INPLASY

Prognostic and clinicopathological significance of controlling nutritional status (CONUT) score in patients with lymphoma: a meta-analysis

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ADMINISTRATIVE INFORMATION

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

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 08 August 2023 and was last updated on 08 August 2023.

INTRODUCTION

Review question / Objective Function of controlling nutritional status (CONUT) score for predicting prognosis of lymphoma cases has been extensively explored, yet no consistent results can be obtained. The present meta-analysis focused on accurately evaluating if CONUT could be used to predict prognosis of lymphoma cases and its clinicopathological value.

Condition being studied PubMed, Web of Science, Embase, and Cochrane library databases were comprehensively searched from inception till March 24, 2023. Prognostic significance of CONUT in overall survival (OS) as well as progression-free survival (PFS) of lymphoma was estimated through calculating pooled hazard ratios (HRs) together with 95% confidence intervals (CIs). Relation of CONUT with clinicopathological characteristics was measured based on pooled odds ratios (ORs) together with 95%CIs.

METHODS

Search strategy For literature retrieval, the following MeSH terms were adopted combined with text words, namely, (controlling nutritional status or CONUT) and lymphoma. English articles were eligible. Review of references in related articles was also conducted, with an aim of identifying more works.

Participant or population Patients with lymphoma were confirmed by pathology.

Intervention Studies reported relation of CONUT score with survival outcomes of lymphoma and the threshold was identified for stratifying low and high CONUT.

Comparator Lymphoma patients with normal level of CONUT.

Study designs to be included Cohort studies, including prospective and retrospective cohorts published in English.

Eligibility criteria Studies conforming to criteria below were included: (1) lymphoma was confirmed by pathology; (2) studies reported relation of CONUT score with survival outcomes of lymphoma; (3) studies provided enough information for predicting hazard ratios (HRs) as well as 95% confidence intervals (CIs); (4) the threshold was identified for stratifying low and high CONUT; (5) English studies.

Information sources We thoroughly searched PubMed, Web of Science, Embase, and Cochrane library databases from inception till March 24, 2023.

Main outcome(s) In this meta-analysis, overall survival (OS) was our primary outcome, whereas progression-free survival (PFS) was secondary outcome.

Additional outcome(s) Associations between CONUT and clinicopathological factors were measured based on pooled odds ratios (ORs) as well as 95%CIs.

Quality assessment / Risk of bias analysis Subgroup analyses were also carried out for identifying the heterogeneity source. Funnel plots and Begg's test were visually inspected for assessing potential publication bias.

Strategy of data synthesis Function of CONUT in OS and PFS in lymphoma was analyzed by calculating pooled HRs together with 95% CIs. Cochran Q test and the I2 statistics were utilized to evaluate the inter-study heterogeneity. I2 >50% and Q-test P<0.10 stood for high heterogeneity, so a random-effects model was adopted; or else, a fixed-effects model was selected.

Subgroup analysis Subgroup analyses were also carried out for identifying the heterogeneity source.

Sensitivity analysis This work also conducted sensitivity analysis by removing one article each time in sequence for evaluating whether the combined results were robust.

Language restriction English.

Country(ies) involved China.

Keywords CONUT; lymphoma; meta-analysis; prognosis; evidence-based medicine.

Contributions of each author

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