

CLINICAL PICTURE

Antibiotic overuse in older patients: an important clinical reminder of pseudomembranous colitis

A 79-year-old woman with a history of diverticulosis presented to the emergency department with abdominal pain, diarrhea and fever (38.6°C) since 3 days. Diverticulitis was ruled out with an abdominal CT scan, but diffuse circumferential wall thickening of the entire colon and rectosigmoid was observed (Figure 1A). Since the patient received antibiotics (amoxicillin/clavulanate) during a recent COVID-19 infection, *Clostridium difficile* infection (CDI) was considered. Colonoscopy showed characteristic white–yellow pseudomembranous plaques (Figure 1B) and also a stool sample for *C. difficile* toxin turned out positive.

The CDI was treated with vancomycin and patient recovered swiftly.

The aging process itself, malnutrition and antibiotic (over)-use may cause a reduction in gut microbial diversity that increases CDI susceptibility.^{1,2} In addition, an emerging body of studies reveal widespread overuse of antibiotics in patients with COVID-19, entailing an increased risk of adverse events, such as CDI.^{3,4}

Therefore, this case underlines that perceived benefits of antibiotic prescription, especially in (frail) older patients, may be

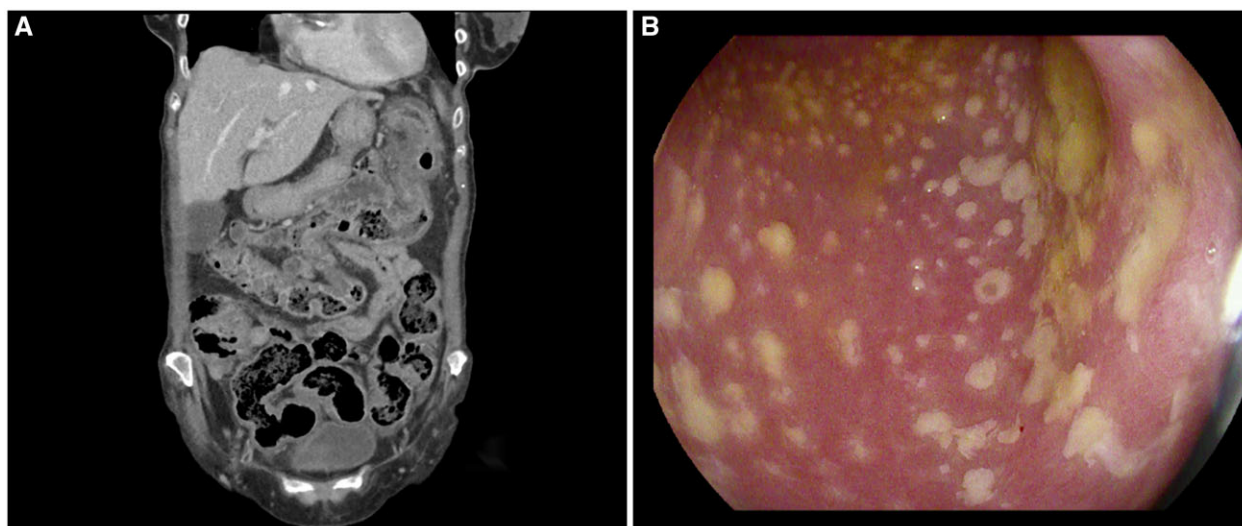



Figure 1. Images of the patient with (A) an abdominal CT scan showing diffuse circumferential wall thickening (consistent with submucosal edema) of the entire colon and (B) a colonoscopy image showing the characteristic white–yellow, elevated plaques converging to pseudomembranes on the mucosa.

offset by greater harm by microbial perturbation. Since gut microbial perturbation is also linked to a range of chronic conditions,⁵ this is an area of research that may be on the cusp of altering clinical practice.

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