

INPLASY

Prognostic and clinicopathological value of the controlling nutritional status (CONUT) score in patients with head and neck cancer: a meta-analysis

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ADMINISTRATIVE INFORMATION

Support - None.

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 11 August 2024 and was last updated on 11 August 2024.

INTRODUCTION

Review question / Objective The efficiency of controlling nutritional status (CONUT) score in detecting the prognosis of head and neck cancer (HNC) patients has been investigated in some works, but no consistent findings are obtained. Therefore, this work focused on evaluating the precise prognostic role of CONUT for HNC patients through meta-analysis.

Condition being studied The effect of CONUT on predicting the prognosis of HNC patients was evaluated through calculating combined hazard ratios (HRs) as well as 95% confidence intervals (CIs). The correlations of CONUT with clinicopathological features of HNC patients were investigated through combined odds ratios (ORs) and 95%CIs.

METHODS

Participant or population Patients with HNC.

Intervention Studies measuring pretreatment CONUT based on blood test and studies reported relations of CONUT with survival of HNC.

Comparator HNC patients with normal CONUT.

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

Eligibility criteria Studies below were included: (1) studies enrolling patients with the pathology of primary HNC; (2) studies measuring pretreatment CONUT based on blood test; (3) studies reported relations of CONUT with survival of HNC; (4) studies with available or calculable hazard ratios (HRs) as well as 95% confidence intervals (CIs); (5) the cut-off value was identified for determining low/high CONUT score; and (6) English publications. The following studies were excluded: (1) reviews, case reports, conference abstracts, letters, and comments; (2) patients suffered from other cancers besides HNC; (3) articles did not offer survival data; (4) studies included overlapped patients; and (5) animal studies.

Information sources We systemically searched PubMed, Web of Sciences, Embase, and Cochrane library databases between inception and December 19, 2023.

Main outcome(s) OS and DFS.

Quality assessment / Risk of bias analysis Study methodological quality was evaluated with the Newcastle–Ottawa Scale (NOS). Begg’s and Egger’s tests were carried out for assessing publication bias.

Strategy of data synthesis We determined combined HRs and 95% CIs for evaluating the effect of CONUT on predicting the prognosis of patients undergoing HNC. Cochran’s Q and Higgin’s I² tests were employed to assess the heterogeneity, with I² greater than 50% indicating significant heterogeneity. This study used the random-effects model in the case of significant heterogeneity (I² > 50%); or else, we selected the fixed-effects model.

Subgroup analysis Subgroup analyses were also performed for exploring the heterogeneity source.

Sensitivity analysis The effect of each study data on the results was assessed via sensitivity analysis.

Language restriction English.

Country(ies) involved China.

Keywords controlling nutritional status score; head and neck cancer; meta-analysis; evidence-based medicine; nutrition.

Contributions of each author

Author 1 - Yanyan Wang.

Author 2 - Caihua Qian.