

PREVALENCE OF *CLOSTRIDIUM DIFFICILE* INFECTION IN PATIENTS WITH INFLAMMATORY BOWEL DISEASE.

ABSTRACT

Introduction: Inflammatory bowel disease (IBD) comprises a group of diseases of multifactorial etiology, characterized by chronic and progressive inflammation of the gastrointestinal tract, consisting mainly of Crohn's disease and ulcerative colitis. *Clostridium difficile* is a gram-positive, spore-producing rod that is ubiquitous in nature and is an important cause of diarrhea associated with the use of antimicrobials and in immunocompromised patients. The literature has reported a higher occurrence of *Clostridium difficile* infection (CDI) in patients with IBD, leading to significant morbidity and mortality

Methods: A cross-sectional study was performed at the DII outpatient clinic where patients with quiescent ulcerative colitis or Crohn's colitis or who have had a recurrence of colitis were recruited. Patients with acute gastrointestinal symptoms were enrolled as controls. Two specimens of diarrheal feces were collected on two consecutive days and tested for *Clostridium difficile* toxins A and B by enzyme-linked immunosorbent assay. ICD was diagnosed if the patients tested had at least one of the stool samples positive for any of the toxins. Patients with quiescent colitis and controls also underwent the same evaluation for ICD.

Results: 120 patients (91 with ulcerative colitis and 29 with Crohn's colitis, 77 women, mean age 43.1 ± 13 years), of which 66 (55%) had active colitis, and 54 (45%) had colitis remission were included prospectively. The control group included 40 patients (27 women, mean age 39.8 ± 11.9 years). Of the 120 patients with IBD, 22 (18.3%) tested positive for one of the toxins compared to none (0%) of the 40 controls ($P = 0.001$). Patients with active IBD had a significantly higher prevalence of DCI than patients with IBD in remission (28.8% vs. 5.6%, respectively, $P = 0.001$).

Conclusions: The prevalence of ICD in patients with ambulatory IBD is high, especially in those presenting with recurrence of colitis.

Key words: inflammatory bowel disease, *Clostridium difficile*, Prevalence, Crohn's disease, Ulcerative colitis