

# INPLASY PROTOCOL

To cite: Wu et al. Gastrectomy with or without omentectomy for cT3-4 gastric cancer: a systematic evaluation and meta-analysis. Inplasy protocol 2022120108. doi: 10.37766/inplasy2022.12.0108

Received: 28 December 2022

Published: 28 December 2022

**Corresponding author:**  
Li Zhengrong

15770736779@163.com

**Author Affiliation:**  
The First Affiliated Hospital of  
Nanchang University

**Support:** The leading scientists  
Project of Jiangxi Science and  
Technology Department  
(20213BCJL22050).

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

**Conflicts of interest:**  
None declared.

## Gastrectomy with or without omentectomy for cT3-4 gastric cancer: a systematic evaluation and meta-analysis

Wu, A<sup>1</sup>; Li, ZR<sup>2</sup>; Shu, XF<sup>3</sup>; Zeng, QW<sup>4</sup>; Feng, ZF<sup>5</sup>.

**Review question / Objective:** Greater omental resection has traditionally been part of standard radical gastrectomy. Its clinical benefit for locally advanced gastric cancer remains controversial. This study aimed to evaluate the impact of greater omentum-preserving gastrectomy on survival, recurrence, surgical outcomes, and postoperative complications in comparison with greater omental resection.

**Condition being studied:** Therefore, preserving the greater omentum may prevent intraperitoneal infection and adhesions, which has been demonstrated in the treatment of early gastric cancer. In addition, several studies in Japan have shown that gastrectomy with preservation of the greater omentum may not significantly affect the survival of patients with advanced gastric cancer. Therefore, preservation of the greater omentum is becoming the procedure of choice for radical gastric cancer in the minimally invasive era, even for advanced cancers. Given the lack of convincing evidence, we believe it is time to evaluate the clinical benefits of greater omentum preservation in gastric cancer surgery. Here, we bring together the results of current studies demonstrating the impact of gastrectomy combined with a greater omental resection on survival, recurrence, surgical outcomes, and postoperative complications in patients with LAGC by comparing them to gastrectomy combined with greater omental resection.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 28 December 2022 and was last updated on 28 December 2022 (registration number INPLASY2022120108).

### INTRODUCTION

**Review question / Objective:** Greater omental resection has traditionally been

part of standard radical gastrectomy. Its clinical benefit for locally advanced gastric cancer remains controversial. This study aimed to evaluate the impact of greater

omentum-preserving gastrectomy on survival, recurrence, surgical outcomes, and postoperative complications in comparison with greater omental resection.

**Condition being studied:** Therefore, preserving the greater omentum may prevent intraperitoneal infection and adhesions, which has been demonstrated in the treatment of early gastric cancer. In addition, several studies in Japan have shown that gastrectomy with preservation of the greater omentum may not significantly affect the survival of patients with advanced gastric cancer. Therefore, preservation of the greater omentum is becoming the procedure of choice for radical gastric cancer in the minimally invasive era, even for advanced cancers. Given the lack of convincing evidence, we believe it is time to evaluate the clinical benefits of greater omentum preservation in gastric cancer surgery. Here, we bring together the results of current studies demonstrating the impact of gastrectomy combined with a greater omental resection on survival, recurrence, surgical outcomes, and postoperative complications in patients with LAGC by comparing them to gastrectomy combined with greater omental resection.

## METHODS

**Participant or population:** Patients with advanced gastric cancer.

**Intervention:** Preservation of the greater omentum.

**Comparator:** Resection of the greater omentum.

**Study designs to be included:** Randomized controlled studies, retrospective cohort studies.

**Eligibility criteria:** Comparative studies, including randomized controlled studies, cohort studies, and case-control studies, were included. The content was to compare the outcome of preserving the greater omentum with resection of the

greater omentum in patients with locally progressive gastric cancer. Articles on tumors other than locally progressive gastric cancer and single-arm studies related to locally progressive gastric cancer were excluded. Also excluded were systematic evaluations/meta-analyses, reviews, abstracts, posters, letters to the editor, and protocols of studies of preserved greater omentum in locally progressive gastric cancer.

**Information sources:** PubMed, Embase, Web of Science, Cochrane Library, ClinicalTrials.

**Main outcome(s):** Intraoperative and postoperative characteristics (surgical approach, type of gastrectomy, operative time, intraoperative bleeding, number of lymph nodes dissected, postoperative complications), prognostic characteristics (recurrence, overall survival, recurrence-free survival).

**Quality assessment / Risk of bias analysis:** Risk of bias in randomised trials was assessed using the Cochrane Risk of Bias in Randomised Trials tool, version 2 (RoB 2). The ROBINS-I tool was used to assess non-randomised controlled trials that compared the health outcomes of two or more interventions.

**Strategy of data synthesis:** The cochrane systematic software Revman version 5.4 was used for statistical analysis.

**Subgroup analysis:** Subgroup analysis was always performed according to different study designs, including randomized controlled studies, retrospective cohort studies, propensity matching scores.

**Sensitivity analysis:** Articles are deleted one at a time, and the meta-analysis is performed again to compare the new outcomes with the previous outcomes before the article is excluded. If there is no significant difference between the two results, the sensitivity is low and the results are credible. Otherwise, it indicates that the sensitivity is high, as well as that the results are unstable.

---

**Country(ies) involved:** China.

**Keywords:** Advanced Stomach Cancer, Omentectomy, Omentum, Systematic Evaluation , Meta-analysis.

**Contributions of each author:**

Author 1 - Wu Ahao.

Author 2 - Li Zhengrong.

Author 3 - Shu Xufeng.

Author 4 - Zeng Qingwen.

Author 5 - Feng Zongfeng.