

INPLASY PROTOCOL

To cite: Berele et al. Prognostic value of tumour infiltrating lymphocytes in nasopharyngeal carcinoma patients: Meta-Analysis. Inplasy protocol 202160014. doi: 10.37766/inplasy2021.6.0014

Received: 06 June 2021

Published: 06 June 2021

Corresponding author:
Birhanu Aberha Berele

birhanuaberhak@gmail.com

Author Affiliation:
Zhongnan Hospital of Wuhan University.

Support: JHHFPC.

Review Stage at time of this submission: Data analysis.

Conflicts of interest:
None declared.

Prognostic value of tumour infiltrating lymphocytes in nasopharyngeal carcinoma patients: Meta-Analysis

Berele, BA¹; Yang, GF²; Cai, Y³.

Review question / Objective: The purpose of this meta-analysis study was to evaluate the prognostic value of tumour infiltrating lymphocytes (TILs) in NPC patients, whether intratumoral TILs, stromal TILs and subset of TILs were associated in predicting prognosis.

Condition being studied: NPC is a common malignancy in head and neck with distinct racial and regional prevalence. At present, although several studies have conducted on the prognostic value of tumour infiltrating lymphocytes in NPC patients, however, the results are contradicting. And until now, there is no meta-analysis study conducted in this area.

Information sources: Electronic databases PubMed, PMC, MEDLINE, Web of Science, Google Scholar, Scopus, Embase, Science Direct, CNKI were searched for relevant publications prior to January 20, 2021.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 06 June 2021 and was last updated on 06 June 2021 (registration number INPLASY202160014).

INTRODUCTION

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and subset of TILs were associated in predicting prognosis.

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on the prognostic value of tumour infiltrating lymphocytes in NPC patients, however, the results are contradicting. And until now, there is no meta-analysis study conducted in this area.

METHODS

Search strategy: The recommended strategy of the Preferred Reporting Items for Systematic Review and Meta-analysis (PRISMA) guideline was used. The search was performed using the following keywords: “prognosis OR survival” AND “tumour infiltrating lymphocytes OR lymphocytes, tumour infiltrating OR TILs” AND “nasopharyngeal carcinoma”.

Participant or population: Patients diagnosed with nasopharyngeal carcinoma.

Intervention: Tumour infiltrating lymphocytes.

Comparator: High versus low level tumour infiltrating lymphocytes.

Study designs to be included: Prospective or retrospective and randomized control studies.

Eligibility criteria: The inclusion criteria were as follows: (a) published original articles. (b) Studies that evaluated the prognostic value of TILs in NPC patients. (c) Studies that reported disease free survival (DFS) or overall survival (OS) expressed in the form of HR with 95% confidence interval (CI), or that reported Kaplan Meier (KM) curve. (d) Studies that used immunohistochemistry (IHC). The exclusion criteria were: (a) conference abstracts, case reports. (b) studies that didn't provide sufficient survival data to calculate hazard ratio. (c) non-English articles.

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Main outcome(s): The primary outcomes were hazard ratio (HR) and 95% confidence interval (CI).

Additional outcome(s): The following data were recorded: name of first author, publication year, country, sample size, cut-off value, lymphocytes subtypes, location of infiltrating lymphocytes, disease stage, follow-up time, age range and outcome.

Data management: Data from Kaplan Meier survival curve were extracted by using WebPlotDigitizer version 4.0. All analysis was performed by STATA (version 16.0, Stata corporation, Texas, US).

Quality assessment / Risk of bias analysis: The Newcastle-Ottawa scale (NOS) was used to assess quality of included studies. A score of ≥ 6 were regarded as high quality. We applied the funnel plot test to assess the possibility of publication bias.

Strategy of data synthesis: Stata (Version 16.0, Stata Corporation, Texas, USA) software was applied to analyse the extracted data. HR with 95% CI was used to evaluate the prognostic value of tumour infiltrating lymphocytes on OS and DFS of patients with nasopharyngeal carcinoma.

Subgroup analysis: Subgroup analysis were used to analyse clinical heterogeneity such as subset of TILs, location of TILs, location of subset of TILs, Epstein Barr Virus (EBV).

Sensitivity analysis: None.

Language: English.

Country(ies) involved: China.

Keywords: TILs, nasopharyngeal carcinoma, prognosis.

Contributions of each author:

Author 1 - Birhanu Aberha Berele.
Email: birhanuaberhak@gmail.com
Author 2 - Guifang Yang.
Email: yangGF@whu.edu.cn
Author 3 - Yuxiang Cai.
Email: grzzlbl@sina.com