INPLASY PROTOCOL

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Review Stage at time of this submission: **Formal screening of search results against eligibility criteria.**

Conflicts of interest:
None declared.

The Protocol of The Challenges in Neurosurgery during the COVID-19 pandemic: a systematic review

Teng, HY[1]; Wang, ZL[2]; Yang, XY[3]; Wu, XY[4]; Chen, ZQ[5]; Wang, Z[6]; Chen, G[7].

Review question / Objective: **Participants: any patient with neurosurgical diseases. Interventions: All patients who underwent neurosurgery during the COVID-19 pandemic were included. Comparison: Patients who underwent neurosurgery before the COVID-19 pandemic. Outcomes: including mortality rate, length of stay, modified Rankin Score (mRS), delay in care, Glasgow outcome scale (GOS), major complications. Study design: randomized controlled trials (RCT), retrospective or prospective cohort studies case-control studies (more than 10 patients), and cross-sectional studies were included.**
Condition being studied: **The coronavirus disease-2019 (COVID-19) pandemic has created a global crisis unique to the health care system around the world. It also had a profound impact on the management of neurosurgical patients. In our research, we intended to investigate the effect of COVID-19 pandemic on neurosurgery, particular including vascular and oncological neurosurgery.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 06 February 2023 and was last updated on 06 February 2023 (registration number INPLASY202320025).

INTRODUCTION

Review question / Objective: **Participants: any patient with neurosurgical diseases. Interventions: All patients who underwent neurosurgery during the COVID-19 pandemic were included. Comparison: Patients who underwent neurosurgery**

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METHODS

Participant or population: Patients who underwent neurosurgery during or before COVID-19 pandemic.

Intervention: Underwent neurosurgery during the COVID-19 pandemic.

Comparator: Underwent neurosurgery before the COVID-19 pandemic.

Study designs to be included: Randomized controlled trials (RCT), retrospective or prospective cohort studies case-control studies (more than 10 patients), and cross-sectional studies were included.

Eligibility criteria: (1) Review, letter, commentary, or case reports without a control group. (2) Patients did not receive neurosurgical treatment, for instance, conservative treatment. (3) Articles were not published in English.

Information sources: MEDLINE, EMBASE, the Cochrane Central Register of Controlled Trials (CENTRAL).

Main outcome(s): Mortality, length of stay, mRS score, delay in care, Glasgow Outcome Scale and Major Complications.

Quality assessment / Risk of bias analysis: The Methodological Index for Non-randomized Studies (MINORS) checklist (12956787) were used to assess the risk of bias of the including studies.

Strategy of data synthesis: Since our study is a systematic review, no data will be analysed.

Subgroup analysis: None.

Sensitivity analysis: None.

Language restriction: English.

Country(ies) involved: China.

Keywords: COVID-19; Neurosurgery; Cerebrovascular disease; Neuro-oncology; Systematic review.

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