INPLASY

Association of psychiatric disorders with the risk of stroke: A meta-analysis of cohort studies

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INTRODUCTION

Review question / Objective The strength regarding the association of psychiatric disorders with the risk of stroke.

Condition being studied Psychiatric disorders may be associated with an increased risk of stroke, however, the existence of differences in this association among different populations remains controversial.

METHODS

Search strategy "bipolar disorder" OR "schizophrenia" OR "depression" AND ("stroke risk" OR "risk of stroke").

Participant or population all of individuals free of stroke at baseline.

Intervention Psychiatric disorders, including bipolar disorder, schizophrenia, and depression.

Comparator Individuals without psychiatric disorders.

Study designs to be included All of study had to have cohort design.

Eligibility criteria Studies meeting the following criteria were included: (1) Participants: all of individuals free of stroke at baseline; (2) Exposure: psychiatric disorders, including bipolar disorder, schizophrenia, and depression; (3) Control: individuals without psychiatric disorders; (4) Outcome: effect estimate (risk ratio [RR], hazard ratio [HR], or odds ratio [OR]) and 95% confidence interval (CI) for comparisons of psychiatric

disorders and control; and (5) Study design: all of study had to have cohort design.

Information sources PubMed, EmBase, and Cochrane Library electronic databases.

Main outcome(s) Effect estimate (risk ratio [RR], hazard ratio [HR], or odds ratio [OR]) and 95% confidence interval (CI) for comparisons of psychiatric disorders and control.

Quality assessment / Risk of bias analysis The two authors used the Newcastle-Ottawa Scale (NOS) for methodological quality assessment, which has been partially validated for quality assessment of observational studies in meta-analyses.

Strategy of data synthesis Considering that this study's analysis was based on a cohort design, we used RR as the pooled effect estimate, and all analyses were conducted using a random-effects model to account for potential heterogeneity across studies.

Subgroup analysis Subgroup analyses were also performed according to study design, geographical region, mean age, sex, stroke type, reported outcomes, follow-up duration, and adjusted levels, and the differences between subgroups were compared using the interaction t test, which assuming the data met normal distribution.

Sensitivity analysis We also systematically excluded each study from the meta-analysis and conducted sensitivity analysis to explore the stability of the pooled conclusions and investigate potential sources of heterogeneity.

Country(ies) involved China.

Keywords depression; schizophrenia; bipolar disorder; stroke; systematic review; meta-analysis.

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