

## PICTURES IN DIGESTIVE PATHOLOGY

### Nodular colitis: endoscopic image, an unusual finding

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An 82-year-old male with a history of high blood pressure, COPD, chronic myeloid leukemia, and stage-4 chronic renal failure. Admitted to hospital for lower-limb cellulitis and severe COPD exacerbation, he received antibiotic therapy and bronchodilators. During his hospital stay he developed severe anemia and had a hematochezia event with no diarrhea.

A complete colonoscopy found small (4-7 mm) nacreous elevated lesions, circumferential in shape, in the cecum and ascending colon with some bleeding stigmata and submucosal bleeding suggestive of infectious colitis (Fig. 1). Stool culture was negative and *Clostridium difficile* toxins were positive. The condition was histologically confirmed (Fig. 2).

Infection with *Clostridium difficile* has a variable clinical presentation and a highest incidence among populations with risk factors (advanced age, antibiotic use, and comorbidity). The diagnosis is based on clinical and microbiological criteria (1,5).

Endoscopic study is a useful, fast diagnostic method for advanced infection by direct visualization (5). Typical (theoretical) findings include pseudomembranes, which look like strongly adhering plaques with a yellowish or white relief and up to 2 cm in diameter, which may be covered by mucus, as well as intestinal wall edema, erythema, friability and inflammation (4). It may affect the whole large intestine but is usually seen in the left colon, sigma and rectum (5).

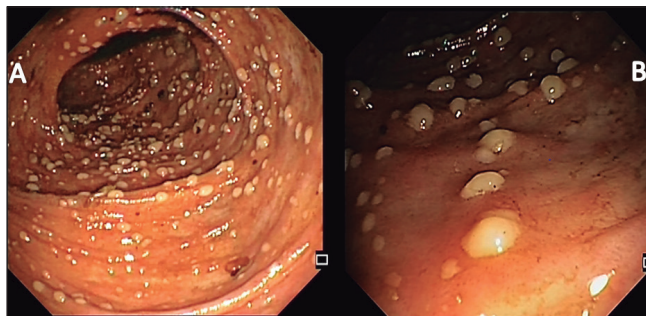


Fig. 1. A. Endoscopic view of the right colon showing circumferential, elevated, nacreous plaques smaller than 7 mm, with bleeding stigmata and submucosal hemorrhage. B. A close-up view of these lesions.

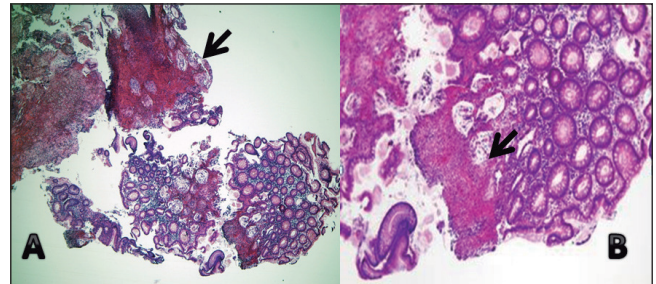


Fig. 2. Histological study of biopsy samples from the right colon and cecum with acute necrosis and inflammation-related fibrino-hematic material. Polymorphonuclear leukocyte accumulations can be seen in the lamina propria, which destroy the glandular pattern and extend to the surface as a necrotic, inflammatory mass.

We report this clinically unusual endoscopic image based on its characteristics and location. In 20-30% of cases, lesions involve the right colon (2,5). Findings are similar to those reported for infection with *Clostridium difficile* in immunocompromised patients (3).

In conclusion, in the presence of similar endoscopic findings *C. difficile* infection should be suspected, even though endoscopy is not a first-choice modality in this setting. However, it provides a diagnosis in severe cases or in patients with high clinical suspicion and a negative or inconclusive microbiological study.

## REFERENCES

1. Surawicz C, Brandt L, Binion D, et al. Guidelines for diagnosis, treatment, and prevention of *Clostridium difficile* infections. *Am J Gastroenterol* 2013;108:478-98. DOI: 10.1038/ajg.2013.4
2. Fauci AS, Braunwald E, Kasper DL. *Principios de Medicina Interna*. 16ª ed. México DF: Mc-Graw Hill Interamericana Editores; 2009. p. 851-4
3. Younus F, Steigbigel R. Nodular *Clostridium difficile* colitis. *N Engl J Med* 2004;350:e9. DOI: 10.1056/ENEJMicm010423
4. Korman TM. Diagnosis and management of *Clostridium difficile* infection. *Semin Respir Crit Care Med* 2015;36:31-43. DOI: 10.1055/s-0034-1398741
5. Vázquez-Iglesias. *Endoscopia digestiva diagnóstica y terapéutica*. 1ª ed. Madrid: Editorial Médica Panamericana; 2009. p. 637-54.