INPLASY

Lateral Column Lengthening versus Subtalar Arthroereisis for Pes Planovalgus in Patients with Cerebral Palsy

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ADMINISTRATIVE INFORMATION

Support - No.

Review Stage at time of this submission - Data analysis.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 27 May 2024 and was last updated on 27 May 2024.

INTRODUCTION

Review question / Objective This systematic review was performed to compare outcomes between lateral column lengthening and subtalar arthroereisis for pes planovalgus in children with cerebral palsy.

Condition being studied Pes planus is a common deformity in children with cerebral palsy, and both lateral column lengthening (LCL) and subtalar arthroereisis (SA) are surgical options for treatment. To the best of our knowledge, none of the previous systematic reviews have compared clinical outcomes between LCL and SA for pes planovalgus in children with cerebral palsy.

METHODS

Participant or population Pes planovalgus in patients with cerebral palsy.

Intervention Patients underwent lateral column lengthening.

Comparator Patients underwent subtalar arthroereisis.

Study designs to be included We included studies that reported clinical outcomes following lateral column lengthening and subtalar arthroereisis in patients with cerebral palsy.

Eligibility criteria Studies published as protocols, case reports, reviews, comments, letters, and conference articles were excluded.

Information sources PubMed, EMBASE, Cochrane Library, and Google Scholar.

Main outcome(s) Radiographic measurements (talonavicular coverage angle, talo–first metatarsal angle, talocalcaneal angle, calcaneal pitch angle, talo-horizontal angle) and complications.

Quality assessment / Risk of bias analysis Methodological index for non-randomized studies (MINORS) for non-randomized studies and the

Version 2 of the Cochrane risk-of-bias tool for randomized trials (RoB 2).

Strategy of data synthesis When integrating the data from included studies, it is divided into two parts: comparative studies and all included studies. For the former, meta-analysis was performed. When pooling data from all included studies, the outcomes of interest were presented separately according to lateral column lengthening and subtalar arthroereisis.

Subgroup analysis Based on follow-up period.

Sensitivity analysis If results exhibit a high heterogeneity, the sensitivity analysis will perform.

Country(ies) involved Taiwan.

Keywords cerebral palsy; pes planovalgus; lateral column lengthening; subtalar arthroereisis.

Contributions of each author
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