INPLASY PROTOCOL

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Support: Private ownership.

Review Stage at time of this submission: Data analysis - Completed but not published.

Conflicts of interest: None declared.

Prognostic and Clinicopathologic Significance of Neutrophil-to-lymphocyte Ratio in Esophageal Cancer: An Update Meta-analysis

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Review question / Objective: Assess the prognostic and clinicopathologic significance of Neutrophil-to-lymphocyte Ratio (NLR) in patients with esophageal cancer.

Condition being studied: Prognosis and clinicopathologic characteristics of esophageal cancer.

Eligibility criteria: 1) esophageal cancer was diagnosed with pathology; 2) NLR was measured before treatment and from serum and with a clear cutoff value; 3) the association between NLR and prognosis (OS, CSS, PFS, and DFS) or clinicopathologic parameters were evaluated.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 28 October 2021 and was last updated on 28 October 2021 (registration number INPLASY2021100111).

INTRODUCTION

Review question / Objective: Assess the prognostic and clinicopathologic significance of Neutrophil-to-lymphocyte Ratio (NLR) in patients with esophageal cancer.

Condition being studied: Prognosis and clinicopathologic characteristics of esophageal cancer.

METHODS

Participant or population: Patients who were diagnosed with esophageal cancer.

Intervention: None.

Comparator: None.

Study designs to be included: a Meta-Analysis.

Eligibility criteria: 1) esophageal cancer was diagnosed with pathology; 2) NLR was measured before treatment and from serum and with a clear cutoff value; 3) the association between NLR and prognosis (OS, CSS, PFS, and DFS) or clinicopathologic parameters were evaluated.

Information sources: A systematic literature search was performed using PubMed, Embase, and Web of Science up to January 12, 2020.

Main outcome(s): Overall survival of esophageal cancer.

Quality assessment / Risk of bias analysis: Publication bias was assessed using Begg's funnel plot and Egger's linear regression test.

Strategy of data synthesis: HRs and 95% CIs were used to analyze the relationship between NLR and prognosis (OS, CSS, PFS, and DFS); if univariate and multivariate analyses were both reported in the same study, multivariate-adjusted HRs and 95% confidence intervals were used in preference. ORs and 95% CIs were used to evaluate the relationship between NLR and clinicopathologic factors.

Subgroup analysis: Subgroup analysis was used to explore possible heterogeneity.

Sensitivity analysis: Robustness of the study was tested by sensitivity analysis

Country(ies) involved: China.

Keywords: esophageal cancer; inflammation; meta-analysis; neutrophil-to-lymphocyteratio.

Contributions of each author:
Author 1 - Binfeng Li - conceived the study, and performed the literature search and collected the data.
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Author 2 - Fei Xiong - performed the literature search and collected the data, and assessed the study quality.

Author 3 - Shengzhong Yi - revised the manuscript and language, and assessed the study quality.
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