INPLASY

Systematic review and meta-analysis of the incidence and influencing factors of sarcopenia in cirrhotic patients

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ADMINISTRATIVE INFORMATION

Support - Hainan Province health industry project.

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

Conflicts of interest - None declared.

INPLASY registration number: INPLASY202460087

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 23 June 2024 and was last updated on 23 June 2024.

INTRODUCTION

Review question / Objective What are the overall incidence rate and influencing factors of sarcopenia in patients with cirrhosis?

Rationale This systematic review is aimed at identifying the targeted articles and investigating the association between cirrhosis surgicaland sarcopenia enhance awareness in preventing the sarcopenia incidence rate among cirrhosis.

Condition being studied The publications will be searched on online databases such as Pubmed, Embase, the Cochrane Library, Web of Science, Science Direct, Medline, CNKI, VPI,Wanfang network. All studies included are observational studies, including cohort studies,cross-sectional study and case-control studies published in English in the last twenty years, whereas reviews, reference books, research protocols, case reports, and letters to the editor, abstract-only articles will be excluded during the study identification.

METHODS

Search strategy The search terms include "Liver Cirrhosis " OR "stage liver disease" OR "chronic liver disease" OR "Liver Cirrhosis" AND "skeletal muscle mass" OR "Sarcopenia" should be used to identify the targeted articles.

Participant or population Adult patients who diagnosed with cirrhosis.

Intervention Number of cases of sarcopenia.

Comparator The number of cases without sarcopenia.

Study designs to be included Observational studies including cohort studies, cross-sectional study and case-control studies.

Eligibility criteria 1. All observational studies, including cross-sectional studies, cohort studies, and case-control studies published in English and chinese in the last twenty years. 2. Studies with observations of Sarcopenia. 3. Observations with complete medical records shown in the article are included.

Information sources Electronic databases such as Pubmed, Embase, the Cochrane Library, Web of Science, CNKI, VPI,Wanfang network, and Medline.

Main outcome(s) It is expected that about 15 articles will be analyzed in the meta-analysis section. The incidence and risk factors of sarcopenia can be evaluated by proportional meta analysis and subgroup analysis respectively.

Additional outcome(s) Not applicable.

Data management The studies with observations of sarcopenia were identified as targeted articles. The number of the study population, cases of sarcopenia and risk factors mentioned in the studies will be recorded.

Quality assessment / Risk of bias analysis The risk of bias assessment will be evaluated using AHRQ and NOS for Prevalence Studies.

Strategy of data synthesis The meta-analysis will be conducted and managed using Stata 14.0.

Subgroup analysis Subgroup analysis was conducted according to sample source, diagnostic criteria, study year, study type and study region Type of surgical techniques and types of risk factors.

Sensitivity analysis The sensitivity analysis will be evaluated by the heterogeneity among the studies with I0 value.

Language restriction All selected articles are written in English and chinese.

Country(ies) involved China.

Keywords Liver cirrhosis; Sarcopenia; Influence factor; Systematic review.

Dissemination plans The article will be submited to high-impact journal such as Chinese Journal of evidence-based Medicine.

Contributions of each author
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