INPLASY PROTOCOL

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Review Stage at time of this submission: Formal screening of search results against eligibility criteria.

Conflicts of interest:
None declared.

Risk factors of postoperative pulmonary infection in patients with gastric cancer：A systematic review and meta-analysis

Wang, MX[1]; Gao, Q[2]; Zhou, CJ[3]; Tan, ZJ[4].

Review question / Objective: What are the risk factors of postoperative pulmonary infection in patients with gastric cancer.

Eligibility criteria: Study design: We will include all observational studies (cases - Control study, cohort study, prospective study, etc.) to analyze the risk factors of postoperative pulmonary infection in patients with gastric cancer Participants: patients with gastric cancer diagnosed by pathological examination and undergoing surgical treatment will be included; Diagnosis of postoperative pulmonary infection: There are clear diagnostic criteria for pulmonary infection Outcomes: Risk factors for pulmonary infection.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 16 May 2021 and was last updated on 16 May 2021 (registration number INPLASY202150057).

INTRODUCTION

Review question / Objective: What are the risk factors of postoperative pulmonary infection in patients with gastric cancer.

Condition being studied: Gastric cancer is one of the most common gastrointestinal malignancies. According to data published by Globocan 2018, there were about 1.034 million new cases of gastric cancer worldwide in 2018, and about 783,000 deaths due to gastric cancer. Gastric cancer is the fifth most frequently diagnosed cancer worldwide and the third leading cause of cancer-related death.

Currently, surgery is the main clinical treatment for gastric cancer, and pulmonary infection is one of the common postoperative complications of gastric cancer. The literature showed that the incidence of postoperative pulmonary infection in patients with gastric cancer was 2.2%~21.5%. Postoperative pulmonary infection in patients with gastric cancer not only leads to prolonged hospital stay and increased treatment costs, but also increases the perioperative mortality of patients, which seriously affects the postoperative recovery and quality of life of patients and becomes an important factor affecting the prognosis of patients. Therefore, in order to reduce postoperative pulmonary infection, it is necessary to identify the risk factors and actively take preventive measures for high-risk patients. But at home and abroad about the research conclusion lung infection postoperatively in patients with gastric cancer risk factors still exist differences, this study aimed to research on gastric cancer risk factors of postoperative pulmonary infection in patients with Meta analysis, explore the postoperative pulmonary infection in patients with gastric cancer risk factors, in order to provide the basis for clinical prevention and treatment of gastric cancer patients of postoperative pulmonary infection.

METHODS

Search strategy: Chinese and English databases are searched comprehensively by computer. Chinese databases include CNKI, CBM, Wanfang Database and VIP.English databases include Embase, PubMed, and The Cochrane Library. Chinese search terms are gastric tumor, gastric cancer, pulmonary infection, hospital acquired pneumonia, pneumonia, risk factors, influencing factors, etc. Stomach neoplasms, Stomach cancer, Gastric cancer, Pulmonary infection, Lung infection, Pneumonia, Hospital Acquired Pneumonia, Risk factors, Influence factor, etc.

Participant or population: The subjects were patients with gastric cancer diagnosed by pathological examination and undergoing surgical treatment.

Intervention: Gastric cancer patient with postoperative pulmonary infection.

Comparator: Patients with gastric cancer without postoperative pulmonary infection

Study designs to be included: We will include all observational studies (cases - Control study, cohort study, prospective study, etc.) to analyze the risk factors of postoperative pulmonary infection in patients with gastric cancer.

Eligibility criteria: Study design: We will include all observational studies (cases - Control study, cohort study, prospective study, etc.) to analyze the risk factors of postoperative pulmonary infection in patients with gastric cancer Participants: patients with gastric cancer diagnosed by pathological examination and undergoing surgical treatment will be included; Diagnosis of postoperative pulmonary infection: There are clear diagnostic criteria for pulmonary infection Outcomes: Risk factors for pulmonary infection.

Information sources: Chinese and English databases are searched comprehensively by computer. Chinese databases include CNKI, CBM, Wanfang Database and VIP.English databases include Embase, PubMed.

Main outcome(s): Risk factors for postoperative pulmonary infection in patients with gastric cancer.

Quality assessment / Risk of bias analysis: Two researchers used the Newcastle-Ottawa scale scale (NOS) to evaluate the quality of the included literature from three aspects: study population selection, comparability between groups, and measurement of exposure factors.

Strategy of data synthesis: We will use RevMan 5.3 software and Stata15.0 software for data synthesis.

Subgroup analysis: If the results of meta analyses are heterogenous, subgroup analysis will be performed based on several aspects, such as etiology and age.

Sensitivity analysis: We will conduct sensitivity analysis of risk factors by converting fixed effects model to random effects model.

Language: English and Chinese.

Country(ies) involved: China.

Keywords: gastric cancer; pulmonary infection; risk factors; Meta analysis.

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