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Association between paraoxonase 1 -108C/T polymorphism and coronary heart disease: an updated meta-analysis

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ADMINISTRATIVE INFORMATION

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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 At present, no consensus is reached among articles that investigate the relationship of paraoxonase 1(PON1) -108C/T polymorphism with susceptibility of coronary heart disease(CHD) so far.

Condition being studied In this regard, the present meta-analysis was conducted to comprehensively review existing articles related to the relationship of PON1 -108C/T polymorphism with CHDsusceptibility.

METHODS

Participant or population PON1 -108C>T polymorphism and CHD.

Intervention To evaluate the impact of PON1 -108C>T polymorphism on CHD clinical outcomes.

Comparator The PON1 -108T allele is the risk factor of CHD.

Study designs to be included Meta analysis.

Eligibility criteria We selected studies based on the following criteria: (a) case-control articles evaluating the relationship of PON1 -108C>T with CHD susceptibility; (b) studies conducted by enrolling irrelevant subjects; (c) studies with enough data on ORs and 95%CIs. At the same time, reports, reviews, letters and comments were eliminated from this study. For duplicates, the one that had the greatest sample size was adopted for the present meta-analysis.

Information sources Web of Science, PubMed, CNKI and Embase were systemically retrieved to enroll eligible articles published before June 2020.

Main outcome(s) The meta-analysis was conducted to found the relationship of PON1 -108C/T polymorphism with CHD susceptibility.

Quality assessment / Risk of bias analysis Begg's funnel plot was employed to investigate the bias of publication, with $P<0.05$ indicating the presence of significant bias of publication.

Strategy of data synthesis STATA12.0(Stata Corporation, College Station, Texas) was utilized for meta-analysis.

Subgroup analysis Subgroup analyses is based on HWE,sample size and race.

Sensitivity analysis We also conducted sensitivity for evaluating result stability through eliminating a study each time for determining its impact on combined ORs.

Country(ies) involved China.

Keywords Coronary heart disease, -108C/T, Risk.

Contributions of each author

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