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INPLASY

Clinical outcomes after hepatitis C cure with direct-acting antivirals: A systematic review and meta-analysis

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ADMINISTRATIVE INFORMATION

Support - No funds, grants, or other support was received.

Review Stage at time of this submission - Formal screening of search results against eligibility criteria.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 29 June 2024 and was last updated on 29 June 2024.

INTRODUCTION

Review question / Objective The aim of this meta analysis was to determine the incidence of clinical outcomes (including liver fibrosis progression, decompensated liver cirrhosis, occurrence and recurrence of HCC, liver related death) in HCV patients cured by direct-acting antivirals.

Condition being studied The cure of hepatitis C cannot completely eliminate the progression of liver lesions and the occurrence of related clinical outcomes. This meta-analysis aims at increasing our knowledge of clinical outcomes incidence after the elimination of hepatitis C by DAA, and provided high-level evidence-based medical evidence for the treatment of hepatitis C and follow-up after the treatment of hepatitis C.

METHODS

Participant or population HCV patients who achieved SVR with DAA therapy.
Intervention DAA therapy.

Comparator No comparator.

Study designs to be included Observational studies.

Eligibility criteria 1.As for the outcome of decompensated cirrhosis, only patients without liver cirrhosis or with compensated liver cirrhosis were included; 2.as for the outcome of HCC occurrence, decompensated liver cirrhosis and liver related death, patients with previous HCC history were excluded; 3.Articles were included if they were written in the English or Chinese

language; 4.Studies on adult patients (age ≥18 years) were included.

Information sources PubMed,EMBASE, the Cochrane Library, Web of Science.

Main outcome(s) The incidence of the clinical outcomes (including liver fibrosis progression, decompensated liver cirrhosis, occurrence and recurrence of HCC, liver related death) post sustained viral response in hepatitis C patients.

Quality assessment / Risk of bias analysis We used the Newcastle-Ottawa Quality Assessment scale to assess the study quality of articles.

Strategy of data synthesis We used random effects model with a 95% confidence interval (CI) to obtain a pooled estimate of clinical outcomes incidence. We used the I2 statistic to measure inter-study heterogeneity, i2 ≥50% indicating substantial heterogeneity.

Subgroup analysis We performed subgroup analyses based on study design (prospective versus retrospective), study setting, duration of study follow-up, HBV or HIV co-infection, and prior treatment for liver cancer.

Sensitivity analysis Subgroup and sensitivity analyses were performed to evaluate heterogeneity.

Language restriction English or Chinese.

Country(ies) involved China.

Keywords chronic hepatitis C, direct-acting antiviral agents, meta-analysis; clinical outcomes.

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