INPLASY

Efficacy of PD-1 or PD-L1 inhibitors for the treatment of Cervical Cancer with varying PD-L1 expression levels: A Single-Arm Meta-Analysis

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ADMINISTRATIVE INFORMATION

Support - Not applicable.

Review Stage at time of this submission - Formal screening of search results against eligibility criteria.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY202460062

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 17 June 2024 and was last updated on 17 June 2024.

INTRODUCTION

Review question / Objective To evaluate the efficacy of PD-1 and PD-L1 inhibitors in advanced cervical cancer, focusing on different levels of PD-L1 expression.

Condition being studied Cervical cancer remains one of the leading causes of cancer-related mortality among women worldwide, particularly in low- and middle-income countries. Despite significant advances in screening and vaccination, many patients still present with advanced or recurrent disease, where treatment options are limited and prognosis is poor.

METHODS

Participant or population Patients diagnosed with advanced or recurrent cervical cancer, regardless of subtype.
Patients treated with PD-1 or PD-L1 inhibitors, alone or in combination with other treatments.

Intervention Patients treated with PD-1 or PD-L1 inhibitors, alone or in combination with other treatments.

Comparator Not applicable.

Study designs to be included Phase II clinical trials or retrospective analyses.

Eligibility criteria Studies reporting clinical outcomes of interest, including ORR, DCR, median PFS, and median OS, were assessed using RECIST 1.1 criteria.
Tumor PD-L1 expression was tested and calculated as a combined positive score (CPS), defined as the number of PD-L1-stained cells divided by the total number of vital tumor cells multiplied by 100. Positivity was defined as a CPS ≥1.

Information sources We searched the PubMed, EMBASE, Web of Science, and Cochrane Library

databases from inception to May 25, 2024, limited to studies published in English.

Main outcome(s) Studies reporting clinical outcomes of interest, including ORR, DCR, median PFS, and median OS, were assessed using RECIST 1.1 criteria.

Quality assessment / Risk of bias analysis Clinical study quality was assessed using the JBI Critical Appraisal Checklist for Case Series.

Strategy of data synthesis All analyses were conducted using STATA/MP 16.0. Heterogeneity among studies was assessed using the chi-square test and I^2 statistic. Fixed-effects models were used for $I^2 < 50\%$ (low heterogeneity), and random-effects models were used for $I^2 \geq 50\%$ (high heterogeneity).

Subgroup analysis If the necessary data are available, subgroup analyses will be done for Cervical Cancer patients with tumor histology, performed region, dosage, and duration of PD-1/PD-L1 inhibitors, PD-1/PD-L1 inhibitors single agent or in combination with other chemotherapy drugs and study design.

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

Country(ies) involved China.

Keywords PD-1inhibitors, PD-L1 inhibitors, PD-L1 expression, cervical cancer, meta-analysis.

Contributions of each author

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