INPLASY PROTOCOL

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The authors declare that the article content was composed in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

PED Versus MEDL for the Treatment of Lumbar Spinal Stenosis : Systemic Review and Meta-Analysis

Chen, X; Wang, ZT[2].

Review question / Objective: **To compare the efficacy and safety of percutaneous endoscopic decompression (PED) and traditional micro endoscopic decompression laminectomy (MEDL) in the treatment of lumbar spinal stenosis (LSS).**
Condition being studied: **Lumbar spinal stenosis (LSS) is a degenerative condition in which changes in the discs, ligamentum flavum, and facet joints with aging cause narrowing of the spaces around the neurovascular structures of the spine.**
Information sources: **Retrieval of PubMed, Web of Science, The Cochrane Library, Embase, Chinese journal full-text database, viper database and wanfang database by computer.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 26 April 2020 and was last updated on 26 April 2020 (registration number INPLASY202040188).

INTRODUCTION

Review question / Objective: **To compare the efficacy and safety of percutaneous endoscopic decompression (PED) and traditional micro endoscopic decompression laminectomy (MEDL) in the treatment of lumbar spinal stenosis (LSS).**

Condition being studied: **Lumbar spinal stenosis (LSS) is a degenerative condition in which changes in the discs, ligamentum**

flavum, and facet joints with aging cause narrowing of the spaces around the neurovascular structures of the spine.

METHODS

Participant or population: Patients who were clinically diagnosed with lumbar spinal stenosis and required surgical treatment, and had not received any surgical intervention before that;There is no limitation on age, sex, race or nationality.

Intervention: Percutaneous endoscopic decompression (PED).

Comparator: Micro endoscopic decompression (MEDL).

Study designs to be included: Randomized controlled trial, case-control trial.

Eligibility criteria: This meta-analysis was carried out in reference to the Cochrane Library's official collaboration.

Information sources: Retrieval of PubMed, Web of Science, The Cochrane Library, Embase, Chinese journal full-text database, viper database and wanfang database by computer.

Main outcome(s): A total of 8 references were included in this study, including 4 randomized controlled studies and 4 non-randomized controlled studies .A total of 804 patients were involved in the study, and 714 patients were obtained at the last follow-up, with a follow-up rate of 88.8%.

Quality assessment / Risk of bias analysis: The quality of 4 randomized controlled studies was evaluated according to the Cochrane collaboration network "risk of bias evaluation criteria", and the quality of 4 non-randomized case control studies was evaluated according to the Cochrane collaboration "newcastal-ottawa Scale (NOS)" evaluation criteria.

Strategy of data synthesis: This meta-analysis used the Review Manager 5.3 software provided by the Cochrane collaboration for statistical analysis.

Subgroup analysis: Different follow-up time and different disease types may be divided into different subgroups for analysis.

Sensibility analysis: The sensitivity analysis will mainly adopt the method of "literature culling one by one".

Country(ies) involved: China, South Korea, Germany.

Keywords: lumbar spinal stenosis; minimally invasive; spinal endoscopy; Discectomy ; Meta-analysis.

Contributions of each author:
Author 1 - Chen Xin - Author 1 drafted the manuscript.
Author 2 - Wang Zhongtang - The author provided statistical expertise.