

INPLASY PROTOCOL

To cite: Liu et al. Effectiveness of biofeedback training on prevention of anterior resection syndrome in postoperative patients with rectal cancer: a systematic review of meta-analysis. Inplasy protocol 202170051. doi: 10.37766/inplasy2021.7.0051

Received: 16 July 2021

Published: 17 July 2021

Corresponding author:
Jin Zheng

9596909@qq.com

Author Affiliation:
The First Hospital of China
Medical University.

Support: None.

Review Stage at time of this submission: Data extraction.

Conflicts of interest:
None declared.

Effectiveness of biofeedback training on prevention of anterior resection syndrome in postoperative patients with rectal cancer: a systematic review of meta-analysis

Liu, YH¹; Zheng, J²; Sun, Q³; Li, N⁴.

Review question / Objective: Whether biofeedback training is effective in preventing postoperative anterior resection syndrome in patients with middle and low rectal cancer.

Condition being studied: Patients with rectal cancer surgery often experience the anterior resection syndrome, which has a negative impact on quality of life. Currently there is no specific treatment for anterior resection syndrome, mainly for symptomatic management. Some studies have reported the beneficial effects of drug use, anal obstruction, rectal lavage, biofeedback training and pelvic rehabilitation on rectal function. In constipation and other diseases, biofeedback training is considered to be an effective, safe, non-invasive and economical way, but the therapeutic effect of biofeedback training in preventing anterior resection syndrome of rectal cancer remains unclear.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 17 July 2021 and was last updated on 17 July 2021 (registration number INPLASY202170051).

INTRODUCTION

Review question / Objective: Whether biofeedback training is effective in preventing postoperative anterior resection syndrome in patients with middle and low rectal cancer.

Condition being studied: Patients with rectal cancer surgery often experience the anterior resection syndrome, which has a negative impact on quality of life. Currently there is no specific treatment for anterior resection syndrome, mainly for symptomatic management. Some studies have reported the beneficial effects of drug

use, anal obstruction, rectal lavage, biofeedback training and pelvic rehabilitation on rectal function. In constipation and other diseases, biofeedback training is considered to be an effective, safe, non-invasive and economical way, but the therapeutic effect of biofeedback training in preventing anterior resection syndrome of rectal cancer remains unclear.

METHODS

Participant or population: Patients who experienced rectal cancer surgery with status of ostomy (temporary or permanent) will be included.

Intervention: All types of biofeedback training will be included. There are no restriction on the administration methods and duration of treatments.

Comparator: Baseline. Usual care. Excercise without biofeedback training.

Study designs to be included: Randomized controlled trials and prospective studies.

Eligibility criteria: Any detailed study on the application of biofeedback training in patients with low anterior resection syndrome of rectal cancer.

Information sources: A full search will be conducted in PubMed, Embase, the Cochrane Library database, CINAHL (Cumulative Index of Nursing and Allied Health), Web of Science, the China National Knowledge Infrastructure, Wanfang. Language will be restricted to English and Chinese. There will be no no restriction on publication date.

Main outcome(s): Low anterior resection syndrome score (LARS score); Wexner Fecal Incontinence Score(Wexner score).

Additional outcome(s): Memorial Sloan-Kettering Cancer Center Bowel Function Instrument (MSKCC BFI); Incidence of anterior resection syndrome.

Quality assessment / Risk of bias analysis:

Two independent reviewers will assess the risk of bias and quality of studies according to the guidelines. For RCT studies, the quality will be assessed by the Cochrane Collaboration tool. For other study designs, the quality will be assessed by the Newcastle-Ottawa-Scale (NOS). Any disagreements that arise will be resolved through discussion, or with a third individual.

Strategy of data synthesis: Papers will be pooled in statistical meta-analysis using Revman 5.3. Effect sizes will be expressed as either odds ratios (for dichotomous data and weighted (or standardized) mean differences (for continuous data) and their 95% confidence intervals will be calculated for analysis Modify as appropriate. And meta-analysis will be used unless the heterogeneities of articles suggests the combination is unreasonable.

Subgroup analysis: If necessary, the subgroup analyses will be considered.

Sensitivity analysis: The sensitivity analysis will be performed to test the stability of the results of meta-analysis by removing the low quality studies.

Country(ies) involved: China.

Keywords: Anterior resection syndrome; Rectal cancer; Biofeedback; Meta-analysis.

Contributions of each author:

Author 1 - Yahui Liu.
Email: lyhcmu@163.com
Author 2 - Jin Zheng.
Author 3 - Qian Sun.
Email: 2621495780@qq.com
Author 4 - Niu Li.
Email: 1305815367@qq.com