INPLASY PROTOCOL

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Survival and complications after neoadjuvant chemoradiotherapy versus neoadjuvant chemotherapy for locally advanced gastric cancer: A systematic review and meta-analysis

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Review question / Objective: To evaluate the efficacy and safety of neoadjuvant chemoradiotherapy versus neoadjuvant chemotherapy in the treatment of locally advanced gastric cancer.

Condition being studied: Gastric cancer is the fifth most common type of cancer and the third leading cause of cancer-related death globally, with over 1,000,000 new cases and an estimated 783,000 deaths in 2018. Worldwide, gastric cancer is the fourth most common malignant disease in males (and the fifth in females). It is also the third leading cause of cancer death in men (and fifth in women). In recent years, with the development of radiotherapy technology, neoadjuvant chemoradiotherapy has become more and more popular. Preoperative treatment of locally advanced gastric cancer (chemotherapy or radiotherapy) is still a difficult problem for clinicians. This meta-analysis aims to systematically evaluate the efficacy and safety of neoadjuvant chemoradiotherapy versus neoadjuvant chemotherapy in the treatment of locally advanced gastric cancer.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 16 December 2022 and was last updated on 16 December 2022 (registration number INPLASY2022120068).

INTRODUCTION

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METHODS

Participant or population: Patients with surgically resectable locally advanced gastric cancer with definite pathological diagnosis.

Intervention: Neoadjuvant chemo-radiotherapy.

Comparator: Neoadjuvant chemoradiotherapy versus neoadjuvant chemotherapy.

Study designs to be included: Randomized controlled trials (Rcts) and retrospective studies.

Eligibility criteria: Fully published RCTs or retrospective studies; Patients with surgically resectable locally advanced gastric cancer with definite pathological diagnosis; The experimental group was treated with NACRT and the control group was treated with NACT.

Information sources: Wanfang Database, CNKI, VIP database, China Biomedical Literature Database, PubMed, Embase and Cochrane Library.

Main outcome(s): Complete response (CR), partial response (PR), progressive disease (PD), stable disease (SD), the objective response rate (ORR), pathologic complete response (pCR), R0 resection rate, incidence of postoperative adverse reactions and overall survival(OS).

Quality assessment / Risk of bias analysis: The cochrane collaboration's tool and the Newcastle-Ottawa scale.

Strategy of data synthesis: All statistical analyses will be performed using the RevMan version 5.3 software and the Stata software(version 17).

Subgroup analysis: None.

Sensitivity analysis: The sensitivity analyses will be performed by excluding one study at a time to assess the influence of each study on overall results.

Country(ies) involved: China.

Keywords: Neoadjuvant chemotherapy, Locally advanced gastric cancer, Neoadjuvant chemoradiotherapy, Metaanalysis.

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