

Prognostic factors of mortality and complications of *Clostridium difficile* infection in elderly patients

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INTRODUCTION

Most cases of *Clostridium difficile* infection (CDI) occur in patients older than 65 years. Older age is associated with increased mortality. The characteristics of CDI in a group of elderly patients is described.

MATERIAL AND METHODS

✓ Retrospective cohort study

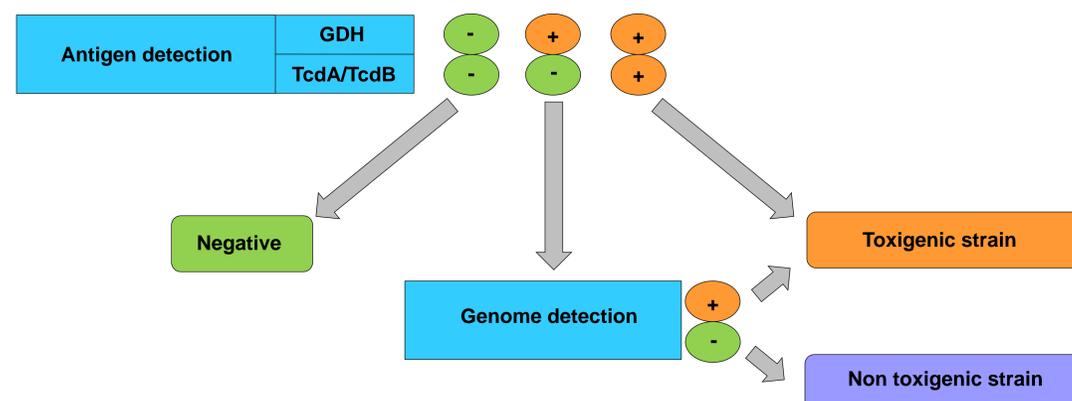
- **Period:** January 2014 – November 2016
- **Patients:** All patients older than 65 years with CDI hospitalized
- **Data collected:**
 - ✓ Demographic characteristics, past medical history, CDI description
 - ✓ Exposure to risk factors associated with CDI within 8 weeks before CDI, including previous hospitalization, nursing home residency, antibiotic treatment, antisecretory drugs, and surgical procedures.
- **Samples:** Stool samples

✓ Detection of *Clostridium difficile*

➤ Techniques:

- Antigen detection: Cdiff QuickChek Complete (TechLab, EEUU)
 - Immunoassay to detect:
 - GDH > *C. difficile*
 - TcdA and TcdB > Toxigenic strain of *C. difficile*
- Genome detection: GenomEra CDX System *C. difficile* (Abacus Diagnostica, Finland)
 - PCR assay to detect:
 - Gen tcdB > Toxigenic strain of *C. difficile*

➤ Algorithm:



RESULTS

- **Patients:** 84 patients older than 65 years with CDI hospitalized
 - Mean age: 77[8] years
 - Males: 60.7 %
 - Mean stay of infection in Spain: 8 [14] days
- Prior to CDI, 64 patients (76.2%) were exposed to antibiotics.
- All infections except four was nosocomial.
- The most frequent symptoms were diarrhea (100%), abdominal pain (46.4%) and fever (45,2%).
- Nine patients developed a complication (8 patients a colitis and 1 patient an ileus). The presence of complications was more frequent in patients treated with vancomycin enemas in monotherapy (p=0.030, OR:20.8 [1.674-259]) and in those with abdominal pain (p=0.013, OR: 9.39 [1.173-83.57]).
- Mortality was significantly more frequent in patients with elevated levels of leucocytes (18[15] vs 13[27], p= 0.001) but there is no differences in sex, age, treatment with metronidazole or vancomycin or serum C-reactive protein levels.

CONCLUSIONS

Clostridium difficile infection is an important cause of complications and mortality in elderly patients associated to treatment with vancomycin enema in monotherapy, and high levels of leucocytes.