

POSTER PRESENTATION

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Clinical impact and outcome of clostridium non-difficile infection in critically ill patients

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Introduction

Clostridium species are gram-positive, anaerobic, spore-forming bacteria and some species have pathogenic nature. There is limited data regarding Clostridium non-difficile infection in critically ill patients available. Symptoms of infection are often non-specific, which leads to delayed diagnosis and therapy initiation in these patients.

Objectives

Aim of this study was to evaluate patients with positive microbiological cultures of Clostridium non-difficile infection with the need of critical care medicine.

Methods

Patients with microbiological result of Clostridium non-difficile infection admitted to the intensive care unit (ICU) were included in this study. Patient's characteristics including admission diagnosis, severity of illness (SOFA-score), therapeutic procedures and outcome were recorded.

Results

A total of 47 critically ill patients (32 men, mean age 66 ± 9 years, mean SOFA-score on admission 9 ± 3) with Clostridium non-difficile infection were included in this study. The most common pathogens were Clostridium innocuum (n = 23), Clostridium perfringens (n = 11), Clostridium tertium (n = 6) and others (n = 7). Pathogens were detected in 62% intra-abdominal, in 29% in blood cultures and 8% of patients had soft tissue infection. Intra-abdominal infections (71%) were the most common source of infection.

Admission diagnoses were septic shock (54%), surgical treatment (44%) and others (2%). Highest incidence of septic shock was seen in patients with Clostridium

innocuum infection, ($p < 0.05$). Preexisting, mostly abdominal (90%) malignancy was seen in 46% of these patients. Invasive ventilation was needed in 50%, vaso-pressor therapy in 71% and renal replacement therapy in 38%. The overall ICU mortality was 45%. Highest ICU mortality rate was found in patients with Clostridium innocuum infection (45%), followed by Clostridium perfringens (23%) and Clostridium tertium (17%). Patients with septic shock showed significantly higher mortality rates ($p < 0.05$). By means of source of infection highest mortality rate was found in abdominal infection (65%) followed by bacteremia (43%).

Conclusions

Clostridium non-difficile infection in critically ill patients is associated with high mortality and organ failure. Worst outcome was observed in patients with septic shock.

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