INPLASY PROTOCOL

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None declared.

Efficacy and safety of intravenous antithrombotic drugs in acute ischemic stroke: a systematic review and meta-analysis

Zou, H[1]; Wang, Q[2]; Gu, YQ[3].

Review question / Objective: **Which has better clinical efficacy: Acute ischemic stroke were treated intravenous thrombolysis or intravascular thrombolysis, with or without Intravenous antithrombotic drugs?**
Condition being studied: **The latest guidelines set IIb as the recommended grade for intravenous antithrombotic agents (e.g., tirofiban, etifibatide, agattriban) in the acute phase of ischemic stroke. A large multicenter, double-blind randomized controlled trial has recently been published to further inform patients of the best treatment options.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 22 February 2023 and was last updated on 22 February 2023 (registration number INPLASY202320103).

INTRODUCTION

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METHODS

Participant or population: Acute ischemic stroke patients undergoing intravenous thrombolysis or intravascular thrombectomy.

Intervention: Intravenous antithrombotic medication(e.g. Tirofiban, etifibatide, agattriban).

Comparator: Intravenous antithrombotic drugs combined with intravenous thrombolysis or intravascular thrombectomy in patients with acute ischemic stroke.

Study designs to be included: Randomized controlled trial or prospective cohort study.

Eligibility criteria: The inclusion criteria were as follows: (1) Patients with acute ischemic stroke who received intravenous thrombolysis or intravascular thrombolysis; (2) The intervention group received intravenous antithrombotic drugs in the acute phase; (3) The control group was placebo or blank control; (4) Report safety and/or efficacy outcome measures of interest; (5) Randomized controlled trials or prospective cohort studies; (6) The duration of follow-up was greater than or equal to 3 monthsThe exclusion criteria were as follows: ① duplicated publications; ② systematic reviews and/or meta-analysis, expert commentaries or review articles, and case reports; ③Incomplete or wrong data.

Information sources: We will search 5 different databases (MEDLINE, PubMed, Embase, web of science , and the Cochrane Library) after 2011 for English clinical literature.

Main outcome(s): Symptomatic intracranial hemorrhage(SICH) the modified rankin Scale (MRS) at 90 days.

Additional outcome(s): Intracranial hemorrhage; Mortality at 3 months; Recanalization rate.

Quality assessment / Risk of bias analysis: The revised Oxford Quality Scoring System (Jadad Scale) and Newcastle-Ottawa Scale (NOS) were used to evaluate the quality of randomized controlled trials and prospective cohort studies. Publication bias was assessed by funnel plot and legger's test.

Strategy of data synthesis: The risk ratio (RR) of each outcome was calculated using DerSimonian & Laird random effect model and Inverse-Variance Fixed effect model, and the M-H method was used to calculate 95% (CI).

Subgroup analysis: According to the treatment method, they were divided into intravenous thrombolysis group and intravascular thrombolysis group.

Sensitivity analysis: If heterogeneity exists, continue with sensitivity analysis after excluding heterogeneity.

Country(ies) involved: China.

Keywords: Ischemic stroke, intravenous thrombolysis, intravascular thrombectomy, antithrombotic agents.

Contributions of each author:
Author 1 - Hang Zou - searching the primary literature, analyzed the data, and wrote the article.
Author 2 - Qiang Wang.
Author 3 - YouQuan Gu.