INPLASY PROTOCOL

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Review Stage at time of this submission: **The review has not yet started.**

Conflicts of interest:
None.

Effectiveness of underwater endoscopic mucosal resection versus conventional endoscopic mucosal resection for 10-20 mm colorectal polyps: A protocol of systematic review and meta-analysis

Liu, Y[1]; Shi, M[2]; Ren, J[3]; Zhou, XL[4]; Liu, S[5].

Review question / Objective: **To compare the effectiveness of underwater endoscopic mucosal resection (UEMR) and conventional endoscopic mucosal resection (EMR) in the management of 10-20 mm colorectal polyps.**
Condition being studied: **Underwater endoscopic mucosal resection, conventional endoscopic mucosal resection, colorectal polyp, protocol, systematic review.**
Information sources: **PubMed, Embase, Cochrane Library, Web of Science, China National Knowledge Infrastructure, China Science and Technology Journal Database and Chinese Biomedical Literature Database will be searched from inception of databases to November 2020 without language limitation. The detailed search strategy for PubMed will be created. The similar search strategies will be used for other electronic databases.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 03 October 2020 and was last updated on 03 October 2020 (registration number INPLASY2020100006).

INTRODUCTION

Review question / Objective: **To compare the effectiveness of underwater endoscopic mucosal resection (UEMR) and conventional endoscopic mucosal resection (EMR) in the management of 10-20 mm colorectal polyps.**

Condition being studied: **underwater endoscopic mucosal resection, conventional endoscopic mucosal**

resection, colorectal polyp, protocol, systematic review.

METHODS

Participant or population: Participants diagnosed with 10-20 mm colorectal polyps will be included without restrictions of nationality, age, gender, and race.

Intervention: In the treatment group, patients were given UEMR.

Comparator: It the control group, patients were given conventional EMR.

Study designs to be included: All randomized controlled trials (RCTs) comparing the effectiveness of UEMR and conventional EMR for 10-20 mm colorectal polyps will be included without language limitation. Case reports, animal experiments and reviews will be excluded.

Eligibility criteria: RCTS comparing the effectiveness of UEMR and conventional EMR for 10-20 mm colorectal polyps will be included.

Information sources: PubMed, Embase, Cochrane Library, Web of Science, China National Knowledge Infrastructure, China Science and Technology Journal Database and Chinese Biomedical Literature Database will be searched from inception of databases to November 2020 without language limitation. The detailed search strategy for PubMed will be created. The similar search strategies will be used for other electronic databases.

Main outcome(s): Complete resection rate, residual polyp rate and recurrence rate will be designated as the primary outcome.

Additional outcome(s): Secondary outcomes will include procedure time in minutes and the incidence of adverse events (such as immediate bleeding, delayed bleeding, post-polypectomy electrocoagulation syndrome, and delayed perforation).

Quality assessment / Risk of bias analysis: The Cochrane risk of bias assessment tool will be used to assess the risk of bias of the selected studies. Seven items such as random sequence generation, allocation concealment, blinding of participants and personnel, blinding of outcome assessment, incomplete outcome data, selective reporting and other bias will be assessed by two reviews independently. A bias value of 'high', 'unclear', or 'low' was given for each item. The rating results will be cross-checked and the difference will be solved by the third reviewer.

Strategy of data synthesis: Review Manager Software 5.3 will be used for data synthesis. Risk ratio will be used for dichotomous outcomes with 95% confidence interval. Continuous outcomes will be presented as mean difference or standardized mean difference with 95% confidence interval. The random effects model or fixed effects model will be selected according to the I2 value. Heterogeneity will be examined using the I2 test. The I2 value > 50% means significant heterogeneity, and the random effects model will be used. Otherwise, the I2 value ≤ 50% means minor heterogeneity, and the fixed effects model will be utilized. If significant heterogeneity still exists after subgroup analysis, meta-analysis will not be pooled, and descriptive summary will be reported.

Subgroup analysis: Subgroup analysis will be performed to check the potential heterogeneity and inconsistency based on the different participant characteristics and outcome indicators.

Sensibility analysis: Sensitivity analysis will be applied to check the robustness and reliability of pooled results. We will perform meta-analysis again after eliminating studies in low quality and will apply different statistical methods.

Country(ies) involved: China.

Keywords: underwater endoscopic mucosal resection, conventional

endoscopic mucosal resection, colorectal polyp, protocol, systematic review.

Contributions of each author:
Author 1 - Yi Liu.
Author 2 - Min Shi.
Author 3 - Jun Ren.
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