

## 054. Loop Ileostomy Versus Loop Colostomy to Prevent Complications of Anterior Resection for Rectal Cancer: A Systematic Review and Meta-Analysis

Pande Ayu Kirana Dewi<sup>1</sup>, I Made Mulyawan<sup>2</sup>

<sup>1</sup>General Surgery Resident, Medical Faculty of Udayana University, Prof IGNG Ngoerah General Hospital, Denpasar, Bali, Indonesia

<sup>2</sup>Digestive Surgery Division, Department of Surgery, Medical Faculty of Udayana University, Prof IGNG Ngoerah General Hospital, Denpasar, Bali, Indonesia

### ABSTRACT

**Background:** Anastomotic leaking constitutes a significant complication of colorectal cancer surgery, extending hospitalizations and adversely affecting patient prognosis. The preventative defunctioning stoma was created to diminish reoperation morbidity and death in high-risk anastomoses. Nonetheless, it is still uncertain if the often-employed loop colostomy (LC) or loop ileostomy (LI) can mitigate the risks associated with colorectal surgery. This study aims to evaluate the morbidities associated with LC and LI following anterior rectal cancer resection. **Methods:** We searched PubMed, Embase, WileyOnline Library, and the Cochrane Library to identify studies and trials published from 2019 to early 2024. The results of this investigation included stoma formation, stoma restriction, stoma stricture, and necrosis. We employed Revman 5.4.2 to do the meta-analysis. **Results:** Five studies were considered, comprising 1,011 patients, with 482 undergoing loop ileostomy and 529 undergoing loop colostomy. Our findings indicate that loop ileostomy was correlated with a reduction in the incidence of stoma formation, with a relative risk (RR) of 1.31 (95% CI [1.14; 1.49],  $p < 0.0001$ ), and a decrease in stoma stricture, with an RR of 0.45 (95% CI [0.28; 0.72],  $p = 0.0009$ ). Our results reveal that loop ileostomy was associated with an increased incidence of stoma retraction (RR 0.50, 95% CI [0.18; 1.37],  $p = 0.17$ ) and necrosis (RR 0.84, 95% CI [0.47; 1.49],  $p = 0.54$ ). **Conclusion:** This study demonstrated that loop ileostomy was related to reducing the incidence of stoma formation and stoma restriction. Additional investigations are required to validate these findings.

**Keywords:** Loop colostomy, Loop ileostomy Colorectal cancer, Anastomotic leakage, Morbidity, Complications

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