

INPLASY PROTOCOL

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None declared.

Effects of kinesio taping on swallowing function of patients with stroke: a meta-analysis

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Review question / Objective: To systematically evaluated the clinical efficacy of kinesio taping on swallowing function of patients with stroke.

Condition being studied: Dysphagia is one of the most common complications after stroke, with an incidence of 50%-78%. At present, the commonly used treatment strategies for dysphagia include swallowing training, acupuncture and moxibustion, and neuromuscular electrical stimulation. Kinesio Taping (KT) is a non-invasive treatment technique widely used in patients with musculoskeletal diseases. Many clinical studies have applied Kinesio Taping (KT) in the rehabilitation of post-stroke dysfunction due to its characteristics of no restriction of movement and sustained effect. In recent years, many studies have been published on the treatment of dysphagia in stroke patients with KT and achieved certain efficacy, but there is still a lack of evidence-based medical evidence to support its clinical application.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 15 February 2022 and was last updated on 15 February 2022 (registration number INPLASY202220057).

INTRODUCTION

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stimulation. Kinesio Taping (KT) is a non-invasive treatment technique widely used in patients with musculoskeletal diseases. Many clinical studies have applied Kinesio Taping (KT) in the rehabilitation of post-stroke dysfunction due to its characteristics of no restriction of movement and sustained effect. In recent years, many studies have been published on the treatment of dysphagia in stroke patients with KT and achieved certain efficacy, but there is still a lack of evidence-based medical evidence to support its clinical application.

METHODS

Participant or population: Patients (18 years and older) diagnosed with stroke with dysphagia, regardless of gender or source of case

Intervention: The experimental group included KT combined with routine rehabilitation treatment.

Comparator: The control group was sham sticking combined with routine rehabilitation treatment or only routine rehabilitation treatment.

Study designs to be included: RCT or observational study.

Eligibility criteria: Study design: randomized controlled trial or observational study; Subjects: Patients diagnosed as stroke with dysphagia (18 years and older), without limitation on gender and source of cases; Intervention measures: the experimental group included KT combined with routine rehabilitation treatment, while the control group was sham sticking combined with routine rehabilitation treatment. There is no limit to the time and course of treatment intervention; (4) Outcome indicators: The main outcome indicators included clinical efficacy (effective rate and recovery rate), swallowing function rating Scale, depression drinking water test; Secondary outcome measures included quality of life scale for dysphagia; The sample size of

experimental group and control group was not less than 10 cases.

Information sources: From 1979 to December 2021, Related studies in the Cochrane Library, Wiley, WOS (Web of Science), Embase, MEDLINE, CNKI, VIP database, Wanfang Database and other databases. We also conducted a search of clinical trial registries and a manual search of a list of references to some of the relevant studies.

Main outcome(s): Clinical efficacy, swallowing function assessment scale, depression drinking water test.

Additional outcome(s): Quality of life scale for dysphagia.

Quality assessment / Risk of bias analysis: The included literature was assessed for methodological quality and risk of bias using the Physiotherapy Evidence Database Scale (PEDro), an 11-item Scale designed to assess the methodological quality of randomised trials. PEDro scores are assigned to 3 levels, with 6-10 as high-quality research, 4-5 as general quality research, and less than 3 as low quality research. To evaluate the overall quality of evidence only in randomized controlled studies, The certainty of evidence and the strength of recommendation are evaluated by Grading of Recommendations Assessment, Development and Evaluation [11]. The level of evidence was classified as high, medium, low, or very low in terms of study design, inaccuracy, inconsistencies, and publication bias.

Strategy of data synthesis: Stata software (version 12.0) was used for all statistical analysis. The classification variables were expressed as risk ratio (RR), and the continuous variables were expressed as standardized mean difference (SMD). At the same time, 95% confidence interval (CI) was calculated.

Subgroup analysis: Heterogeneity between studies using χ^2 squared inspection combining I squared, if $P < 0.05$ and I squared $> 50\%$, show that there exists

heterogeneity between the results, using a random effects model is analyzed, and the subgroup analysis.

Sensitivity analysis: and sensitivity analysis to explore the sources of heterogeneity. Through the funnel and Egger test to evaluate publication bias, significant P values <0.1.

Language: English and Chinese.

Country(ies) involved: China.

Keywords: Kinesio Taping; Stroke; Swallowing Function; Meta-Analysis.

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