

INPLASY PROTOCOL

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Risk factors for major Low Anterior Resection Syndrome: A meta-analysis

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No conflict of interest.

Review question / Objective: The aim of this meta-analysis to summarize the risk factors of Low Anterior Resection Syndrome (LARS) from studies using the LARS score

Condition being studied: With advances in rectal cancer surgical technique and the use of adjuvant therapy over recent decades, patient's survival rate have greatly improved. However, These patients still have a poorer Quality of Life ,include faecal incontinence, frequent bowel movements, urgency and emptying difficulties, these symptoms are called Low Anterior Resection Syndrome (LARS). At present, many literature have reported the risk factors (neoadjuvant chemoradiotherapy, anastomotic height, etc) of LARS, but there is no unified conclusion.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 17 November 2020 and was last updated on 17 November 2020 (registration number INPLASY2020110071).

INTRODUCTION

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METHODS

Participant or population: Patients after rectal cancer surgery.

Intervention: Patients with major LARS (30-42 points).

Comparator: Patients with no LARS (0-20 points) or minor LARS (21-29 points).

Study designs to be included: case-control study.

Eligibility criteria: The criteria for inclusion were primary studies which assessed causative factors for LARS and using LARS score . Articles written in English and Chinese were included. When a study reporting the same patient cohort was included in several publications, only the most recent or complete study was selected. Exclusion criteria included i) case reports, letters, and reviews without original data; ii) animal or laboratory studies.

Information sources: English electronic database include PubMed, EMBASE, Cochrane Library; Chinese electronic database include CNKI, China Science and Technology Journal Database, Wanfang Data, CBMdisc; grey literature.

Main outcome(s): Risk Factors (A pooled odd ratio (OR) with 95% confidence intervals (CIs) was used to assess outcomes of the studies.)

Quality assessment / Risk of bias analysis: The selected articles were critically assessed using the validated quality assessment NOS(Newcastle-Ottawa quality assessment Scale)and independently by 2 authors.

Strategy of data synthesis: We will use Review Manager 5.3 for meta-analysis. The Cochrane Q test was used to evaluate the heterogeneity among the studies, and I² was used to evaluate the degree of heterogeneity among the included studies. When $P > 0.1$ and $I^2 < 50\%$, there is no significant heterogeneity in each study, and then using the fixed effects model; otherwise, the random effects model was used. The funnel plot was used to estimate whether there was publication bias.

Subgroup analysis: We will consider subgroups such as country, the time postoperatively.

Sensibility analysis: An influence analysis will be performed to ascertain the results of the meta-analysis by excluding each of the individual studies.

Country(ies) involved: Mainland China.

Keywords: Low Anterior Resection Syndrome; Risk factor; Meta-analysis.

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