INPLASY PROTOCOL

To cite: Guo et al. Survival and complications after Neoadjuvant chemoradiotherapy versus neoadjuvant chemotherapy for Esophageal Squamous Cell Cancer：a meta-analysis. Inplasy protocol 2021120031. doi: 10.37766/inplasy2021.12.0031

Received: 05 December 2021

Published: 05 December 2021

Corresponding author:
Yaru Guo

1768675516@qq.com

Author Affiliation:
Xuzhou Medical University

Support: **China (grant no. 81972845).**

Review Stage at time of this submission: **Preliminary searches.**

Conflicts of interest:
None declared.

Survival and complications after Neoadjuvant chemoradiotherapy versus neoadjuvant chemotherapy for Esophageal Squamous Cell Cancer: a meta-analysis

Guo, Y[1]; Xu, M[2]; Xin, Y[3].

Review question / Objective: **To compare the survival and complications of neoadjuvant chemoradiation versus neoadjuvant chemotherapy for esophageal squamous cell carcinoma.**
Condition being studied: **We collected all the clinical trials and retrospective studies that studied neoadjuvant chemoradiotherapy versus neoadjuvant chemotherapy for esophageal squamous cell carcinoma,which were retrieved from CNKI, Wanfangdate, CBM, VIP, PubMed, EMBase,Web of science, The cochrance of library.Meta-analysis was conducted by RevMan5.3 soft and Stata 15 after date extraction and quality Evaluation.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 05 December 2021 and was last updated on 05 December 2021 (registration number INPLASY2021120031).

INTRODUCTION

Review question / Objective: **To compare the survival and complications of neoadjuvant chemoradiation versus neoadjuvant chemotherapy for esophageal squamous cell carcinoma.**

Rationale: **Esophageal cancer is the eighth most common type of cancer in the world. Esophageal adenocarcinoma (AC) is more common in Western countries. In Eastern countries, especially China, 90% of cases are squamous cell carcinoma (SCC). The**

efficacy of neoadjuvant therapy combined with surgery for advanced esophageal cancer has been clear, and it has been recommended by many guidelines, and has been widely used in the treatment of advanced esophageal cancer. Regardless of the histological type, surgery after neoadjuvant CRT is recommended as the standard treatment. As far as we know, there are currently limited data to support which neoadjuvant therapy is better for patients with esophageal squamous cell carcinoma (ESCC).This meta-analysis aimed to systematically evaluate the survival and complications after Neoadjuvant chemoradiotherapy versus neoadjuvant chemotherapy for Esophageal Squamous Cell Cancer and to provide evidence-based medical data for the treatment of esophageal cancer.

Condition being studied: We collected all the clinical trials and retrospective studies that studied neoadjuvant chemo-radiotherapy versus neoadjuvant chemotherapy for esophageal squamous cell carcinoma,which were retrieved from CNKI, Wanfangdate, CBM, VIP, PubMed, EMBase,Web of science, The cochrance of library.Meta-analysis was con-ducted by RevMan5.3 soft and Stata 15 after date extraction and quality Evaluation.

METHODS

Search strategy: Collected all the clinical trials and retrospective studies on neoadjuvant chemoradiotherapy compared with neoadjuvant chemotherapy for esophageal squamous cell carcinoma through searches of the Cochrane Library, PubMed, Embase, Web of Science, Chinese National Knowledge Infrastructure (CNKI), Chinese Biological Medicine (CBM) Database, Wanfang Database, and the VIP Database until December 2021. We also searched for related trials in the International Clinical Trial Registry Platform (ICTRP) and the Chinese Clinical Registry.

Participant or population: Patients diagnosed with Esophageal Squamous Cell Cancer by histopathological examination and cytological examination.

Intervention: Neoadjuvant chemo-radiotherapy.

Comparator: neoadjuvant chemotherapy.

Study designs to be included: Randomized controlled trial or retrospective studies.

Eligibility criteria: Patients diagnosed with Esophageal Squamous Cell Cancer by histopathological examination and cytological examination.

Information sources: PubMed, EMBase, The Cochrane of library, web of science, CNKI, Wanfangdate, CBM, VIP.

Main outcome(s): Pathological complete remission, R0 resection rate, 1, 3, 5 years overall survival rates, toxicity of neoadjuvant treatment (included myelosuppression, gastrointestinal reaction, esophagitis) Postoperative complications (included anastomotic leak, pulmonary complications, cardiac complications, chyle leak, perioperative mortality etc).

Additional outcome(s): Postoperative vocal cord paralysis, infection and bleeding.

Data management: Noteexpress.

Quality assessment / Risk of bias analysis: RCT experiments used Cochrane quality evaluation standards, and non-randomized controlled studies used NOS scales for literature quality evaluation.

Strategy of data synthesis: All analyses were performed by Review Manager 5.3 and Stata 15. Results were reported as pooled as Risk ratio(RR) and their 95% confidence interval (CI). Firstly, heterogeneity was identified. If the heterogeneity was not significant ($p > 0.1$, $I2 < 50.0\%$), then the fixed-effect model can be performed, otherwise, the random effects model. Results of this meta-analysis

were presented by forest plots, and the p value less than 0.05 was considered significant. Publication bias was evaluated though funnel plots.

Subgroup analysis: None.

Sensitivity analysis: The sensitivity analysis was carried out by Stata software, we will generated a Begg's funnel plot and performed a sensitivity analysis.

Language: English.

Country(ies) involved: China.

Other relevant information: None.

Keywords: Esophageal Squamous Cell Cancer; Neoadjuvant Chemoradiotherapy; Neoadjuvant Chemotherapy.

Contributions of each author:

Author 1 - Yaru Guo.
Email: 1768675516@qq.com
Author 2 - Mingna Xu.
Email: 1198551962@qq.com
Author 3 - Yong Xin.
Email: 2175170762@qq.com