INPLASY PROTOCOL

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Safety of glycoprotein IIb-IIIa inhibitors used in acute ischemic stroke treatment: A systematic review and meta-analysis

Xiaolin, Z[1]; Genmao, C[2].

Review question / Objective: **Is glycoprotein receptor inhibitors associated with symtomatic intracranial hemorrhage in stroke treatment?**
Condition being studied: **Patients with acute ischemic stroke.**
Information sources: **Sources: MEDLINE; Web of Science; Embase. Search dates: from Jan.01 1990 to Dec.31 2019 Language is restricted to English. Searches will be re-run prior to the final analysis. Unpublished studies will not be sought.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 23 April 2020 and was last updated on 23 April 2020 (registration number INPLASY202040150).

INTRODUCTION

Review question / Objective: **Is glycoprotein receptor inhibitors associated with symtomatic intracranial hemorrhage in stroke treatment?**

Condition being studied: **Patients with acute ischemic stroke.**

METHODS

Search strategy: **We searched literatures relevant to Tirofiban, Eptifibatide, Abciximab, stroke, and intracranial hemorrhage on pubmed/medline, web of science, embase.**

Participant or population: **Patients with acute ischemic stroke.**

Intervention: Patients in experiment group were given abciximab, eptifibatide or tirofiban.

Comparator: Patients in control group were given placebo (saline) or aspirin, or it's open control.

Study designs to be included: Randomised control trials and clinical controled trials will be included.

Eligibility criteria: A trial or study would be included if 1) focusing on patients suffered AIS; 2) patients in experiment group were given abciximab, eptifibatide or tirofiban; 3) patients in control group were given placebo (saline) or aspirin, or it's open control. 4) it is a randomized control trial, a prospective non-randomized study or a retrospective control study; 5) additional therapies, as antiplatelet agents, nonsteroidal antiinflammation drugs, mechanical thrombectomy were allowed but in all arms; 6) intracranial hemorrhage, symptomatic intracranial hemorrhage (SICH) or death were reported within 90 days; 7) administration of medication as tirofiban, eptifibatide and abciximab was described with details like dose, infusion speed, etcetera.

Information sources: Sources: MEDLINE; Web of Science; Embase. Search dates: from Jan.01 1990 to Dec.31 2019 Language is restricted to English. Searches will be re-run prior to the final analysis. Unpublished studies will not be sought.

Main outcome(s): Intracranical hemorrhage; Symptomatic intracranial hemorrhage; mortality with in 90 days.

Quality assessment / Risk of bias analysis: We use the the Cochrane risk of bias tool to assess methods of randomisation, treatment allocation, blinding, incomplete outcome data, selective reporting and other bias at study level. Two reviewer will be involved in the quality assessment. If consensus cannot be reached, a third reviewer will make the final decision.

Strategy of data synthesis: The minimun nummber of studies is 5. The minium number of patients in each group is 10. . Risk ratios for any ICH , symptomatic ICH and mortality within 90 days will be synthesised.

Subgroup analysis: Different agents and dose contribute to the heterogeneity. And companied interventional therapy or thrombolysis therapy may bring additional risk for ICH or death. Especially for tirofiban, its dose varied among studies. Types of study: RCT vs CCT. Types of glycoprotein receptor inhibitors.abciximab vs eptifibatide vs tirofiban. Whether companied thrombolysis therapy: yes vs no Whether companied interventional therapy: yes vs no Tirofiban dosage: total dose =10mg Tests of interaction between subgroup will be conducted.

Sensibility analysis: Sensibility analysis will be performed in standard procedure.

Language: No language limits will be imposed on the search.

Country(ies) involved: China.

Keywords: Glycoprotein IIb-IIIa inhibitors; ischemic stroke; intracranial hemorrhage; dose.

Contributions of each author:
Author 1 - Author 1 screened the records, extracted the data, drafted the manuscript.