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Postoperative eradication of Helicobacter pylori in patients with gastric cancer can bring survival benefits

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ADMINISTRATIVE INFORMATION

Support - None.

Review Stage at time of this submission - Data analysis.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY202560047

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 11 June 2025 and was last updated on 11 June 2025.

INTRODUCTION

Review question / Objective Will the eradication of Helicobacter pylori after gastric cancer surgery bring any survival benefits to patients?

Condition being studied Gastric cancer.

METHODS

Participant or population Patients with gastric cancer need to undergo surgical treatment and are positive for Helicobacter pylori.

Intervention Post-operative treatment for Helicobacter pylori infection.

Comparator OS, DFS.

Study designs to be included RCT, Prospective study, retrospective study.

Eligibility criteria (1) Patients diagnosed were with gastric cancer and underwent surgical treatment. The presence of Helicobacter pylori was detected after surgery. There were no restrictions on patient age, gender, etiology, disease stage, or surgical approach. Surgical methods could include open surgery, laparoscopic surgery, or others. (2) The intervention in the experimental group was the administration of anti-Helicobacter pylori therapy after surgery. (3) The primary outcome measures were overall survival (OS) and disease-free survival (DFS). The secondary outcome measures included gastric cancer-specific mortality, gastric cancer recurrence, and overall mortality. (4) Hazard ratios (HRs), corresponding 95% confidence intervals (Cls) and survival outcomes were reported, or other data for the reconstruction of survival data, such as Kaplan-Meier curves.

Information sources Pubmed Embase Cochrane Library.

Main outcome(s) HR and 95%CI DFS OS.

Quality assessment / Risk of bias analysis NOS egger test begg test.

Strategy of data synthesis Use the Stata data analysis software for data merging.

Subgroup analysis Subgroup analysis was conducted based on factors such as the country, inclusion time, and age.

Sensitivity analysis Remove each included literature one by one for the purpose of conducting a sensitivity analysis.

Country(ies) involved China, korea.

Keywords gastric cancer; surgery; Helicobacter pylori eradication.

Contributions of each author

Author 1 - Binyan Liu. Author 2 - ZhiBo Jia. Author 3 - Lei Ding.