

INPLASY

Cold snare polypectomy with submucosa injection versus without injection for diminutive and small colorectal polyps: A systematic review and meta-analysis

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ADMINISTRATIVE INFORMATION

Support - None.

Review Stage at time of this submission - Completed but not published.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 30 October 2023 and was last updated on 30 October 2023.

INTRODUCTION

Review question / Objective The guidelines recommend conventional cold snare polypectomy (C-CSP) for diminutive and small colorectal polyps ($\leq 10\text{mm}$). But it is unclear whether CSP with submucosal injection (SI-CSP) comparable efficacy to that of C-CSP for management of these lesions. To compared SI-CSP with C-CSP for patients with diminutive and small colorectal polyps.

Condition being studied Recent studies find some conflicting results between C-CSP and SI-CSP for these lesions. Therefore, we perform a systematic review and meta-analysis of the efficacy and safety for the both.

METHODS

Search strategy The search strategy in PubMed

1 "Colonic Polyps"[Mesh] 10039

2 colorectal polyps [Title/Abstract] 2945

3 (colorectal polyps [Title/Abstract]) OR ("Colonic Polyps"[Mesh]) 11355

4 submucosal injection [Title/Abstract] 827

5 cold snare [Title/Abstract] 367

6 endoscopic mucosal resection [Title/Abstract] 3651

7 (endoscopic mucosal resection [Title/Abstract]) OR (cold snare [Title/Abstract]) 3926

8 ((endoscopic mucosal resection [Title/Abstract]) OR (cold snare [Title/Abstract])) AND (submucosal injection [Title/Abstract]) 164

9 (((endoscopic mucosal resection [Title/Abstract]) OR (cold snare [Title/Abstract])) AND (submucosal injection [Title/Abstract])) AND ((colorectal polyps [Title/Abstract]) OR ("Colonic Polyps"[Mesh])) 50

The search strategy in Cochrane library

1 MeSH descriptor: [Colonic Polyps] explode all trees 691

2 (colorectal polyps):ti,ab,kw 1783

3 #1 or #2 2034

4 (cold snare):ti,ab,kw 249

5 (endoscopic mucosal resection):ti,ab,kw 788

6 #4 or #5 977

7 (submucosal injection):ti,ab,kw 552
 8 #6 and #7 137
 9 #3 and #8 57
 The search strategy in Cochrane library
 1 MeSH descriptor: [Colonic Polyps] explode all trees 691
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 6 #4 or #5 977
 7 (submucosal injection):ti,ab,kw 552
 8 #6 and #7 137
 9 #3 and #8 57.

Participant or population Patients with diminutive and small colorectal polyps ($\leq 10\text{mm}$).

Intervention Cold snare polypectomy with submucosal injection.

Comparator Conventional cold snare polypectomy.

Study designs to be included compared SI-CSP with C-CSP for patients with diminutive and small colorectal polyps.

Eligibility criteria Included studies that reported colorectal polyps ($< 10\text{mm}$) resection data using SI-CSP and C-CSP in cohort studies.

Information sources We retrieved online electronic libraries (PubMed, EMBASE, Cochrane Library, Chinese Journals Full-text, and Wanfang) from inception through October 23, 2023 for studies comparing SI-CSP with C-CSP in resection of diminutive and small colorectal polyps. The following terms: "colorectal polyps", "colonic polyps", "cold snare", "endoscopic mucosal resection", "cold snare", and "submucosal injection" were used to retrieve the relative studies. The interesting references of included studies were screened. There were not limited in language.

Main outcome(s) The primary outcome was complete resection rate.

Additional outcome(s) Secondary outcomes were polypectomy time and complications (immediate bleeding, delay bleeding, and perforation).

Quality assessment / Risk of bias analysis The quality of studies was assessed using the Newcastle-Ottawa scoring system.

Strategy of data synthesis For continuous variables, mean difference with 95% confidence

intervals (CI) were applied. For categorical variables, odds ratios (OR) with 95% CI were performed. Data were analyzed using random effects model; I² test was calculated for heterogeneity.

Subgroup analysis Subgroup analysis based on the different skills of endoscopists, polyp size, and polyp location, etc.

Sensitivity analysis After deleting any one of included studies, the pooled results of the remaining studies were not significantly different from those without deleting, which meant that the sensitivity analysis was passed.

Language restriction no language restriction.

Country(ies) involved China(Zhenning Buyi and Miao Autonomous County People's Hospital).

Keywords diminutive; colorectal polyps; cold snare polypectomy; complete resection rate; submucosal injection; conventional; meta-analyses.

Contributions of each author

Author 1 - Lv Yongcai - Author 1: Lv Yongcai designed the study; Lv Yongcai participated in the acquisition, analysis, and interpretation of the data; Lv Yongcai wrote the manuscript.

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