

## CONTINUING MEDICAL EDUCATION ΣΥΝΕΧΙΖΟΜΕΝΗ ΙΑΤΡΙΚΗ ΕΚΠΑΙΔΕΥΣΗ

### Internal Medicine Quiz – Case 20

An 84-year-old man was admitted because of fever and abdominal pain. He had been treated empirically with metronidazole for an acute diarrhoeal syndrome up to 5 days before. However, after he completed the treatment, diarrhoea recurred and he also presented fever, severe abdominal pain and vomiting. He did not report bloody stools.

His medical history included rheumatic polymyalgia under corticosteroid treatment, prostatectomy due to benign prostatic hyperplasia, cholecystectomy, and a left inguinal hernia. Twenty days before his admission, the patient had been treated with a series of antibiotics for an undefined respiratory tract infection.

On admission, the patient's temperature was 38.6 °C, his blood pressure 95/55 mmHg, his respiration rate 15/min and his pulse rate 90/min. Examination of the abdomen revealed tenderness on the left part of the abdomen, with normal bowel sounds. The rest of the clinical examination was unremarkable. Full blood count showed hematocrit 44.5%, hemoglobin 14.7 g/dL, and an elevated white blood cell count (11.020/μL) with a left shift. A highly increased C-reactive protein was also noted (158 mg/L, normal range <5 mg/L). Serum chemistries, renal and liver function were normal. Chest x-ray was normal and the electrocardiogram showed sinus rhythm.

The patient underwent an emergent abdominal computed tomography (CT) scan, which revealed a wall thickening of the sigmoid and the descending colon (fig. 1), and a small left inguinal hernia without any signs of strangulation. No diverticuli



**Figure 1.** Arrow that indicates thickening of the descending colon.

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were found, but there was a large cortical renal cyst on the left kidney without however any signs of hemorrhage or rupture.

The patient was started on empirical antibiotic treatment with ciprofloxacin and metronidazole for a presumed intra-abdominal infection; however, stool assays established the diagnosis.

#### Comment

Stool culture grew *C. difficile* and stools were positive for both *C. difficile* toxin A and glutamate dehydrogenase (GDH), thus confirming the diagnosis of *C. difficile*-associated colitis (CDAC). Sigmoidoscopy revealed numerous ulcerations covered by yellowish plaques in the rectum and sigmoid colon, findings compatible with pseudomembranous colitis, which is a severe form of CDAC. Antibiotics were stopped and the patient received oral vancomycin 125 mg qid. After 3 days, he started improving and he was discharged at day 6 with instructions to complete 14 days of treatment.

*Clostridium difficile*-associated colitis is usually healthcare-associated; however, it has been also recognised, albeit less frequently, in the community. Primary care physicians should be aware of community-acquired CDAC, so that they approach suspect cases appropriately, both diagnostically and therapeutically. Similarly, hospital-based physicians should suspect CDAC in patients with a history of relatively recent antibiotic treatment and a compatible clinical presentation, even when they present from the community.

The diagnosis is confirmed by the demonstration of *C. difficile* (i.e. either positive culture or a positive GDH testing) along with *C. difficile* toxin A and or B in stools. Occasionally, when the clinical presentation is not typical (e.g. when abdominal pain is the dominant symptom), patients undergo abdominal CT scans which may reveal colon wall thickening, pericolic stranding and ascites, as well as the “accordion sign” and the “target sign”.

#### References

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