

# INPLASY

## Update on Clinical Outcomes and Neurological Complications of Endoscopic Discectomy Using the Transforaminal Approach or Interlaminar Approach for Treatment of Lumbar Disc Herniation: Systematic Review

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Westphal, W.

### Corresponding author:

Wagner Westphal

wagner.westphal@hotmail.com

### Author Affiliation:

Hospital Sagrado Coração de Jesus.

### ADMINISTRATIVE INFORMATION

**Support** - Own financing.

**Review Stage at time of this submission** - Data extraction.

**Conflicts of interest** - None declared.

**INPLASY registration number:** INPLASY202490116

**Amendments** - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 26 September 2024 and was last updated on 26 September 2024.

### INTRODUCTION

**Review question / Objective** Which technique produces better clinical results and fewer neurological complications, transforaminal approach or interlaminar approach?

**Condition being studied** Lumbar disc herniation.

### METHODS

**Search strategy** PUBMED; EMBASE; Web Of Science; SCOPUS e ClinicalTrials.gov.

**Participant or population** Adult patients with lumbar disc herniation treated surgically.

**Intervention** Endoscopic Discectomy Using the Transforaminal Approach.

**Comparator** Interlaminar Approach.

**Study designs to be included** Randomized Controlled Trial, Meta-analysis, Systematic Review; Coorte.

**Eligibility criteria** The identified studies underwent a rigorous selection based on the following inclusion criteria:

- Direct relevance to the topic of interest;
- Publication in indexed scientific journals;
- Study design according to selection filter;
- Conducting research on human beings;
- Availability of the full text of the article.

Studies that presented methodologies considered to be of low reliability through assessment on the PEDro scale for RCTs, and described as having a high potential risk of bias on the ROBIS scale for meta-analyses/systematic reviews and ROBINS for non-randomized studies were excluded.

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**Information sources** Electronic databases, contact with authors, trial registers, or grey literature.

**Main outcome(s)** Identification of studies  
According to the search strategy, 64 studies were found on the search platforms with the aforementioned descriptors, which were again evaluated according to duplication in the databases, their design and relevance according to the study type filters and inclusion criteria. There was a very strong correlation between the searches of the two researchers ( $k=0.904$ ). In the end, 24 studies remained; after individual reading and in accordance with the theme, 13 studies were included.

**Quality assessment / Risk of bias analysis**  
PEDro scale for RCTs, ROBIS scale for meta-analyses/systematic reviews and ROBINS for non-randomized studies.

**Strategy of data synthesis** The results will be evaluated by the reviewers, the data will be statistically treated and presented in tables and graphs.

**Subgroup analysis** Not applicable.

**Sensitivity analysis** Sensitivity analysis excluding from the meta-analysis the results of studies with high risk of bias or unclear risk of bias.

**Language restriction** There will be no language restriction.

**Country(ies) involved** Brazil.

**Keywords** Transforaminal; Interlaminar” AND “Discectomy Lumbar” AND “Endoscopic” AND “Lumbar Disc Herniation” AND “complications” AND “Outcome functional”.

**Contributions of each author**

Author 1 - Wagner Westphal - Author 1 drafted the manuscript.

Email: wagner.westphal@hotmail.com