INPLASY

Use of pectin-supplemented enteral nutrition in intensive care: a systematic review and meta-analysis

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ADMINISTRATIVE INFORMATION

Review Stage at time of this submission - Data analysis.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY202420045

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 09 February 2024 and was last updated on 09 February 2024.

INTRODUCTION

*R*eview question / Objective We aimed to conduct a systematic review and meta-analysis to evaluate the efficacy and safety of pectin-supplemented enteral nutrition for diarrhea and other important outcomes in ICU patients.

Condition being studied The research team comes from the Department of Critical Care Medicine of a tertiary hospital in China, and all the team members have perfect clinical experience in treatments for enternal nutrition. Moreover, our team members have published more than 10 meta-analyses, which can guarantee the successful completion of the current research.

METHODS

Participant or population Critically ill patients received EN.

Intervention pectin-supplemented enteral nutrition.

Comparator Non-pectin-supplemented enteral nutrition.

Study designs to be included RCT, observational studies.

Eligibility criteria (1) critically ill adult patients; (2) patients scheduled to undergo EN supplemented with or without pectin; and (3) studies reporting any efficacy and safetyoutcomes.

Information sources Articles available only in abstract form or meeting reports were also excluded.

Main outcome(s) The incidence of diarrhea.

Quality assessment / Risk of bias analysis We evaluated potential evidence of bias using the Cochrane ris k-of-bias test for RCTs.

Strategy of data synthesis An overall effect estimate for all data as a risk ratio (RR)/mean difference (MD) with a 95% CI will be calculated. The presence of statistical heterogeneity was addressed in the studies by using the Q statistic, and the heterogeneity was addressed by using the statistic. A P value of less than or equal to 0.1 or a I2 value greater than 50% was considered substantial heterogeneity.

Subgroup analysis
(1) sample size
(2) study design
(3) patient population
(4) route of EN
(5) diarrheal prevalence
(6) with or without proton pump inhibitor.

Sensitivity analysis We conducted sensitivity analyses to investigate the influence of a single study on the overall pooled estimate of each predefined outcome.

Country(ies) involved China.

Keywords pectin; critical illness; enteral nutrition; diarrhea; meta-analysis.

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