International Platform of Registered Systematic Review and Meta-analysis Protocols

INPLASY

Safety and Efficacy of Cold / Hot Snare Resection and Endoscopic Mucosal Resection for Colonic Polyps: A Network Meta-Analysis

INPLASY202560120

doi: 10.37766/inplasy2025.6.0120

Received: 30 June 2025

Published: 30 June 2025

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ADMINISTRATIVE INFORMATION

Support - No support.

Review Stage at time of this submission - Data analysis.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY202560120

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 30 June 2025 and was last updated on 30 June 2025.

INTRODUCTION

Review question / Objective To research the Safety and Efficacy of Cold Snare Resection, Hot Snare Resection, Cold Endoscopic Mucosal Resection and Hot Endoscopic Mucosal Resection for Colon Polyps.

Condition being studied There are many RCTs to investigate the effect between two or three treatments of CSP/HSP/CEMR/HEMR, but the overall effect and safety was unclear.

METHODS

Search strategy Pubmed search: (Colorectal Neoplasms OR “Colorectal lesion” OR “Colorectal lesions” OR “Bowel lesion” OR “Bowel lesions” OR “intestinal lesion” OR “intestinal lesions” OR "Colorectal Polyp” OR “Colorectal Polyps” OR “Bowel polyp” OR “Bowel polyps” OR “intestinal polyp” OR “intestinal polyps” OR “duodenum Neoplasms” OR “duodenum lesion” OR “duodenum lesions” OR “duodenum Polyp” OR “duodenum Polyps” OR “duodenum polyps”) AND (EMR OR “endoscopic mucosal resection” OR “endoscopic mucosal resections” OR “submucosal injection” OR “cold snare” OR “cold snaring” OR “hot snare” OR “hot snaring”) AND (polypectomy OR polypectomies OR resection OR resections) AND (“randomized controlled trial” OR “controlled clinical trial” OR randomized OR placebo OR “drug therapy" OR randomly OR trial OR groups).

Participant or population Patients with colon polyps, underwent CSP/HSP/CEMR/HEMR.

Intervention Cold Snare Resection, Hot Snare Resection, Cold Endoscopic Mucosal Resection and Hot Endoscopic Mucosal Resection.

Comparator Every intervention will be as reference.

Study designs to be included RCTs.

Eligibility criteria Exclusion criteria were established: 1. Case report, 2. Comments

materials, 3. Guideline articles, 4. meta analysis articles, 5. review artucles, 6. outcome not intertested in this study, 7. data not available, 8. non random controled trails, 9. study not completed.

Information sources Pubmed, Embase, Cochrance, CNKI, Wangfang, Sinomed.

Main outcome(s) Complete resection rate.

Additional outcome(s)
en bloc resection rate
procedure time
proceduring bleeding rate
delayed bleeding rate
perforation rate
clip use.

Data management Endnote.

Quality assessment / Risk of bias analysis Cochrane collaboration's tool for assessing risk of bias.

Strategy of data synthesis The "gemtc" package was employed to conduct a network meta-analysis. The "network" function was utilized to generate the network diagram, and a random-effects model was applied to evaluate the results of the network meta-analysis. Markov Chain & Monte Carlo simulation was used for sampling and I^2 calculation, and the Bayesian code of the model is provided in the Supplementary Material. Convergence diagnostics were performed using the "gelman" function. Treatment rankings were generated via the "ranks" function and visualized through a rank chart and SUCRA values. The similarity among all included studies was assessed by investigator judgment in conjunction with the Cochrane Risk of Bias tool.

Subgroup analysis
polyps size less than 10mm
polyps size more than 10mm.

Sensitivity analysis Consistency and heterogeneity were evaluated using the node-splitting method and presented graphically via forest plots.

Language restriction No limit.

Country(ies) involved China.

Keywords Cold Snare Resection; Hot Snare Resection; Endoscopic Mucosal Resection; Colon adenoma; Network Meta Analysis.

Contributions of each author
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