

Original Research Article

Morbidity and Postoperative Mortality of Colorectal Tumors

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Abstract: Colorectal cancer, by its frequency and severity, represents a serious public health problem worldwide. In Morocco, the incidence of colorectal cancer is constantly increasing. Post-operative morbidity and mortality is an event whose evaluation and analysis are necessary to improve surgical results and optimize patient care. Thus, knowledge of the causes and risk factors of morbidity and mortality will contribute not only to a better evaluation of patients candidates for colorectal surgery, but also to reveal new avenues of research to improve the post-operative prognosis of these patients. The objective of this retrospective work is to carry out an epidemiological study of the morbidity and mortality of patients admitted during the postoperative period of colorectal surgery to the surgical intensive care unit of the Ibn Rochd University Hospital in Casablanca; as well as the search for potential predictive factors associated with it.

Keywords: Morbidity, mortality, colorectal tumors, postoperative.

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INTRODUCTION

Colorectal cancer is a frequent and serious disease that represents a worldwide health issue. Despite the major progress in surgical procedures, sophisticated equipment and the application of universal principles of asepsis in operating theatres, postoperative complications are still frequent. The aim of the present study is to evaluate the postoperative morbidity and mortality of colorectal tumors, as well as to investigate potential associated factors.

MATERIALS AND METHODS

Our work is a retrospective study conducted over a period of 5 years, between January 2017 and December 2021, concerning 125 patients who met the inclusion and exclusion criteria and were admitted during the postoperative period to the surgical intensive care unit of the In Rochd University Hospital in Casablanca.

RESULTS

The mean age of our patients was 59 years, 56% of them were females. The rectum was the most frequent location in 53.6% of cases. The presence of a medical history was reported in 42.2% of the patients studied. The diagnosis was often made at a late stage, 20% of cases at a complicated stage. The postoperative morbidity rate was 27.2%, and the percentage of severe

complications with a grade greater than or equal to 3 according to the Dindo-Clavien classification was 16.8%. Infectious complications were the most frequent, predominantly generalized peritonitis, surgical site infection, anastomotic leak and pulmonary or urinary tract infections. The mortality rate was 9.6%. Septic shock was the most common cause of death.

The identified risk factors for the mortality were the presence of a medical history, the smoking status and the preoperative albumin level. Whereas the preoperative albumin level was the only significant associated risk factor concerning the morbidity.

DISCUSSION

Our study noted a mortality rate of 9.6%. This result remains high compared to Western studies in which this rate varied between 1 and 5.3%. The main cause of death in our study was septic shock, followed by hypoxic cardiorespiratory arrest and hemorrhagic shock. The series by Slankamenac K. *et al.*, finds five deaths. Two of these five patients died as a result of hemorrhagic shock, and the other three patients died as a result of cardiac arrest, multiple organ failure, and isolated hepatic failure. In the rest of the Western studies, the cause of death was not specified.

We find in the literature that multiple studies have evaluated the predictive factors of overall morbidity

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and mortality after colorectal surgery. These factors include advanced age, comorbidities, preoperative hypoalbuminemia, emergency surgery as well as a duration of the surgical procedure greater than 2 hours. Some studies find an association between male gender, grade ASA, smoking, and severity of complications after colorectal surgery, other studies, however, show that age has no significant impact on postoperative morbidity and mortality after colorectal cancer surgery. However, factors indicating frailty in older patients, such as low albumin levels, may significantly influence postoperative outcomes.

CONCLUSION

Our study showed that although much work has been done to reduce postoperative morbidity and improve patient outcomes in colorectal surgery, there is still much to be done to prevent the occurrence of infectious complications.

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