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PHOTO QUIZ

An adult with vague abdominal complaints and atypical colonoscopic findings

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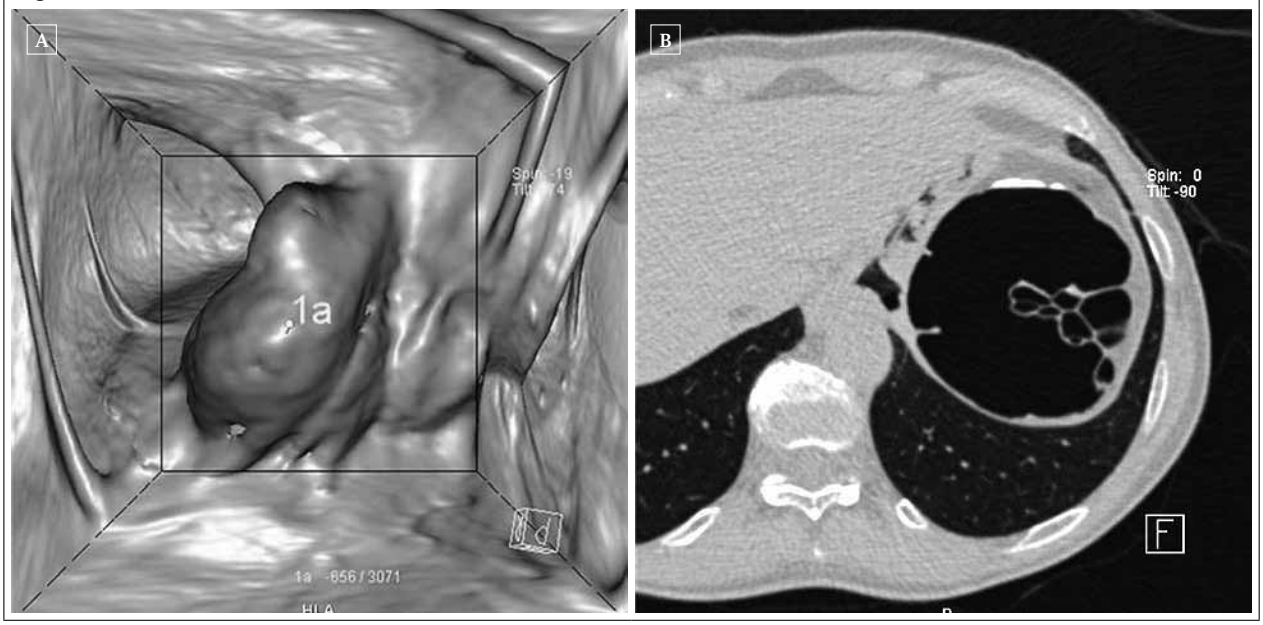
CASE REPORT

A 58-year-old male presented with a history of vague abdominal pain for several months. Physical examination and laboratory tests were negative. Routine ultrasound examination showed no relevant abnormalities. The patient was not reassured and optical colonoscopy was performed to exclude colonic pathology. A polyp-like lesion with intact overlying mucosa was seen and interpreted as an external lesion; therefore no biopsy was taken. Instead, a computed tomography colonography (CTC) was carried out and a multilobulated broad-based polypoid lesion was found at the splenic flexure (*figure 1A*). On the two-dimensional (2D) images (*figure 1B*) the lesion demonstrated a rather 'foamy' aspect caused by multiple air-containing lobules.

WHAT IS YOUR DIAGNOSIS?

See page pagina 327 for the answer to this photo quiz.

Figure 1.



ANSWER TO PHOTO QUIZ (PAGE PAGINA 324)

AN ADULT WITH VAGUE ABDOMINAL COMPLAINTS AND ATYPICAL COLONOSCOPIC FINDINGS

DIAGNOSIS

Pneumatosis cystoides coli (PCC) is a rare condition defined as an abnormal location of gas within the colonic wall.[1,2] It typically presents with multiple gas-filled cysts in the submucosa and/or subserosa of the colon. The size of the cysts may range from a few millimetres to several centimetres. PCC is regarded as the colonic variant of pneumatosis cystoides intestinalis (PCI).[1] Distinction is made between primary idiopathic and secondary forms of PCI.[1] The primary form (PCC) has no known associated predisposing factors.[1,2] The secondary form, however can be caused by a wide variety of underlying pathologies such as gastrointestinal disorders, pulmonary and infectious disease and prior chemotherapy.[1] Numerous hypotheses have been proposed to explain the pathogenesis, including mechanical, biochemical and bacterial causes.

Clinically PCI may present with a variety of symptoms.[3] PCC is a benign entity and the clinical course is usually positive. When PCC or PCI is an incidental finding, conservative management should be the treatment of choice. Antibiotics and elementary diet have been described for patients with mild symptoms, with ambiguous results.[1,2] High-pressure oxygen treatment seems effective in patients with more severe symptoms.[1,2] Our patient was treated conservatively because the PCC was interpreted as an incidental finding. The symptoms diminished and even disappeared after nine months.

PCC is very difficult to detect on plain film because of the coexistence of normal gas between mucosal folds or a mixture of gas and faecal material. With a barium enema and even with conventional colonoscopy, the intraluminal bulging of the submucosal air-containing cysts can be mistaken for a polypoid lesion or even a malignancy. With CTC one can precisely delineate the extent of the lesions and differentiate PCC from an adenomatous polyp or malignancy. From an endoluminal three-dimensional perspective, PCC can have a polypoid appearance similar to the findings with conventional colonoscopy, although the mucosal surface cannot be reliably discerned. On the 2D images, however, the air composition of the cysts is readily apparent, especially in a lung-window setting.[1-5] Since CT scan also provides a survey of the entire abdominal cavity, it is possible to exclude other conditions such as pneumoperitoneum or gas in the portal venous system,[2] although this is limited because of the lower signal-to-noise ratio in the currently used low-dose setting and the absence of IV-contrast administration.

CONCLUSION

Our patient was diagnosed with a pneumatosis cystoides coli in the descending colon. CT colonography is the modality of choice in diagnosing PCC, allowing the exact location and configuration of the abnormalities to be described.

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