INPLASY PROTOCOL

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None declared.

The Pharyngeal Packs for Dental and Otolaryngological Surgery: A Meta-analysis of High-quality RCTs

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Review question / Objective: **To quantitatively evaluate the role of pharyngeal packing in dental and otolaryngological surgeries by meta-analysis**
Eligibility criteria: **Trials were included if they met the following criteria: (1) high-quality randomized controlled trial; (2) application of pharyngeal pack was the only intervention; (3) investigations of dental and otolaryngological surgeries; (4) full English text could be identified; and (5) at least one available parametric indicator was addressed.The exclusion criteria were as follows: (1) low-quality RCT or non-RCT; (2) pharyngeal pack was not the only intervention or the comparison of different pack types; (3) full English text could not be traced; (4) absence of information on selected raw data; and (5) irrelevant studies, reviews, comments or clinical case reports.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 01 February 2023 and was last updated on 01 February 2023 (registration number INPLASY202320002).

INTRODUCTION

Review question / Objective: **To quantitatively evaluate the role of pharyngeal packing in dental and otolaryngological surgeries by meta-analysis**

Condition being studied: **Application of pharyngeal packing in dental and otolaryngological surgeries.**

METHODS

Participant or population: **The patients who underwent the dental and otolaryngological surgeries.**

Intervention: Pharyngeal packing.

Comparator: No packing.

Study designs to be included: High-quality randomized controlled trial.

Eligibility criteria: Trials were included if they met the following criteria: (1) high-quality randomized controlled trial; (2) application of pharyngeal pack was the only intervention; (3) investigations of dental and otolaryngological surgeries; (4) full English text could be identified; and (5) at least one available parametric indicator was addressed.The exclusion criteria were as follows: (1) low-quality RCT or non-RCT; (2) pharyngeal pack was not the only intervention or the comparison of different pack types; (3) full English text could not be traced; (4) absence of information on selected raw data; and (5) irrelevant studies, reviews, comments or clinical case reports.

Information sources: Globally recognized databases, including PubMed, Embase and Cochrane Central.

Main outcome(s): (1) incidence of nausea, (2) incidence of vomiting, (3) incidence of total PONV, (4) incidence of throat pain, (5) level of throat pain.

Quality assessment / Risk of bias analysis: The assessment of the quality of the methodological process was judged by the Jadad scoring system ranging from 0 to 5 points. The risk of bias for each eligible study was evaluated by referring to the Cochrane Risk of Bias assessment tool.

Strategy of data synthesis: Regarding selected parameters, the risk ratio (RR) and its 95% confidence interval (CI) were used for the pooled estimation of dichotomous variables to address the risk of clinical incidence of nausea, vomiting, total PONV and throat pain. Pooled standard mean differences (SMDs) with associated 95% CIs were also determined to calculate the final fluctuation of VAS of throat pain between the packing group and the no packing group as a continuous variable. For the calculation of VAS, data in the form of medians and ranges were converted to mean and standard deviation using published formulas. The heterogeneity of the overall results was estimated with the Q statistic, and I2>50% or I2<50% indicated significant or insignificant heterogeneity, respectively. A random-effects or fixed-effects model was applied according to the significance of heterogeneity. In addition, the symmetry of the funnel plot and the P value of the Egger test were utilized to qualitatively and quantitatively evaluate the publication bias of the included trials.

Subgroup analysis: Subgroup analysis was performed regarding different surgical types, packing types and packing placements.

Sensitivity analysis: NA.

Language restriction: English.

Country(ies) involved: China.

Keywords: Pharyngeal packs, PONV, Throat pain, Meta-analysis.

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