INPLASY

Comparative Efficacy and Safety of Different Reperfusion Therapies in Acute Ischemic Stroke Patients: A Network Meta-analysis

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ADMINISTRATIVE INFORMATION

Support - Department of Neurology, Chongqing University Three Gorges Hospital.

Review Stage at time of this submission - Preliminary searches.

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 01 October 2023 and was last updated on 01 October 2023.

INTRODUCTION

Review question / Objective Participants: Patients diagnosed with acute ischemic stroke. Interventions and Comparisons: Intravenous thrombolysis, intra-arterial thrombolysis, mechanical thrombectomy, and combined approaches. Outcomes: The primary efficacy outcome measure was the proportion of patients with a score of 0 or 2 on the modified Rankin Scale at 90 days (functional independence). The primary safety outcome measure was the proportion of patients with symptomatic intracranial hemorrhage within 72 hours. The second outcome include the proprtion of patients with a score of 0 or 1 on the modified Rankin Scale at 90 days (disabilityfree). mortality at 90 days. Study Design: Randomized Controlled Trials.

Condition being studied Patients diagnosed with acute ischemic stroke.

METHODS

Participant or population Patients diagnosed with acute ischemic stroke.

Intervention Endovascular thrombectomy after intravenous thrombolysis,intra-arterial alteplase, intravenous thrombolysis, intra-arterial alteplase after endovascular thrombectomy, thrombectomy.

Comparator Ecndovascular thrombectomy after intravenous thrombolysis,intra-arterial alteplase, intravenous thrombolysis, intra-arterial alteplase after endovascular thrombectomy, thrombectomy.

Study designs to be included Randomized controlled study.

Eligibility criteria Patients : patients with acute ischemic strokeIntervention and comparision: endovascular thrombectomy after intravenous

thrombolysis,intra-arterial alteplase, intravenous thrombolysis, intra-arterial alteplase after endovascular thrombectomy, thrombectomy outcomes: The primary efficacy outcome measure was the proportion of patients with a score of 0 or 2 on the modified Rankin Scale at 90 days (functional independence). The primary safety outcome measure was the proportion of patients with symptomatic intracranial hemorrhage within 72 hours. The second outcome include the proprtion of patients with a score of 0 or 1 on the modified Rankin Scale at 90 days (disabilityfree). mortality at 90 days.S: RCT: randomized controlled study.

Information sources We thoroughly searched the Embase, PubMed, Web of Science, and Cochrane Library databases, and we also reviewed relevant meta-analyses. We restricted our search to papers published in English.

Main outcome(s) Outcomes: The primary efficacy outcome measure was the proportion of patients with a score of 0 or 2 on the modified Rankin Scale at 90 days (functional independence). The primary safety outcome measure was the proportion of patients with symptomatic intracranial hemorrhage within 72 hours. The second outcome include the proprtion of patients with a score of 0 or 1 on the modified Rankin Scale at 90 days (disabilityfree). mortality at 90 days. Study Design: Randomized Controlled Trials.

Quality assessment / Risk of bias analysis We assessed the studies' risk of bias in accordance with the Cochrane Handbook for Systematic Reviews of Interventions.

Strategy of data synthesis We performed all NMAs using JAGS packages in R version 4.2.0, evaluated under a Bayesian framework with Markov chain Monte Carlo simulation. The binomial likelihood was used for dichotomous outcomes.

Subgroup analysis No.

Sensitivity analysis We introduced node-splitting methods for checking the consistency of direct and indirect evidence. The model fit was assessed by comparing the posterior total residual deviance with the number of unconstrained data points. The selection between models was based on the deviance information criteria (DIC)no.

Country(ies) involved China.

Contributions of each author
Author 1 - Wenkui Li - drafted the manuscript.
Author 2 - Chuyue Wu.
Author 3 - Lina Zhang.
Author 4 - Li Li.
Author 5 - Rong Deng.
Author 6 - Qingyuan Wu.