INPLASY

Prognostic role of ctDNA in melanoma patients treated with immune checkpoint inhibitors

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ADMINISTRATIVE INFORMATION

Support - No financial support.

Review Stage at time of this submission - Data analysis.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY2024110018

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 4 November 2024 and was last updated on 4 November 2024.

INTRODUCTION

Review question / Objective Patients with melanoma receiving immune checkpoint inhibitors; Intervention methods: immune checkpoint inhibitors; Control group: patients with different levels of ctDNA; Outcome measures: on-treatment OS 、pretreatment OS 、on-treatment PFS and pretreatment PFS; Methods: Meta analysis The purpose of this study was to explore the difference of ctDNA among patients with melanoma treated with immune checkpoint inhibitors, so that ctDNA can be used as an indicator to predict the prognosis of patients with immunotherapy and provide guidance for clinicians before treatment; Subjects: Patients with melanoma receiving immune checkpoint inhibitors.

Condition being studied Immunotherapy for melanoma has revolutionized treatment outcomes, primarily through the use of immune checkpoint inhibitors like pembrolizumab and nivolumab, which enhance the body's immune response against tumor cells.

METHODS

Participant or population Patients with melanoma receiving immune checkpoint inhibitors.

Intervention immune checkpoint inhibitors.

Comparator The prognosis of patients was compared according to the level of ctDNA before treatment.

Study designs to be included Randomized controlled trials.

Eligibility criteria Inclusion criteria： (1) provided survival data in the distant future such as overall survival (OS) or progression-free survival (PFS), and the existence of feedback of therapeutic data such as the objective remission rate (ORR) or the disease control rate (DCR); (2) the literature published in English (3) Data such as HR and 95% CI can be obtained in the literature directly or indirectly. Exclusion criteria: (1) articles such as abstracts, conferences, case reports, reviews, etc.

will be excluded (2) there is data reuse (3) the literature fails to provide complete raw data information.

Information sources Pubmed 、Embase 、The Cochrane Library.

Main outcome(s) Overall survival (OS) and progression-free survival(PFS).

Quality assessment / Risk of bias analysis Newcastle-Ottawa Scale (NOS) for quality assessment; Funnel plot, egger's test and begger's' test were used to assess the risk of bias.

Strategy of data synthesis We will search, with no time restrictions, the following databases for relevant English language literature: pubmed; Embase; cochrane libraryThe search string will be built as follows: (ctDNA) AND (Immune checkpoint inhibitor) AND (melanoma). The electronic database search will be supplemented by a manual search of the reference lists of included articles.

Subgroup analysis We considered a subgroup analysis of patient age, region, and sample size of the article.

Sensitivity analysis The sensitivity was analyzed by excluding one article one by one.

Country(ies) involved China.

Keywords Melanoma; ctDNA; Iimmunotherapy; Meta-analysis.

Contributions of each author

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