INPLASY

Efficacy and Safety of neoadjuvant tislelizumab plus chemotherapy for the Treatment of non-small cell lung cancer: A Single-Arm Meta-Analysis Among Chinese Patients

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ADMINISTRATIVE INFORMATION

Support - No.

Review Stage at time of this submission - Preliminary searches.

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 27 March 2024 and was last updated on 27 March 2024.

INTRODUCTION

Review question / Objective This meta-analysis aims to evaluate the efficacy and safety of neoadjuvant tislelizumab plus chemotherapy for the Treatment of non-small cell lung cancer.

Condition being studied Although various effective Immune checkpoint inhibitors for the first- and second-line treatment of advanced non-small cell lung cancer improved the overall survival, the optimal regimen remains controversial. Previous studies revealed that tislelizumab had extensive antitumor activities. However, almost all studies on tislelizumab in early stage non-small cell lung cancer are non-randomized controlled trials with small sample sizes, different treatment modes and uncontrolled statistical analysis, which may result in a lack of effective metrics to evaluate the efficacy and safety of tislelizumab.

METHODS

Participant or population Stage II-III non-small cell lung cancer patient.

Intervention Patients were treated with neoadjuvant tislelizumab in combination with chemotherapy.

Comparator No.

Study designs to be included Single-arm study.

Eligibility criteria Animal experiments, cell research, reviews, meta-analyses, duplicates, case report or letters were not in consideration; studies with patients number less than 10 were excluded.

Information sources The required data from all included studies were independently extracted by two investigators, and the quality assessment of the studies was performed afterwards. The

extracted characteristics were summarized as following: authors, publication year, nation, sample size, therapeutic regimen, median age and reported endpoints. Indexes for clinical and safety outcomes included ORR, R0 resection, MPR, pCR, the incidence of any AEs and ≥grade 3 AEs. Also, two investigators independently assessed and extracted the required data from all included studies.

Main outcome(s) Overall response rate(ORR), Major Pathological response (MPR), Pathological complete response (pCR), R0 resection rate.

Additional outcome(s) Adverse events (AEs).

Quality assessment / Risk of bias analysis The Newcastle-Ottawa Scale (NOS) was used to evaluate the quality of including non-controlled trials. The retrospective studies were assessed by JBI Critical Appraisal Checklist for Case Series.

Strategy of data synthesis All data in this meta-analysis were analyzed with R 4.1.2 software. Heterogeneity was measured using the Chi-square test and I2 statistic. $P < 0.1$ indicated a statistically significant difference. If significant heterogeneity (P-value 50%) existed, random-effect model was performed. Otherwise, the fixed-effects model was used. Potential publication bias was accessed by Begg's and Egger's tests.The stability of the results was assessed by sensitivity analysis.

Subgroup analysis No.

Sensitivity analysis Sensitivity analysis was performed to analyze the stability and reliability of the pooled results.

Language restriction English.

Country(ies) involved China.

Keywords Neoadjuvant, perioperative, tislelizumab,BGB-A 317, Non-SmallCell Lung Cancer, adenocarcinoma, squamous carcinoma.

Contributions of each author

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