INPLASY PROTOCOL

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Is There a Relationship Between Smoking and Stricture Recurrence After the Urethroplasty? A Systematic Review and Meta-Analysis

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Review question / Objective: **Is There a Relationship Between Smoking and Stricture Recurrence After the Urethroplasty?**
Condition being studied: **The relationship Between smoking and stricture recurrence after the urethroplasty will be inspected in this review.**
Information sources: **This meta-analysis was carried out according to the principle of preferred reporting items for systematic reviews and meta-analysis (PRISMA). We searched Pubmed, Embase, Web of Science and Cochrane Library to identify relevant studies. The latest search date was February 1, 2020. The searching key words included urethroplasty, smoking, smoker, tobacco consumption and stricture recurrence. Furthermore, reference part of every candidate literature was manually screened to find possible data source.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 23 May 2020 and was last updated on 23 May 2020 (registration number INPLASY202050087).

INTRODUCTION

Review question / Objective: **Is There a Relationship Between Smoking and Stricture Recurrence After the Urethroplasty?**

Condition being studied: **The relationship Between smoking and stricture recurrence after the urethroplasty will be inspected in this review.**

METHODS

Participant or population: **Patients after the urethroplasty.**

Intervention: this study is based on observational studies, no interventions.

Comparator: HR,OR.

Study designs to be included: retrospective studies, prospective studies.

Eligibility criteria: Exclusion criteria were as follow: previously published reviews, meta-analysis, letters, comments and conference abstract were excluded.

Information sources: This meta-analysis was carried out according to the principle of preferred reporting items for systematic reviews and meta-analysis (PRISMA). We searched Pubmed, Embase, Web of Science and Cochrane Library to identify relevant studies. The latest search date was February 1, 2020. The searching key words included urethroplasty, smoking, smoker, tobacco consumption and stricture recurrence. Furthermore, reference part of every candidate literature was manually screened to find possible data source.

Main outcome(s): Pooled odd ratios between smoking and stricture recurrence after the urethroplaty will be calculated based on the different models.

Quality assessment / Risk of bias analysis: All included studies were evaluated by Newcastle-Ottawa Scale (NOS) system and the evaluation procedure was performed by two independent reviewers. According to the NOS, 7-9 score studies were thought as high-level quality, 5-6 score studies were thought as moderate-level and <5 score studies were low-level quality. Low-level quality studies shouldn't be involved in the meta-analysis.

Strategy of data synthesis: In this study, based on univariate and multivariate analysis results, the relationship between smoking and stricture recurrence was pooled in meta-analysis. All analysis was powered by Stata 15.0 software (Stata corporation, College Station TX, USA). Statistical significance was defined as P<0.05 in this study. Pooled estimate larger than 1 indicated that smoking would make patients more vulnerable to stricture recurrence.

Subgroup analysis: All included studies were evaluated by Newcastle-Ottawa Scale (NOS) system and the evaluation procedure was performed by two independent reviewers. According to the NOS, 7-9 score studies were thought as high-level quality, 5-6 score studies were thought as moderate-level and <5 score studies were low-level quality. Low-level quality studies shouldn't be involved in the meta-analysis.

Sensibility analysis: Furthermore, sensitivity analysis was performed to test stability of meta-analysis results.

Language: English.

Country(ies) involved: China.

Contributions of each author:
Author 1 - Yucheng Ma.
Author 2 - Zhongyu Jian.
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Author 4 - Hong Li.
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