Curr Probl Cancer 41 (2017) 231–240

Contents lists available at ScienceDirect

Curr Probl Cancer

journal homepage: www.elsevier.com/locate/cpcancer

Effectiveness between early and late temporary ileostomy closure in patients with rectal cancer: A prospective study

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ARTICLE INFO

Keywords:
Rectal cancer
Ileostomy
Stoma closure
Timing
Chemotherapy
Complications

ABSTRACT

A temporary stoma is often used in rectal cancer surgery to protect a distal anastomosis, which remains a major concern after rectal cancer surgery, particularly after low anterior resection. The temporary stoma is scheduled for closure. However, the optimal time of closure of the protecting stoma remains unclear because of sparse studies and data. We aimed to detect the efficacy between early and late temporary ileostomy closure in patients with rectal cancer during or after neoadjuvant chemoradiotherapy. We conducted a prospective, 2-group design between early and late ileostomy closure group in patients after rectal cancer surgery with temporary stoma. Participants were recruited in a teaching hospital in Guangzhou, China. A total of 161 patients confirmed diagnosis of rectal cancer underwent curative surgery and temporary ileostomy. Participants with temporary ileostomy received closure surgery after 1 (early)

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http://dx.doi.org/10.1016/j.currproblcancer.2017.02.007

or 6 (late) months were assessed by clinical parameters and quality of life. Patients in late closure group received more adjuvant chemotherapy cycles but with comparable incidence of stoma closure–related complications and length of hospital stay compared to early closure group. Participants in late closure group with standardized postoperative chemotherapy might have a better prognosis compared with those in early closure group. An increased emphasis should be given to choose the optimal closure time of patients with rectal cancer having temporary ileostomy. Colorectal nurses could provide support to physician for observation of prognosis of different closure time.

Introduction

A temporary stoma is often used in rectal cancer surgery to protect a distal anastomosis, which remains a major concern after rectal cancer surgery, particularly after low anterior resection. Previous studies and meta-analyses have demonstrated that a dysfunctioning loop stoma, which decreased the rate of symptomatic anastomotic leakage and urgent reoperation, should be recommended in low anterior resection for rectal cancer.[1-3]

The temporary stoma is scheduled for closure. However, the optimal time of closure of the protecting stoma remains unclear because of sparse studies and data. The reason of those surgeons who prefer not to perform closure surgery early was that patients require sufficient time to prevent anastomotic leakage, recovery from the initial resection, resolution of inflammation and edema within the abdomen and around the stoma, and softening of abdominal adhesions.[4,5] In contrast, other surgeons regard early stoma closure as a method to reduce peristomal adhesion and to limit the magnitude of impairment of absorption and motility.[6] Moreover, subjectively, patients with stoma expect to have them closed early because stoma creation causes difficulties in exercise, sleep, social activities, sexuality, and clothing as well as altered body image.[7-9]

Few retrospective studies have focused on the optimal time for loop ileostomy closure in patients with rectal cancer, and no quality of life (QOL) measurements were included in these studies.[10,11] Disputes about ileostomy closure timing and the lack of reliable evidence have confused colorectal surgeons, which prompt us to perform this study. In this prospective, nonrandomized study, we compared the prognosis between an early closure (EC) group and a late closure (LC) group, aiming to investigate the optimal time for temporary stoma closure after rectal cancer surgery.

Method

Design and setting

This study was a nonrandomized, controlled prospective study examining the optimal time for temporary stoma closure rectal cancer surgery. One teaching hospital participated in the study.