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P0256 Clinical outcome of *Clostridium difficile* infection in relation to positive versus negative faecal free toxins: an 8-year prospective study

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Background: *Clostridium difficile* infection (CDI) produces a variety of clinical presentations ranging from mild diarrhea to severe infection with fulminant colitis, septic shock, and death. Clinical outcome was reported as correlated with the detection of free toxins in feces, hence only patients with positive fecal free toxins should be considered as true cases of CDI.

Materials/methods: Between February 2011 and August 2018, an 8-year prospective, observational, cohort study was conducted in a French university hospital. Until January 2013, the presence of *C. difficile* was assessed by enzyme immunoassay (EIA) of fresh stool samples and by toxigenic culture. From February 2013, the laboratory changed to a combined immunochromatographic test for GDH and toxins (C. DIFF QUIK CHEK COMPLETE®, Alere) coupled with polymerase chain reaction (PCR, GeneXpert® Systems, Cepheid). Inpatients aged ≥18 years and suffering from CDI were asked to participate. The patients included were actively followed up to 60 days after CDI testing. Data were categorized: group (G) 1, free toxins detected; and group 2, CDI confirmed by PCR or toxigenic culture.

Results: A total of 521 patients were included, of whom 275 (52.8%) had positive free-toxins. One hundred six patients (24.6%) developed at least one of the following complications: colectomy, colitis, ileus, intestinal perforation, megacolon, multiorgan failure, peritonitis, pseudomembranous colitis, renal failure and sepsis/septic shock. Complication rate was higher in G2 than in G1 (25.2% vs 24%, P=0.75). By the end of the follow-up, 99 (19%) patients decease. Death was related to CDI in 24 patients (4.6%) and there was no statistical difference between the 2 groups (P=0.89). However, 60-day all-cause mortality was significantly higher in G1. Relapses within 60 days were detected in 32 (11.6%) patients in G1 and 13 (5.3%) in G2 (P=0.01).

Conclusions: This prospective cohort study did not support the hypothesis that detection of stool toxins with EIA was associated with complicated CDI or CDI related-mortality. The previously suggested association between stool toxins and clinical outcome is still a matter of debate. Further studies are needed to determine the management of CDI patients with discrepant immunoassay and PCR results.