INPLASY PROTOCOL

To cite: Huang. MMP-2 genetic variants influences platinum-induced myelosuppression of cervical cancer: A protocol for systematic review. Inplasy protocol 202230178. doi: 10.37766/inplasy2022.3.0178

Received: 31 March 2022

Published: 31 March 2022

Corresponding author:
Kecheng Huang

kchuang@tjh.tjmu.edu.cn

Author Affiliation:
HUST.

Support: **NSFC.**

Review Stage at time of this submission: **Piloting of the study selection process.**

Conflicts of interest:
None declared.

MMP-2 genetic variants influences platinum-induced myelosuppression of cervical cancer: A protocol for systematic review

Huang, K[1].

Review question / Objective: **Myelosuppression is one of the most common toxicity induced by chemotherapy or concurrent chemo-radiotherapy (CCRT) among patients with cervical cancer. The system review is designed to assess the efficacy of MMP-2 by combining the previous reports together.**
Condition being studied: **Cervical carcinoma has been one of the most common female carcinomas worldwide. It has been estimated that 604,127 new cervical carcinoma cases and 341,831 deaths were reported worldwide in 2020.1 Treatments including concurrent chemo-radiotherapy (CCRT) and adjuvant chemotherapy may be effective, but is poorly tolerated in some patients.2 Bone marrow suppression is one of the most common adverse effects of chemotherapy. Severe myelosuppression (WHO grade III-IV) with risks of secondary sepsis and other life-threatening complications. Severe chemotherapy-related toxicity may be caused by a conspiracy of internal factors and external factors.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 31 March 2022 and was last updated on 31 March 2022 (registration number INPLASY202230178).

INTRODUCTION

Review question / Objective: **Myelosuppression is one of the most common toxicity induced by chemotherapy or concurrent chemo-radiotherapy (CCRT) among patients with cervical cancer. The system review is designed to assess the efficacy of MMP-2 by combining the previous reports together.**

Condition being studied: **Cervical carcinoma has been one of the most common female carcinomas worldwide. It**

has been estimated that 604,127 new cervical carcinoma cases and 341,831 deaths were reported worldwide in 2020.1 Treatments including concurrent chemo-radiotherapy (CCRT) and adjuvant chemotherapy may be effective, but is poorly tolerated in some patients.2 Bone marrow suppression is one of the most common adverse effects of chemotherapy. Severe myelosuppression (WHO grade III-IV) with risks of secondary sepsis and other life-threatening complications. Severe chemotherapy-related toxicity may be caused by a conspiracy of internal factors and external factors.

METHODS

Participant or population: Patients with cervical cancer undergoing platinum-based therapy.

Intervention: MMP-2 genetic variant.

Comparator: Mutant carriers vs wild type carriers.

Study designs to be included: RCT, Cohort, cross-sectional studies, case-control studies.

Eligibility criteria: Myelosuppression induced by chemotherapy or concurrent chemo-radiotherapy (CCRT) among patients with cervical cancerMyelosuppression induced by chemotherapy or concurrent chemoradiotherapy(CCRT) among patients with cervical cancer.

Information sources: Databases including Pubmed, Embase, the Cochrane Library, Wanfang, China National Knowledge Infrastructure (CNKI), VIP database, and Chinese Biomedical Databases (CBM) will be used to search the studies.

Main outcome(s): Toxicity: RR, OR and corresponding 95% CI were extracted if they were provided in the articles.

Quality assessment / Risk of bias analysis: Funnel plot was employed to display and visually spot the publication bias that may exist during pooling across the studies. As funnel plot was unable to give a definite conclusion, non-parametric test (Begg's test) and parametric test (Egger's test) were also used in the study to detect the publication bias.

Strategy of data synthesis: As described above, the relationship between the mutation and long-term survival was measured by HR with 95% confidential interval (CI).

Subgroup analysis: According to the types of bone marrow depression, subgroup analysis will be made. Subgroup analysis will also be made accordant with the acupuncture methods.

Sensitivity analysis: Sensitivity analysis will be made to evaluate the robustness of the combined result as well as the origin of the heterogeneity.

Country(ies) involved: China.

Keywords: Cervical cancer; Myelosuppression; Systematic review.

Contributions of each author:
Author 1 - Kecheng Huang.