

## Lateral Column Lengthening Using Expandible Cage For Pes Planovalgus In Cerebral Palsy Children

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### INTRODUCTION:

Pes planovalgus is a common deformity in ambulatory cerebral palsy children. Ankle-foot orthoses and physical therapy are the primary options for young patients with planovalgus foot deformity. Indication for surgery is when deformity is severe and foot is no longer stable, with less tolerance to orthoses, that leads to decrease in the ability of and interest in standing and ambulation.

### REPORT:

We report a case of 12 year-old patient with diplegic cerebral palsy, GMFCS II. He had moderate bilateral pes planovalgus and complaining of pain while walking.



**Surgical Technique:** Incision is made about 4cm from distal tip of lateral malleolus to proximal of the calcaneocuboid joint. After dissecting the soft tissue, periosteum covering the lateral cortex of calcaneum is exposed and the calcaneal articular surface is visualized.

Then, transverse calcaneal osteotomy is performed at neck of calcaneum, about 10-20 mm proximal to the calcaneocuboid joint. Medial cortex cut is completed using osteotome. The osteotomy site is separated using lamina spreader, until the medial longitudinal arch of the foot is corrected. Anteroposterior image intensifier confirms increased talonavicular coverage, and lateral image confirms absence of calcaneocuboid subluxation. An expandible cage is placed in the osteotomy site. Adjustment can be made by expanding the cage if more separation is needed. A short leg cast is applied in neutral position and kept for 6 weeks.



### CONCLUSION:

This method using expandible cage is easy to use, adjustment can be made by expanding the cage based on how much separation is needed, and it does not require bone graft. It is effective in the treatment of pes planovalgus deformity in ambulatory children with cerebral palsy.

### REFERENCES:

1. Muayad K, Freeman M. (2014) Pes planovalgus deformity in children with cerebral palsy: review article: Journal of Pediatric Orthopaedics B.
2. Kadhim et al. (2012) Pes planovalgus deformity surgical correction in ambulatory children with cerebral palsy: J Child Orthop.