INPLASY

Risk Factors for Poor Prognosis in ANCA-associated Vasculitis with Interstitial Lung Disease: A Systematic Review and Meta-Analysis

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ADMINISTRATIVE INFORMATION

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Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 2 October 2024 and was last updated on 2 October 2024.

INTRODUCTION

Review question / Objective This study aimed to investigate the risk factors associated with mortality in patients with Antineutrophil cytoplasm antibody-associated vasculitis with interstitial lung disease(AAV-ILD).

Condition being studied In Web of Science, PubMed, Embase and Scopus databases, a comprehensive search was performed for English studies on AAV and ILD published from inception date until May 17, 2024.

METHODS

Search strategy A comprehensive search was carried out for English studies published from inception date until May 17, 2024 in Web of Science, PubMed, Embase and Scopus databases. The search terms were as follows: "Interstitial Lung Disease", "Anti-Neutrophil Cytoplasmic Antibody-Associated Vasculitis", "microscopic polyangiitis", "granulomatosis with polyangiitis", "Churg-Strauss Syndrome", "Eosinophilic granulomatous polyvasculitis", "ILD", "MPA", "GPA", "EGPA", etc.

Participant or population 654 antineutrophil cytoplasm antibody-associated vasculitis with interstitial lung disease(AAV-ILD) patients.

Intervention NonSurvival AAV-ILD patients group.

Comparator Survival AAV-ILD patients group.

Study designs to be included Retrospective.

Eligibility criteria The criteria for inclusion were as follows: (1) prospective or retrospective studies; (2) the diagnosis of AAV was based on the 2012 Chapel Hill Consensus Conference criteria [8]; (3) the diagnosis of ILD was on the basis of existing clinical guidelines [9, 10], medical history,

examination data and multidisciplinary discussion when necessary; (4) mortality risk factors in AAV-ILD were identified by Cox proportional hazards regression model; (5) English literatures.

The criteria for exclusion were as follows: (1) duplicate literatures; (2) case report, conference abstract, review or meta-analysis, animal or cell study, comment or letter, etc.; (3) studies unrelated to AAV-ILD; (4) hazard ratios (HR) and 95% confidence intervals (CI) could not be obtained; (5) inability to extract data; (6) non-English literatures.

Information sources A comprehensive search was carried out for English studies published from inception date until May 17, 2024 in Web of Science, PubMed, Embase and Scopus databases.

Main outcome(s) Risk factors of death.

Quality assessment / Risk of bias analysis The Newcastle-Ottawa Scale (NOS) was applied for the quality of the included literatures.

Strategy of data synthesis The Cochran's Q statistic and inconsistency value (I2) was used for heterogeneity analysis. If P< 0.05 or I2≥50%, indicating significant heterogeneity, a random effects model and DerSimonian-Laird (DL) method were employed for pooled analysis; otherwise, a fixed effects model and inverse variance (IV) method were used.

Subgroup analysis Subgroup analyses were executed for different risk factors.

Sensitivity analysis Excluding one category of study at a time method was utilized for sensitivity analysis.

Country(ies) involved China.

Keywords antineutrophil cytoplasm antibody-associated vasculitis; interstitial lung disease; poor prognosis;mortality.

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