

INPLASY PROTOCOL

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**Review Stage at time of this
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Comparison of Segmentectomy, Lobectomy and Wedge Resection for Early-stage Non-Small Cell Lung Cancer: A Bayesian analysis

Shi, Y¹; Chen, Z²; Wu, S³; Lv, Y⁴; Liu, P⁵; Xu, H⁶; Deng, L⁷; Chen, X⁸.

Review question / Objective: P: non-small cell lung cancer; I: lobectomy; wedge resection; C: segmental resection; O: 5-year survival rates;3-year survival rates; S: retrospectively.
Condition being studied: (1) a study population comprising stage I NSCLC patients, with all histologic types and pathologic confirmation; (2) including any two or three of the following three surgical procedures: segmental, lobectomy, and wedge resection; (3) study outcomes including OS, DFS; (4) any of the following study designs: randomized controlled trial, cohort, or case-control (retrospective or prospective); (5) the study must have a sample size of more than 20 cases; and (6) the study must allow full access to its content, with languages limited to Chinese and English.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 22 August 2020 and was last updated on 22 August 2020 (registration number INPLASY202080090).

INTRODUCTION

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METHODS

Participant or population: Non-small cell lung cancer.

Intervention: Lobectomy; wedge resection.

Comparator: Segmental resection.

Study designs to be included: Retrospectively.

Eligibility criteria: Two of the authors (Y.S. and S.W.) independently analyzed the studies according to the criteria in the Cochrane Handbook for Systematic Reviews of Interventions.

Information sources: Electronic databases.

Main outcome(s): 5-year Overall survival rates.

Additional outcome(s): The 3 or 10-year OS ,and the 3 or 5 DFS rates were used as outcomes indicators.

Quality assessment / Risk of bias analysis: Six domains were assessed: selection bias, performance bias, detection bias, attrition bias, reporting bias, and other bias (e.g., small sample size bias, publication bias, etc). Risk of bias was assessed using Review Man 5.3 software.

Strategy of data synthesis: We did a random-effects model within a Bayesian framework using Markov chain Monte Carlo methods in WinBUGS (MRC Biostatistics Unit, Cambridge, UK)[14]and R software 3.4.4 (2018-03-15).

Subgroup analysis: This study did not set up a subgroup analysis.

Sensibility analysis: Sensitivity analysis was carried out by one - by - one elimination method.

Country(ies) involved: China.

Keywords: Lung cancer · Segmentectomy · Lobectomy · wedge resection ·Survival · Bayesian analysis.

Contributions of each author:

Author 1 - Yucong Shi - designed and performed the study, and wrote the manuscript.

Author 2 - Ziqi Chen - designed and performed the study, and wrote the manuscript.

Author 3 - Sizhi Wu - designed and performed the study, and wrote the manuscript.

Author 4 - Yiwen Lv - participated in the data statistics.

Author 5 - Pei Liu - participated in the data statistics.

Author 6 - Huachong Xu - participated in the data statistics.

Author 7 - Li Deng - designed and performed the study, and revised the manuscript.

Author 8 - Xiaoyin Chen - designed and performed the study, and revised the manuscript.