; no other lesions were found. Pathologic analysis showed a low grade dysplastic adenoma in the former and a low grade dysplastic adenoma with areas of high grade dysplasia, with free margins, in the latter. The patient did not experience any immediate complications and remained completely asymptomatic.

A follow-up colonoscopy was performed 1 year later. Multiple round and smooth subepithelial nodules, with normal overlying mucosa, suggestive of pneumatosis cystoides intestinalis (Fig. 1 a–c), were observed in the ascending colon. With a biopsy forceps and a needle, we deflated some of these lesions, confirming the diagnosis (Video 1). Pathologic analysis showed some features of pneumatosis intestinalis with a cyst centered in the muscularis mucosa/submucosa (disruption of the muscle was noted) (Fig. 2).

The pathogenesis of this condition is poorly understood [1, 2]. Traumatic injury of the mucosa caused by polypectomy could allow intraluminal gas to pass through the wall of the colon. This “mechanical theory” [1] is not widely accepted as the cause of pneumatosis intestinalis; however, we conclude that it is the best explanation in this case since the gaseous cysts became evident only after polypectomy in the same region of the colon.

Competing interests: None

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Fig. 1 a–c Pneumatosis cystoides intestinalis after screening colonoscopy: endoscopic views of submucosal lesions found in the ascending colon in an area where polypectomy had been done 1 year previously.

Fig. 2 Histological image showing features of pneumatosis intestinalis (hematoxylin and eosin [H&E], x 100).

Video 1

Video showing biopsy and deflation of nodules using forceps and an endoscopic needle.

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Cases and Techniques Library (CTL)
References

1. Wu L-L, Yang Y-S, Dou Y et al. A systematic analysis of pneumatosis cystoides intestina-

2. Heng Y, Schuffler MD, Haggitt RC et al. Pneu-
matosis intestinalis: a review. Am J Gastro-
enterol 1995; 90: 1747–1758

Bibliography

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