INPLASY

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Global prevalence of erectile dysfunction and its associated risk factors among males with type 1 diabetes: a systematic review and meta-analysis

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ADMINISTRATIVE INFORMATION

Review Stage at time of this submission - Data analysis.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY2023100067

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 20 October 2023 and was last updated on 20 October 2023.

INTRODUCTION

Review question / Objective We aimed to conduct a comprehensive systematic review and meta-analysis specifically focusing on the prevalence and risk factors of ED among males with type 1 diabetes.

Condition being studied There is no in-depth analysis on the risk factors of ED prevalence among males with type 1 diabetes. Therefore, we aimed to conduct a comprehensive systematic review and meta-analysis specifically focusing on the prevalence and risk factors of ED among males with type 1 diabetes.

METHODS

Participant or population Males with type 1 diabetes.

Intervention Type 1 diabetes.

Comparator Controls without type 1 diabetes.

Study designs to be included Systematic review and meta-analysis.

Eligibility criteria The inclusion criteria were: i) the research involved adult males as the target population; ii) the study reported the prevalence of ED; iii) the subjects were diagnosed with type 1 diabetes.

Information sources In this systematic review and meta-analysis, we comprehensively searched the following electronic databases: Pubmed, Embase, and Web of Science.

Main outcome(s) Prevalence and risk factors of ED.

Quality assessment / Risk of bias analysis The quality of each included study was assessed using

the quality assessment criteria for observational studies recommended by the Agency for Healthcare Research and Quality (AHRQ). Each item was graded as "yes," "no," or "unclear." Studies with a score ≥ 8 points were considered high quality, those with 6-7 points were considered medium quality, and those with ≤ 5 points were considered low quality.

Strategy of data synthesis Statistical analyses were conducted using Stata 16 (StataCorp LLC, College Station, TX, USA). We summarized the overall prevalence of ED among males with type 1 diabetes with a 95% CI, as well as the prevalence in subgroups defined by study region, publication year, study design, sample size, study quality, and ED measure.

Subgroup analysis Sources of heterogeneity were explored through subgroup analyses, including potential moderators such as publication year, mean age, mean duration of diabetes, sample size, study quality.

Sensitivity analysis Sensitivity analysis was conducted by excluding each study one at a time from the meta-analysis.

Country(ies) involved China.

Keywords Prevalence; erectile dysfunction; risk factor; type 1 diabetes; systematic review; meta-analysis.

Contributions of each author
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