INPLASY PROTOCOL

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None declared.

Risk factors for pancreatic cancer in patients with new onset diabetes - Systematic Review and Meta-analysis

Mellenthin, C[1], Balaban, V[1], Dugic, A[3]; Cullati, S[4]; Egger, B[5].

Review question / Objective: Which additional risk factors raise the incidence of pancreatic cancer in the population of new onset diabetics?

Condition being studied: Pancreatic cancer, new onset diabetes.

Eligibility criteria: Inclusion criteria are:· English abstract available· The population of newly onset diabetics is examined, at least as a subgroup. Newly diagnosed is defined as onset of maximal 3 years ago.· Information on other risk factors of patients is available in the study.

INTRODUCTION

Review question / Objective: Which additional risk factors raise the incidence of pancreatic cancer in the population of new onset diabetics?

Rationale: Patients with new-onset diabetes (NOD) are at risk of pancreatic adenocarcinoma (PDAC), but the most relevant additional risk factors and clinical characteristics are not well established.

Condition being studied: Pancreatic cancer, new onset diabetes.

METHODS

Search strategy: Pubmed search of: (((("carcinoma, pancreatic ductal"[MeSH Terms] OR ("pancreatic neoplasms"[MeSH Terms] OR ("pancreatic"[All Fields] AND "neoplasms"[All Fields]) OR "pancreatic neoplasms"[All Fields] OR ("pancreatic"[All Fields] AND "cancer"[All Fields]) OR "pancreatic cancer"[All Fields])) AND ("probability"[MeSH Terms] OR "risk factors"[MeSH Terms] OR "diagnostic techniques and procedures"[MeSH Terms]) AND "diabetes mellitus, type 2"[MeSH Terms]) AND hasabstract[text]) AND hasabstract[text]
Embase search of:
Pancreas carcinoma AND non insulin dependent diabetes mellitus AND high risk population
OR
Pancreas cancinoma AND non insulin dependent diabetes mellitus AND risk assesment
Google scholar search of:
allintitle: diabetes risk OR diagnosis "pancreatic cancer"
After selection of relevant articles, we also check their references for additional possible matches with our research topic which had been missed in the initial search. Additional papers already known tot he authors or come to their knowledge from other sources (publication alerts, colleagues, mendeley suggestions, etc) will be also included.

Participant or population: Patients with new onset diabetes

Intervention: No intervention, as it is a diagnostic/epidemiologic study.

Comparator: Patients without diabetes, or patients without pancreatic cancer.

Study designs to be included: Observational studies.

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of newly onset diabetics is examined, at least as a subgroup. Newly diagnosed is defined as onset of maximal 3 years ago.· Information on other risk factors of patients is available in the study.

Information sources: PubMed, Embase, Google Scholar, Mendeley, References of papers, others.

Main outcome(s): Additional risk factors of pancreatic cancer, on top of new onset diabetes If more then 2 studies examine comparable populations and risk factors, a metaanalysis will be performed. Risk factors that are looked at in less than 3 studies will be reported in the text.

Quality assessment / Risk of bias analysis: Quality assessment is conducted using ten criteria as defined in the paper by Hoy et al. in a specific bias assessment tool for prevalence studies. Overall bias is judged for selected papers following the corresponding bias flags among the ten criteria.

Strategy of data synthesis: A table will report the name of first author, journal and publication year, country and period, sample size, study type, patient characteristics, NOD definition, risk of PDAC in NOD population, and additional risk factors. Meta-analysis will be done for risk factors, OR of PDAC in NOD versus no diabetes and percentage of PDAC.

Subgroup analysis: Whenever a subgroup analysis seems relevant, Meta-analysis will report the subgroups separately.

Sensitivity analysis: This is not part of the work.

Language: English abstract.

Country(ies) involved: The authors are from Switzerland, Romania and Germany.

Keywords: pancreatic cancer, new onset diabetes, risk factors, cancer screening.

Dissemination plans: We plan to publish this work in either a general internal

medicine or epidemiological or pancreas research journal.

Contributions of each author:
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