International Platform of Registered Systematic Review and Meta-analysis Protocols

INPLASY

Postdiagnostic aspirin use in women with breast cancer

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ADMINISTRATIVE INFORMATION

Support - None.

Review Stage at time of this submission - Completed but not published.

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 03 November 2023 and was last updated on 03 November 2023.

INTRODUCTION

R eview question / Objective Could postdiagnostic use of aspirin improve survival of patients with breast cancer?

Rationale Although comprehensive treatments have been intensively applied to women with breast cancer, survival of the patients remains poor. Aspirin may confer anticancer efficacy, while its efficacy in women with breast cancer remains unknown.

Condition being studied Breast cancer is one of the most prevalent malignancies in women.

METHODS

Search strategy (1) "aspirin" OR "antiplatelet" OR "nonsteroidal anti-inflammatory drugs" OR "NSAIDs" (2) "breast cancer"; and (3) "survival" OR "prognosis" OR "mortality" OR "death" OR "recurrence" OR "progression" OR "metastasis" OR "relapse".

Participant or population Women with a validated diagnosis of breast cancer.

Intervention With postdiagnostic use of aspirin.

Comparator Without postdiagnostic use of aspirin.

Study designs to be included Observational studies.

Eligibility criteria Fulltext in English journals.

Information sources PubMed, Embase and Web of Science.

Main outcome(s) the incidence of breast cancer recurrence or breast cancer mortality during follow-up as compared between women with breast cancer who were with and without the postdiagnostic use of aspirin.

Data management Two authors independently searched literature and extracted data.

Quality assessment / Risk of bias analysis Two authors independently assessed study quality.

Strategy of data synthesis In order to synthesize data, we used a randomized-effects model, which incorporates between-study heterogeneity and provides a more generalized result.

Subgroup analysis Predefined subgroup analyses were performed according to study design characteristics and adjustment of hormonal receptor status of the tumor.

Sensitivity analysis Not performed.

Language restriction English.

Country(ies) involved China.

Keywords Breast cancer; Aspirin; Recurrence; Mortality; Meta-analysis.

Contributions of each author Author 1 - Chuanfeng Wu. Author 2 - Minmin Hu.