



COMPARISON OF EARLY VERSUS TRADITIONAL RESUMPTION OF FEEDING AFTER CLOSURE OF COLOSTOMY AMONG PEDIATRIC PATIENTS: A META-ANALYSIS



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Introduction

Colostomy is a common treatment of many conditions in pediatric patients. Its closure may present with complications like wound infection and dehiscence, small bowel obstruction, incisional hernia and even death. This study aims to compare the outcomes of early versus delayed resumption of feeding post colostomy closure among pediatric patients.

Objectives

To determine the outcomes of early versus traditional resumption of feeding after closure of colostomy among pediatric patients and compare their length of post-operative hospital stay.

Methodology

A meta-analysis involving three observational studies was conducted using the following databases: PubMed, Embase, Medline, and the Cochrane database of controlled trials. The search included studies up to September 2020.

Results

Three studies found were conducted in Asia, from 2003 – 2015. Patient's ages were between 2 to 144 months. The pooled odds ratio demonstrated that early feeding was significantly associated with decreased likelihood of fever (OR=0.28, 95%CI=0.10-0.81). No significant difference was observed in the likelihood of vomiting (OR=1.20, 95%CI=0.34-4.26), diarrhea (OR=0.55, 95%CI=0.03-10.93), wound disruption or dehiscence (OR=0.94, 95%CI=0.10-9.28), and overall complications (OR=0.42, 95%CI=0.07-2.60). Early feeding was significantly associated with decreased post-operative length of stay (MD=-3.10, 95%CI= -4.81 to -1.38).

Conclusions & Recommendations

Early resumption of feeding was seen to be as safe as traditional feeding. However, it is recommended since it may decrease the length of post-operative hospital stay by almost 3 days. Randomized clinical trials with large sample size are recommended to validate these findings.

Keywords

Feeding, colostomy, pediatric or child or infant or neonate, surgery or post-operative