INPLASY PROTOCOL

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The efficacy of therapies for post-stroke depression in aging: an umbrella review

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Review question / Objective: Post-stroke depression (PSD) is a common complication after stroke. PSD is associated with emotional disorders and psychological dependence, which are potential risk factors for stroke recurrence and suicidality. This study aimed to perform an umbrella review of therapies for PSD through a comprehensive literature search.

Eligibility criteria: (1) published in peer-reviewed journals until May 2022; (2) English-language literature; (3) published metaanalyses or systematic reviews; (4) participants in the general population.(1) published in peer-reviewed journals; (2) Englishlanguage literature; (3) reported risk prediction of Ischemic stroke or mortality conferred by CRP levels (4) participants in the general population.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 11 August 2022 and was last updated on 11 August 2022 (registration number INPLASY202280039).

INTRODUCTION

Review question / Objective: Post-stroke depression (PSD) is a common complication after stroke. PSD is associated with emotional disorders and psychological dependence, which are potential risk factors for stroke recurrence and suicidality. This study aimed to perform an umbrella review of therapies for PSD through a comprehensive literature search.

Condition being studied: This study aims to provide an umbrella review of PSD therapies through a comprehensive literature search and to reach a clear conclusion by integrating the available meta-analyses and systematic reviews to identify an efficacious treatment for PSD patients that are commercially available.

METHODS

Participant or population: The search terms were: (post-stroke depression) and (systematic review or meta-analysis). Metaanalyzed and systematic reviews of treatment methods for PSD patients were included in this study.

Intervention: Therapies for PSD was the main intervention.

Comparator: The controls that received antidepressants such as other SSRIs, TCMs, TCAs, and placebo.

Study designs to be included: Systematic review or meta-analysisRandomized controlled trials (RCTs) will be included.

Eligibility criteria: (1) published in peerreviewed journals until May 2022; (2) English-language literature; (3) published meta-analyses or systematic reviews; (4) participants in the general population.(1) published in peer-reviewed journals; (2) English-language literature; (3) reported risk prediction of Ischemic stroke or mortality conferred by CRP levels (4) participants in the general population.

Information sources: Two independent authors conducted a preliminary screening in the PubMed and Web of Science to search for articles that contained search terms most related to our main construct of interest.

Main outcome(s): HAMD was used to provide an assessment indicator of depression and evaluate the effectiveness of the antidepressants for PSD. The NIHSS and ADL scales were performed to evaluate the neurologic function after stroke. The incidence of adverse events was assessed, and the Risk Ratio/ odds ratio was calculated.

Quality assessment / Risk of bias analysis: The meta-analyses and systematic reviews were evaluated using the AMSTAR tool (Shea et al., 2007). Studies were graded as low, medium, and high quality with an AMSTAR score of 0-4, 5-8, and 9-11, respectively.

Strategy of data synthesis: The incidence of adverse events was assessed, and the Risk Ratio/ odds ratio was calculated. The selection of assessments was extracted on study size, sample size, standardized mean difference (SMD) /mean difference (MD) or relative ratio (RR) /odds ratio (OR), and heterogeneity (I2). The percentages of 0– 25%, 26–50%, and 51–75% were classified as mild, moderate, and significant. If I2 > 50%, a random-effects model was used for the analysis, or the data was analyzed on the fixed-effects model.

Subgroup analysis: This study aimed to perform an umbrella review of therapies for PSD through a comprehensive literature search.

Sensitivity analysis: The percentages of 0– 25%, 26–50%, and 51–75% were classified as mild, moderate, and significant. If I2 >50%, a random-effects model was used for the analysis, or the data was analyzed on the fixed-effects model.

Country(ies) involved: China.

Keywords: Post-stroke depression, metaanalysis, systematic review, umbrella review.

Contributions of each author:

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