

INPLASY PROTOCOL

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None declared.

The grasping test revisited: A systematic review of functional recovery in rat models of median nerve injury

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Review question / Objective: This work aims to report and summarize the course of functional recovery following crush injuries, transections and segmental resection of the rat median nerve.

Condition being studied: Peripheral nerve injuries.

Eligibility criteria: Only such studies were included which featured at least two postoperative time points at in which functional recovery was evaluated.

Main outcome(s): Functional recovery as assessed by the grasping test.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 15 July 2022 and was last updated on 15 July 2022 (registration number INPLASY202270074).

INTRODUCTION

Review question / Objective: This work aims to report and summarize the course of functional recovery following crush injuries, transections and segmental resection of the rat median nerve.

Condition being studied: Peripheral nerve injuries.

METHODS

Search strategy: We performed a comprehensive literature research by using the full-text archive PubMed and Web of

Science. We used the search terms “rat”, “median nerve” and “grasping test” and their combinations, respectively. Following title and abstract screening, the full texts of possibly eligible studies were retrieved and reviewed in regard to the predefined inclusion and exclusion criteria.

Participant or population: Rats with median nerve injury.

Intervention: Not applicable.

Comparator: Not applicable.

Study designs to be included: Original work, Reviews.

Eligibility criteria: Only such studies were included which featured at least two postoperative time points at in which functional recovery was evaluated.

Information sources: PubMed; Web of Science.

Main outcome(s): Functional recovery as assessed by the grasping test.

Quality assessment / Risk of bias analysis: Not applicable.

Strategy of data synthesis: Systematic review = qualitative synthesis.

Subgroup analysis: Subgroup analysis of identical lesions and/or reconstructive approaches.

Sensitivity analysis: Not applicable.

Language: English, German.

Country(ies) involved: German.

Keywords: Median nerve; grasping test; nerve repair; nerve crush; nerve transection; rat; animal; functional recovery; autograft; allograft.

Dissemination plans: To be published in a scientific journal. Data to be also presented at scientific meetings.

Contributions of each author:

Author 1 - Henrik Lauer.

Author 2 - Cosima Prahm.

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