INPLASY PROTOCOL

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Review Stage at time of this submission: Data analysis.

Conflicts of interest:
All authors declare that they have no conflicts of interest.

The meta-analysis of the correlation between diabetes and the prognosis of nephrectomy

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Review question / Objective: To better increase the prognosis of nephrectomy, we tried to find the possible relationship between diabetes and the survival of nephrectomy for renal cell cancer patients.
Condition being studied: Diabetes is a factor that is always controlled perioperatively for its negative effects on human health associated with cardiovascular complications, including stroke, coronary heart disease, renal disease, and neuropathy. And diabetes can also advance the tumor's malignancy according to the influence on tumors' sizes and metastases. Besides, the development of chronic renal disease after nephrectomy is also reported higher among diabetes group. And chronic kidney disease may also contribute to patients' postoperative survival. So we wanted to study the possible influence on the survival after nephrectomy from diabetes.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 07 May 2020 and was last updated on 07 May 2020 (registration number INPLASY202050026).

INTRODUCTION

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METHODS

Search strategy: ((((((Kidney Neoplasms (MeSH)) OR (Kidney Neoplasm) OR (Neoplasm, Kidney) OR (Renal Neoplasms) OR (Neoplasm, Renal) OR (Neoplasms, Renal) OR (Renal Neoplasm) OR (Neoplasms, Kidney) OR (Cancer of Kidney) OR (Kidney Cancers) OR (Renal Cancer) OR (Cancer, Renal) OR (Cancers, Renal) OR (Renal Cancers) OR (Cancer of the Kidney) OR (Kidney Cancer) OR (Cancer, Kidney) OR (Cancers, Kidney))) AND ((Nephrectomy (MeSH)) OR (Nephrectomies) OR (Heminephrectomy) OR (Heminephrectomies))) AND Diabetes)) AND ((Prognosis (MeSH)) OR (Prognostic Factors) OR (Factor, Prognostic) OR (Factors, Prognostic) OR (Prognostic Factor)).

Participant or population: Renal cell cancer patients.

Intervention: Nephrectomy.

Comparator: Diabetes or not.

Study designs to be included: Clinical researches.

Eligibility criteria: The articles are: 1). clinical researches, 2). renal cell caner patients, 3). the baseline information and analysis included diabetes, 4). use nephrectomy as the only therapy, 5). outcomes included overall survival and cancer-specific survival, 6). English articles.

Information sources: Electron databases, previous meta-analysis.

Main outcome(s): Overall survival and cancer-specific survival.

Quality assessment / Risk of bias analysis: Newcastle-Ottawa scale score, Egger and Begg regression.

Strategy of data synthesis: Data extracted were analyzed by the SPSS 16.0 with the metan package by fixed and random models to find the total effect size of CSS and OS. The heterogeneity for studies r was evaluated using the Cochrane Q test and Higgins I^2.

Subgroup analysis: By the existence of metastasized patients.

Sensibility analysis: All group's data influence was estimated by the metainf package to find the sensibility of each articles.

Language: English.

Country(ies) involved: China, Italy, Canda, Korea.

Keywords: Diabetes mellitus; nephrectomy; overall survival; cancer-specific survival.

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Author 1 - Yushi He.
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Author 4 - Xi Jin.
Author 5 - Kunjie Wang.
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