

INPLASY PROTOCOL

To cite: Liao et al. Prognostic value of heart-type fatty acid binding protein in heart failure: a systematic review protocol. Inplasy protocol 202230126. doi: 10.37766/inplasy2022.3.0126

Received: 23 March 2022

Published: 23 March 2022

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Review Stage at time of this submission: Preliminary searches.

Conflicts of interest:
None declared.

Prognostic value of heart-type fatty acid binding protein in heart failure: a systematic review protocol

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Review question / Objective: (1) Can heart type fatty acid binding protein effectively predict the prognosis of patients with heart failure? (2) Is high expression of heart type fatty acid binding protein associated with poor clinical outcomes in patients with heart failure?

Condition being studied: Heart-type fatty acid binding protein (H-FABP) mainly exists in cardiomyocytes and is a potential biomarker of myocardial injury. However, the adverse consequences of heart failure have not been fully analyzed. Therefore, the purpose of this study was to comprehensively evaluate the correlation between H-FABP and the prognosis of heart failure through meta-analysis.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 23 March 2022 and was last updated on 23 March 2022 (registration number INPLASY202230126).

INTRODUCTION

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the adverse consequences of heart failure have not been fully analyzed. Therefore, the purpose of this study was to comprehensively evaluate the correlation between H-FABP and the prognosis of heart failure through meta-analysis.

METHODS

Participant or population: Patients with heart failure.

Intervention: H-FABP expression level.

Comparator: H-FABP expression level.

Study designs to be included: Retrospective study; prospective study; RCTs.

Eligibility criteria: 1) Definite diagnosis of heart failure; 2) Characteristics of the study population (average age, number of patients and gender distribution); 3) The end point should be adverse clinical events or death; 4) There is a clear follow-up period. If the reported information lacked detailed information, or the data had already been reported (same institution, repeated period of patient recruitment), the study would be excluded. In addition, reviews, editorials, abstracts, letters, case reports, expert opinions were eliminated for meta-analysis.

Information sources: Pubmed, Web of Science, Scopus, Embase, Cochrane Library.

Main outcome(s): Adverse clinical events.

Additional outcome(s): Overall mortality.

Quality assessment / Risk of bias analysis: The Newcastle–Ottawa Scale (NOS) was employed to assess the quality of the methodology used in the included studies.

Strategy of data synthesis: The odds ratio (OR) estimates for each publication were determined by a fixed-effects (Mantel-Haenszel) model. Alternatively, a random-effect (DerSimonian and Laird) model was

applied. The significance of combined ORs was measured using the z-test.

Subgroup analysis: When heterogeneity is detected, subgroup analysis will be used.

Sensitivity analysis: A sensitivity analysis will be performed to ascertain the results of the meta-analysis by excluding each of the individual studies.

Country(ies) involved: China.

Keywords: heart failure; Heart-type fatty acid binding protein; Adverse clinical outcome.

Contributions of each author:

Author 1 - Xiaoqian Liao - Draft manuscript, retrieval.

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Author 2 - Xingyu Fan - Extract data.

Author 3 - Ziyi Wang - Extract data.

Author 4 - Shumin Huang - Data audit.

Author 5 - Zhixi Hu - Read, provide feedback and approve the final manuscript.