

INPLASY PROTOCOL

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Conflicts of interest:
None declared.

INTRODUCTION

Review question / Objective: To investigate the prevalence of cryptococcal meningitis (CM) in AIDS patients in China as a whole as well as in different regions of China through a meta-analysis.

Rationale: This study conducted a meta-analysis of the existing literature on the prevalence of AIDS/CM in China, aiming to understand the prevalence of AIDS/CM in

Prevalence of cryptococcal meningitis in Chinese AIDS patients: results of a meta-analysis

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Condition being studied: The study subjects were Chinese AIDS patients, and patients with cryptococcal meningitis were found to be *Cryptococcus* by microscopy of cerebrospinal fluid ink staining, or positive blood and cerebrospinal fluid *Cryptococcus* culture, or positive blood and cerebrospinal fluid *Cryptococcus* antibody test.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 11 May 2023 and was last updated on 11 May 2023 (registration number INPLASY202350041).

China and the burden of disease in different regions, and to provide scientific basis for the prevention and treatment of AIDS opportunistic infections.

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cerebrospinal fluid Cryptococcus antibody test.

METHODS

Search strategy: Using the combination of medical subject words (MeSH) and free words, we searched in Pubmed, Web of Science, China National Knowledge Infrastructure and Wanfang Data Knowledge Service Platform to obtain AIDS/CM research literature published in Chinese and English. Search terms include "Meningitis, Cryptococcal", "Cryptococcal Meningitis", "Cryptococcal Meningitis", "Cryptococcal disease", and "human immunodeficiency virus", "Acquired Immune Deficiency Syndrome", "HIV", "AIDS", "Human immunodeficiency virus", "Acquired immunodeficiency syndrome".

Participant or population: The study participants were Chinese AIDS patients.

Intervention: None.

Comparator: Not applicable.

Study designs to be included: Observational studies.

Eligibility criteria: Inclusion Criteria: (1) The study subjects were Chinese AIDS patients; (2) the type of literature is observational research; (3) study data reporting the prevalence of AIDS/CM or having sufficient data to calculate the prevalence of AIDS/CM; (4) Have a clear investigation time and research method; (5) The diagnosis of CM is clear, that is, Cryptococcus is found by microscopic examination of cerebrospinal fluid ink staining, or positive blood and cerebrospinal fluid Cryptococcus culture, or positive blood and cerebrospinal fluid Cryptococcus antibody test. Exclusion criteria: (1) review or repeat studies; (2) The sample size is less than 50; (3) The CM diagnostic method is not clearly stated.

Information sources: Pubmed, Web of Science, China National Knowledge Infrastructure and Wanfang Data Knowledge Service Platform.

Main outcome(s): Prevalence of AIDS/CM in China.

Additional outcome(s): Prevalence of AIDS/CM in different geographical locations, survey regions, and HIV treatment periods in China.

Data management: EndNote X9.

Quality assessment / Risk of bias analysis: A meta-analysis of observational studies was carried out using MOOSE statements, including six parts: background, search strategy, methods, results, discussion and conclusions. The STROBE statement based on observational studies assessed the quality of the included studies, using 22 entries to assess the quality of the cross-sectional studies. Heterogeneity between studies was assessed using Cochran's Q test and I². Egger's test was used to analyse publication bias.

Strategy of data synthesis: Stata 17.0 software was used to integrate data from the included studies and calculate a pooled prevalence and 95% CI. Heterogeneity between studies was assessed using Cochran's Q test and I², and if there was heterogeneity in studies (I²>50%, P<0.1), a random-effects model was used.

Subgroup analysis: Subgroup analyses were performed based on different geographical locations, survey regions, provinces, antiretroviral therapy era, and literature study quality.

Sensitivity analysis: Sensitivity analysis was performed using STATA software to reflect the sensitivity of one of the articles by removing the change in effect size.

Country(ies) involved: China.

Keywords: AIDS ; Cryptococcus meningitis ; Prevalence ; Meta-analysis

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