

***Clostridium Difficile* Infection in Rectal Cancer Patients after Diverted Loop Ileostomy Closure**

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**Abstract**

**Aim:** *Clostridium difficile* infection is a cause of increased morbidity and mortality in hospitals, particularly in patients with cancer pathology. There are several factors favouring the development of *Clostridium difficile* infection among cancer patients, including age, exposure to antibiotic and proton pump inhibitors therapy, and chemotherapy. This study was conducted to observe the prevalence of *Clostridium difficile* infection after the reversal of ileostomy loop for rectal cancer surgery, which were initially operated either open or laparoscopic.

**Method:** A retrospective study was performed on patients who were operated in a single surgical team for rectal cancer who benefited of a diverted loop ileostomy over a 4-year period.

**Results:** 23 patients were documented with *Clostridium difficile* infection out of a total of 63. All 23 patients underwent ileostomy closure later than 3 months after primary surgery, and post-operatively received antibiotic therapy associated with proton pump inhibitors in the first 24 hours.

**Conclusions:** Closure of ileostomy later than 3 months after primary surgery, combined with chemotherapy, antibiotic therapy and proton pump inhibitors, increases the risk of developing *Clostridium difficile* infection.

**Key words:** *Clostridium difficile*, loop ileostomy, closure