



# COMPARING ENDOSCOPIC SUBMUCOSAL DISSECTION WITH LAPAROSCOPIC-ASSISTED COLORECTAL SURGERY FOR COLORECTAL CANCER- A SYSTEMATIC REVIEW



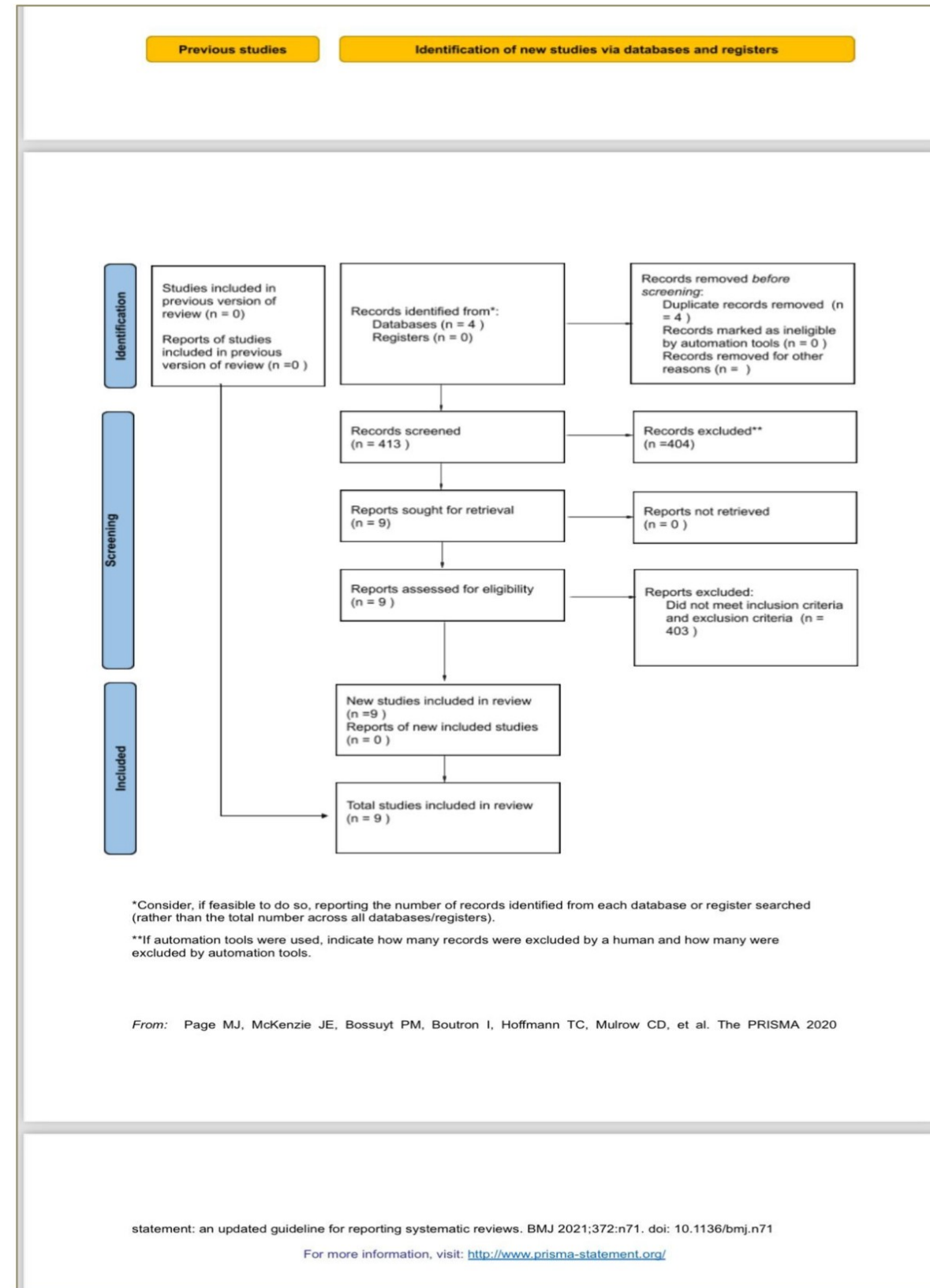
Aakash, Fnu ; kumari, Aasta ; Kumar, Sunny ; Anwar, Abdus Sameey ; Bai, Pinky ; Ray, Rubela ; Rehman, Osama Abdur ; Malapati, Sai Nikhitha ; Patel, Kristina ; Panjiyar, Binay Kumar

## Introduction

Endoscopic submucosal dissection (ESD) is gaining popularity as a technique for resecting early-stage colorectal cancer, compared to the commonly used laparoscopic-assisted colorectal surgery (LAC). This study aims to compare the effectiveness and outcomes of ESD and LAC as treatment approaches for early-stage colorectal cancer

## Methods

A systematic literature review was conducted to evaluate studies comparing ESD and LAC in the treatment of early colorectal neoplasms. The literature search was performed across databases, including PubMed, Google Scholar, ScienceDirect, and Cochrane from their inception to November 30, 2024. The inclusion criteria were observational studies and randomized controlled trials (RCTs) that reported on outcomes related to ESD and LAC in early colorectal cancer. The quality of the studies was assessed using the Newcastle–Ottawa Quality Assessment Scale for observational studies and the Cochrane Risk of Bias (RoB) tool for RCTs.



## Results

Seven high-quality observational studies and one RCT were included. The studies demonstrate that ESD is an effective, minimally invasive treatment for early colorectal neoplasms, including large adenomas and superficial colorectal cancers. ESD offers lower complication rates and shorter recovery times. ESD provided a high en-bloc resection rate and was associated with fewer complications. However, LAC was a better option for deeply invasive cancers because it provided more extensive resection and better lymph node evaluation. The recurrence-free survival and overall survival rates for early-stage colorectal cancers were similar in both treatment groups, with no significant difference in 3- and 5-year survival outcomes.

## Conclusion

ESD is a safe and effective alternative to LAC for early colorectal neoplasms, offering lower complication rates, shorter hospital stays, and faster return to normal diet and mobilization. We recommend further randomized controlled trials and prospective studies to more definitively evaluate the long-term oncological outcomes of ESD versus LAC.