

INPLASY PROTOCOL

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Conflicts of interest: No.

Stent expansion limited surgery versus emergency surgery for colon cancer with malignant bowel: A meta-analysis

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Review question / Objective: Through the five aspects of the research object, intervention measures, control measures, outcome indicators and research design, the clear research questions that need to be solved are proposed.

Condition being studied: (1) patients with colon cancer with malignant intestinal obstruction (2) two groups of studies: stent expansion surgery and emergency surgery group (3) all cases can be removed (4) indicators included in the study: ① Mortality ② Anastomotic fistula ③ Infection at the surgical site.

Information sources: Pubmed, Embase, Cochrane.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 25 April 2020 and was last updated on 25 April 2020 (registration number INPLASY202040171).

INTRODUCTION

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METHODS

Search strategy: The following MeSH terms and their combinations will be searched in (Title/Abstract): “colonic neoplasms”OR“colonic neoplasms” OR“colon” OR“cancer” OR“colon cancer” OR“emergency surgery” OR“operative surgical procedures”OR“intestinal obstruction”OR “stents expansion”.The related-articles function will be used to increase the search scope, and the computer search will be supplemented with manual screening of the reference lists of all retrieved studies, review articles and conference abstracts.

Participant or population: Six people.

Intervention: Stent expansion.

Comparator: Mortality.

Study designs to be included: A flowchart report.

Eligibility criteria: Except for RCT, each study was assigned a score of 0-9. RCT and observational studies that scored 6 or more are considered high quality.

Information sources: Pubmed, Embase, Cochrane.

Main outcome(s): Anastomotic fistula: 7 literature data were collected in this study [3, 11-16], as shown in Figure 2 in this study. Heterogeneity test $p = 0.66$, $I^2 = 0\%$; therefore, a fixed effect model was used. Overall effect test: OR was 1.07 (95% CI: 0.61-1.88, $p = 0.81$). A meta-analysis showed that the use of colonic stents did not increase the incidence of anastomotic leakage compared to emergency surgery.

Data management: Data analysis was performed using RevMan 5.3 (Cochrane Collaboration). Heterogeneity was evaluated using X^2 and I^2 tests. If there is no heterogeneity ($p > 0.1$, $I^2 < 50\%$) in the study, we use a fixed effect model. When $p > 0.1$, we believe that the study exhibits heterogeneity and was selected for analysis using a random effects model. The

identified heterogeneity was then further analyzed. Using the odds ratio (OR) to describe the number of numerical data, we calculated the 95% confidence interval (CI) for all the numbers, and $p < 0.05$ was considered significant.

Quality assessment / Risk of bias analysis: Unnel diagram of a patient with colon cancer malignant obstruction as a bridge for surgical resection and emergency surgery.

Strategy of data synthesis: Comply with the PRISMA statement.

Subgroup analysis: not Subgroup analysis.

Sensibility analysis: Not.

Country(ies) involved: China America.

Keywords: Colon cancer; stent expansion; emergency surgery; alignant intestinal obstruction.

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