INPLASY

Sarcopenic obesity is significantly associated with poorer overall survival after liver transplantation: a systematic review and meta-analysis

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ADMINISTRATIVE INFORMATION

Review Stage at time of this submission - Data analysis.

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 17 February 2024 and was last updated on 17 February 2024.

INTRODUCTION

*R*eview question / Objective This meta-analysis aimed to evaluate whether pre-transplant sarcopenic obesity has an independent predictive value for survival in this population.

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 much clinical experience in treatments for external nutrition. Moreover, our team members have published more than 30 meta-analyses, which can guarantee the successful completion of the current research.

METHODS

Participant or population survival after liver transplantation (LT).

Intervention LT patients with sarcopenic obesity.

Comparator LT patients without sarcopenic obesity.

Study designs to be included RCT, observational studies.

Eligibility criteria 1) study design: any cohort study; 2) study population: adult (>18 years) patients receiving LT; 3) intervention: patients with SO (defined by the authors) compared with those

without SO (NSO) or non-sarcopenic non-obese (NN) patients.

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

Main outcome(s) all-cause mortality at any length of follow-up.

Quality assessment / Risk of bias analysis We evaluated the study quality using the Newcastle-Ottawa Scale (NOS) for included cohort studies.

Strategy of data synthesis Strategy for data synthesis We pooled the results of relevant studies to estimate pooled odds ratios (OR) and assigned 95 percent confidence intervals (CI) for dichotomous outcomes and mean differences (MD) and 95 percent CIs for continuous outcomes. We calculated the late OR and 95 % CI for studies that reported mortality rates between patients with and without myosteatosis. We used the I2 statistic to examine heterogeneity among the included studies. An I2> 50% indicates significant heterogeneity. We selected fixed-effect models for I2 < 50% and random- effect models for 之 50%.

Subgroup analysis We also conducted subgroup analyses of the primary outcome by pooling studies reporting different obesity definitions (i.e., BMI vs. VFA).

Sensitivity analysis We performed conducted sensitivity analyses by excluding one study at a time, to explore whether an individual study's particular result drove the results.

Country(ies) involved China.

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

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