

INPLASY PROTOCOL

To cite: Ma et al. Efficacy of conjoint fascial sheath suspension and frontalis muscle flap suspension in the correction of severe congenital blepharoptosis: a systematic review and meta – analysis. Inplasy protocol 202050046. doi: 10.37766/inplasy2020.5.0046

Received: 11 May 2020

Published: 11 May 2020

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Support: No.

Review Stage at time of this submission: The review has not yet started.

Conflicts of interest: No.

Efficacy of conjoint fascial sheath suspension and frontalis muscle flap suspension in the correction of severe congenital blepharoptosis: a systematic review and meta – analysis

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Review question / Objective: The aim of this meta – analysis is to evaluate the efficacy of conjoint fascial sheath suspension and frontalis muscle flap suspension in the correction of severe congenital blepharoptosis.

Condition being studied: Blepharoptosis is due to the shift of the upper eyelid downward, and the upper eyelid margin is lower than the normal position when the patient opens his eyes in an upright position. It is mainly caused by the hypoplasia of levator palpebrae superioris or the abnormal development or dysfunction of oculomotor nerve which innervates levator palpebrae superioris. At present, the main surgical methods for severe blepharoptosis are levator muscle shortening, frontalis muscle flap suspension and fascia sheath suspension. Now passed Meta Methods to compare the curative effect of the conjoint fascial sheath suspension and frontal muscle flap suspension in the treatment of severe blepharoptosis.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 11 May 2020 and was last updated on 11 May 2020 (registration number INPLASY202050046).

INTRODUCTION

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present, the main surgical methods for severe blepharoptosis are levator muscle shortening, frontalis muscle flap suspension and fascia sheath suspension. Now passed Meta Methods to compare the curative effect of the conjoint fascial sheath suspension and frontal muscle flap suspension in the treatment of severe blepharoptosis.

METHODS

Participant or population: Patients with congenital severe blepharoptosis.

Intervention: Conjoint fascial sheath suspension was the main intervention.

Comparator: Frontal muscle flap suspension was the comparator.

Study designs to be included: Randomized and non randomized controlled study.

Eligibility criteria: (1)the study design is a randomized and non randomized controlled study to compare the efficacy and complications of frontalis muscle flap suspension and conjoint fascial sheath suspension in the treatment of congenital severe blepharoptosis. (2) the study group was treated with conjoint fascial sheath suspension and the control group with frontal muscle flap suspension. (3) the outcome indicators were postoperative satisfaction, failure rate and complication rate.

Information sources: We independently searched 6 databases including the Wanfang Database, VIP Database, CNKI, Pubmed, Web of Science and the Cochrane Library. The randomized and non-randomized controlled trials for comparing frontalis muscle flap suspension and fascial sheath suspension in the treatment of congenital severe blepharoptosis were collected.

Main outcome(s): Postoperative satisfaction, failure rate and complication rate.

Quality assessment / Risk of bias analysis: Two retrieval evaluators independently

selected the retrieved documents according to the established criteria of inclusion and exclusion. The quality of the included documents was evaluated by using the modified Jadad scale from four aspects: random sequence generation, assignment concealment, blind method, withdrawal or loss of interview. The score was 2, 2, 2, 1, with a full score of 7 points, the score <4 for low-quality documents, the score >4 for high-quality documents.

Strategy of data synthesis: The meta-analysis of primary outcomes was performed by Review Manager 5.3 and Stata15.0. Postoperative fullness was evaluated by odds ratio (or) and 95% confidence interval (CI).The degree of intention, failure rate and complication rate were compared. I2 statistic was used to test the heterogeneity. When I2 < 50%, it is considered that there is no significant heterogeneity among the studies; when I2 > 50%, it is considered that there is significant heterogeneity among the studies. Using egger's test to evaluate publication bias, P < 0.1 was the existence of publication bias. If P < 0.05, the difference between the study group and the control group is statistically significant.

Subgroup analysis: Conjoint fascial sheath suspension was performed in the experimental group and Frontalis muscle flap suspension was performed in the control group.

Sensibility analysis: Changing inclusion criteria (especially controversial studies), eliminating low-quality studies, using different statistical methods / models to analyze the same data, etc.

Country(ies) involved: China.

Keywords: blepharoptosis; Conjoint Fascial Sheath; frontalis suspension; meta – analysis.

Contributions of each author:

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