

INPLASY PROTOCOL

To cite: Gao et al. Meta-analysis and clinical value of 10 blood biomarkers such as GP73, CHI3L1 and GPC3 in the diagnosis of liver cirrhosis. Inplasy protocol 202340048. doi: 10.37766/inplasy2023.4.0048

Received: 15 April 2023

Published: 15 April 2023

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Support: Enterprise
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**Review Stage at time of this
submission:** Preliminary
searches.

Conflicts of interest:
None declared.

INTRODUCTION

Review question / Objective: The purpose of this study is to explore the specificity and sensitivity of 10 blood biomarkers such as GP73, CHI3L1 and GPC3 in the diagnosis of liver cirrhosis, and to provide strong support for clinical diagnosis. The method chosen in this study is RCT experiment.

Meta-analysis and clinical value of 10 blood biomarkers such as GP73, CHI3L1 and GPC3 in the diagnosis of liver cirrhosis

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Review question / Objective: The purpose of this study is to explore the specificity and sensitivity of 10 blood biomarkers such as GP73, CHI3L1 and GPC3 in the diagnosis of liver cirrhosis, and to provide strong support for clinical diagnosis. The method chosen in this study is RCT experiment.

Eligibility criteria: Liver tissue biopsy (The diagnosis of cirrhosis requires comprehensive consideration of etiology, history, clinical manifestations, complications, treatment process, examination, imaging and histology.)

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 15 April 2023 and was last updated on 15 April 2023 (registration number INPLASY202340048).

Condition being studied: Cirrhosis is a common chronic progressive liver disease in clinic, which is a diffuse liver damage caused by long-term or repeated action of one or more causes. The gold standard for the diagnosis of this disease is liver biopsy, but this method cannot be repeated and causes great pain to patients. The purpose of this study is to improve the accuracy of liver cirrhosis diagnosis and reduce the

secondary injury to patients through the combined diagnosis of blood biomarkers.

METHODS

Participant or population: The diagnosis of liver cirrhosis is based on recognized guidelines, such as histopathology or other appropriate diagnostic criteria; The control group consists of patients with chronic liver diseases such as hepatocellular carcinoma or hepatitis, patients with benign liver diseases such as liver cysts or healthy people.

Intervention: Without.

Comparator: Without.

Study designs to be included: RCT.

Eligibility criteria: Liver tissue biopsy(The diagnosis of cirrhosis requires comprehensive consideration of etiology, history, clinical manifestations, complications, treatment process, examination, imaging and histology.)

Information sources: PubMed, Embase, and Cochranelibraries.

Main outcome(s): Sensitivity, specificity, true positive (TP), false positive (FP), false negative (FN) and true negative (TN)sensitiv and diagnostic accuracy.

Quality assessment / Risk of bias analysis: Cochrane toolCochrane.

Strategy of data synthesis: The stata software was used for meta-analysis. Stata software was used to calculate Spearman's correlation coefficient values to evaluate the threshold effect. $p < 0.05$ was considered as a significant manifestation of threshold effect. At the same time, the Cochran Q test and I-squared test were performed to estimate the existence and severity of heterogeneity. $p < 0.1$, and I squared $> 50\%$ were considered significant manifestations of heterogeneity. The Deeks' funnel plot was used for publication bias analysis. $p < 0.05$ was considered to have potential publication bias.

Subgroup analysis: Healthy people, chronic hepatitis and liver disease, liver cirrhosis and hepatocellular carcinoma.

Sensitivity analysis: Change the inclusion and exclusion criteria or exclude a certain kind of literature before merging the effect quantities.

Country(ies) involved: China.

Keywords: Golgi protein 73, Chitinase-3-Like Protein 1, Hepatic Cirrhosis, Biomarkers, diagnostic value, meta-analysis.

Contributions of each author:

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