Appendiceal mucocele due to mucinous adenoma diagnosed by computed tomography colonography

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An asymptomatic 50-year-old man underwent a low-dose computed tomography colonography (CTC) for screening purpose. The CTC examination was negative for colonic mass or polyps, but axial and coronal two-dimensional CTC images (Fig. 1) showed a large elongated low-attenuation mass in the expected region of the appendix, in line with an appendiceal mucocele. Three-dimensional CTC endoluminal images (Fig. 2) showed the mass bulging into the cecal lumen.

The patient underwent appendectomy with partial right hemicolectomy and is in good health. Pathology confirmed an appendiceal mucocele from mucinous adenoma, and in particular the histological examination revealed a low-grade mucinous appendiceal neoplasm with negative regional lymph nodes and with no signs of mucinous peritoneal carcinomatosis.

This case shows the crucial role of CTC in the diagnosis of an unknown submucosal disease [1], potentially malignant if not early diagnosed [2,3]; that diagnosis would not have been made if the patient had had an optical colonoscopy or a double contrast barium enema instead of CTC, since both tests fail to evaluate extraluminal areas.

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Figure 1 Axial prone (A) and coronal reformation (B) computed tomography colonography images show a dilated appendix appearing as a smooth-walled, homogeneous low-density tubular structure (arrows in A and B) protruding into the cecum lumen



Figure 2 3D color map image (A) shows a cecum smooth filling defect (arrow). 3D endoluminal view (B) demonstrates a smooth mass (asterisk) protruding into the cecum

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