

INPLASY PROTOCOL

Accessory hepatic vein recanalization for Budd-Chiari syndrome: a meta-analysis

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Conflicts of interest:
None declared.

Review question / Objective: Budd-Chiari syndrome (BCS) is a rare clinical condition caused by an obstruction in the outflow of the hepatic vein (HV) and/or the inferior vena cava (IVC). The majority of BCS patients are presently treated with percutaneous recanalization to relieve liver congestion. Accessory HV (AHV) dilation is an important compensatory mechanism in BCS patients and AHV recanalization is also an effect method for BCS patients. The aim of this meta-analysis is to assess the clinical effectiveness following AHV recanalization for BCS patients.

Condition being studied: Budd-Chiari syndrome (BCS) is a rare clinical condition caused by an obstruction in the outflow of the hepatic vein (HV) and/or the inferior vena cava (IVC). The majority of BCS patients are presently treated with percutaneous recanalization to relieve liver congestion. Accessory HV (AHV) dilation is an important compensatory mechanism in BCS patients and AHV recanalization is also an effect method for BCS patients.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 15 November 2022 and was last updated on 15 November 2022 (registration number INPLASY2022110071).

INTRODUCTION

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METHODS

Search strategy: (((Budd Chiari syndrome) OR (BCS)) AND ((accessory hepatic vein) OR (AHV))) AND (recanalization).

Participant or population: Patients with Budd-Chiari syndrome.

Intervention: Accessory hepatic vein recanalization.

Comparator: Hepatic vein recanalization.

Study designs to be included: Studies contained accessory hepatic vein recanalization for Budd-Chiari syndrome.

Eligibility criteria: (a) Studies contained accessory hepatic vein recanalization for Budd-Chiari syndrome; (b) Studies should contain instant and long-term outcomes.

Information sources: PubMed, Embase, Wanfang.

Main outcome(s): Accessory hepatic vein re-stenosis rate.

Additional outcome(s): Clinical success rate, long-term patency and survival.

Quality assessment / Risk of bias analysis: The Newcastle-Ottawa scale was used to evaluate observational study quality. Studies were assigned points according to selection (4 points), comparability (2 points), and outcome (3 points) criteria,

with studies exhibiting a NOS score ≥ 7 being considered of high quality.

Strategy of data synthesis: Random-effects models were used for all pooled analyses owing to the presumption of heterogeneity, with weighting being performed in accordance with the inverse variance of these studies. Heterogeneity was assessed with the Q test and the I² statistic, with I² > 50% corresponding to high levels of heterogeneity. Sources of heterogeneity were investigated with sensitivity analyses. Egger's test was used to assess publication bias, with $p < 0.05$ as the threshold of significance.

Subgroup analysis: Not applicable.

Sensitivity analysis: Yes.

Country(ies) involved: China.

Keywords: Accessory hepatic vein; Budd-Chiari syndrome.

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