INPLASY PROTOCOL

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Review Stage at time of this submission: Data analysis.

Conflicts of interest:
None declared.

Safety and effectiveness of antithrombotic therapy after intracerebral hemorrhage: A meta-analysis

Bao, QJ[1]; Guo, Y[2]; Yang, MF[3].

Review question / Objective: Types of participants was defined as adult(18 years) patients with ICH diagnosed by CT or MRI; Types of interventions was prophylactic use of antithrombotic (antiplatelet or anticoagulant) therapy; comparator: no antithrombotic therapy was given; Outcomes of interest were composite outcome of intracerebral rebleeding. DVT or pulmonary embolism (PE) or death was the secondary outcome.study design:A meta-analysis will be conducted with methods of Cochrane Handbook.

Condition being studied: The advantages of antithrombotic (antiplatelet or anticoagulant) therapy added to the treatment regimens for patients after intracerebral hemorrhage(ICH) is limited.Therefore, a high-quality meta-analysis needs to be carried out.

INTRODUCTION

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Rationale: The advantages of antithrombotic (antiplatelet or anticoagulant) therapy added to the treatment regimens for patients after intracerebral hemorrhage(ICH) is limited. Systematic reviews and meta-analyses were conducted to provide precise estimates of the association between antithrombotic treatment and safety and effectiveness in patients after ICH.

Condition being studied: The advantages of antithrombotic (antiplatelet or anticoagulant) therapy added to the treatment regimens for patients after intracerebral hemorrhage(ICH) is limited. Therefore, a high-quality meta-analysis needs to be carried out.

METHODS

Search strategy: We collected relevant data from major databases (such as Pubmed, Cochrone and Embase) for meta analysis. the last search performed on January 1, 2021. The search query for PubMed was ([intracranial hemorrhages]) OR([brain or cerebral or intracerebral] AND [haemorrhag* or hemorrhag* or bleed*]) AND ([anticoagulants]) OR ([platelet aggregation inhibitors]) OR ([antithromb* or anticoagul* or antiplatelet*]). Details of search strategy were summarized in appendix Table 1. Three articles met the requirements. Individual patient data were pooled from three trials that compared initiation and avoidance of antithrombotic drugs, for preventing thromboembolism after ICH. Because all data we collected and synthesized were from previously published studies, institutional review board deemed this study exempted from approval and informed consent.

Participant or population: Types of participants was defined as adult(18 years) patients with ICH diagnosed by CT or MRI.

Intervention: Types of interventions was prophylactic use of antithrombotic (antiplatelet or anticoagulant) therapy.

Comparator: no antithrombotic therapy was given.

Study designs to be included: A meta-analysis will be conducted with methods of Cochrane Handbook.

Eligibility criteria: Eligibility criteria included the following: (1) Randomized controlled trials that evaluated antithrombotic (antiplatelet or anticoagulant) therapy after ICH. (2) Types of participants was defined as adult(18 years) patients with ICH diagnosed by CT or MRI; (3) Types of interventions was prophylactic use of antithrombotic (antiplatelet or anticoagulant) therapy. (4) Outcomes of interest were composite outcome of intracerebral rebleeding. DVT or pulmonary embolism (PE) or death was the secondary outcome.

Information sources: We collected relevant data from major databases (such as Pubmed, Cochrane and Embase) for meta analysis.

Main outcome(s): Outcomes of interest were composite outcome of intracerebral rebleeding.

Additional outcome(s): DVT or pulmonary embolism (PE) or death was the secondary outcome.

Data management: We use NoteExpress to manage papers.

Quality assessment / Risk of bias analysis: The quality of each study was evaluated by Q-J.B and Y.G independently using the criteria outlined in the Cochrane Handbook for Systematic Reviews of Interventions (Higgins 2011). Two reviewers (Q-J.B and Y.G) used appellate methods to assess the risk of bias for each outcome, respectively, We judged the quality of research by the following criteria: selection bias (random sequence generation and allocation concealment), performance bias, detection bias, attrition bias, report bias, other potential bias. Disagreements regarding quality assessment scores for each

individual study were handled by discussion with a third reviewer (M.-F.Y.).

Strategy of data synthesis: We used Review Manager 5.3 of the Cochrane Collaboration for data statistical analysis. Heterogeneity was assessed with the Q test and I2-statistic. We defined I2 >50% and P < 0.1 as significant heterogeneity. Classification estimates of impact on the risk ratio (RR) and the fixed effects model were used to calculate 95% CI, which demonstrated no heterogeneity. Otherwise, a random-effects model was used. We used to funnel plots and forest plots to assess publication bias.

Subgroup analysis: None.

Sensitivity analysis: None.

Language: There will be no language limits.

Country(ies) involved: China.

Keywords: Intracranial hemorrhages; Antithrombotic; Safety; Effectiveness; Meta-analysis.

Dissemination plans: We are planning to publish this systematic review and network meta-analysis in a peer-reviewed scientific journal and disseminate it widely through the internet.

Contributions of each author:
Author 1 - Bao Qiangji - The author drafted the manuscript.
Email: 929383217@qq.com
Author 2 - Guo Yu - The author provided statistical expertise.
Author 3 - Yang Mingfei.