CLOSTRIDIUM DIFFICILE COLITIS DURING ANTITUBERCULOUS TREATMENT

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A 72-year-old male, non-smoker, with a personal medical history of long-standing diabetes mellitus, hypertension and peripheral arterial disease, who had been diagnosed with bilateral extensive pulmonary tuberculosis (TB) two months earlier (Figure 1 a,b) and started on HRZE (isoniazid, rifampicin, pyrazinamide, ethambutol) antituberculous (anti-TB) regimen, presented in the Gastroenterology service for new-onset diarrhea, passing up to 3-4 non-bloody stools per day. Clinical examination was remarkable for bilateral fine rales on pulmonary auscultation and trophic skin changes in the legs. Routine blood tests were unremarkable, except for mild inflammatory syndrome. Stool work-up was positive for *Clostridium difficile* infection (CDI) and oral vancomycin was started, with favorable outcome. While continuing the anti-TB therapy, CDI recurrence was seen after two months. Colonoscopy was performed to check for underlying colonic disease but revealed multiple yellowish plaques

suggestive for CDI (Figure 2). A tapered and pulsed regimen of oral vancomycin was prescribed to control the recurrence.

CDI is the leading cause of nosocomial infectious diarrhea. It has a wide spectrum of severity – from mild diarrhea to fulminant colitis. Prior antibiotic exposure is the most important risk factor for CDI. Cephalosporins, fluoroquinolones, carbapenems and clindamycin have traditionally been recognized as high risk antibiotics⁽¹⁾. Although uncommon, anti-TB agents have been reported to be associated with CDI⁽²⁾. Among them, rifampicin is considered the main culprit in anti-TB-associated CDI and could play a role in the development of resistant strains⁽³⁾. While cessation of the inciting antibiotic is one of the main pillars of the therapeutic strategy in CDI, decisions on discontinuing anti-TB drugs should be discussed with the pulmonologist. We highlight the need that CDI should be considered in patients on anti-TB agents who develop diarrhea during therapy.

INTERNAL MEDICINE

Images in Medicine

Figure 1 a, b. Chest X-ray and CT scan of the thorax showing extensive TB involvement of left lung

Figure 2. Colonoscopy image showing the characteristic yellowish plaques of CDI

References

1. McDonald LC, Gerding DN, Johnson S, et al. . Clinical Practice Guidelines for Clostridium difficile Infection in Adults and Children: 2017 Update by the Infectious Diseases Society of America (IDSA) and Society for Healthcare Epidemiology of America (SHEA). *Clin Infect Dis* 2018; 66: e1-48.
2. Lee YM, Huh KC, Yoon SM, et al. Incidence and Clinical Outcomes of Clostridium difficile Infection after Treatment with Tuberculosis Medication. *Gut Liver*. 2016;10(2):250-254. doi:10.5009/gnl14435
3. Obuch-Woszczatyński P, Dubiel G, Harmanus C, et al. Emergence of Clostridium difficile infection in tuberculosis patients due to a highly rifampicin-resistant PCR ribotype 046 clone in Poland. *Eur J Clin Microbiol Infect Dis*. 2013;32(8):1027-1030. doi:10.1007/s10096-013-1845-5