

Challenges In Management Of Pes Planus In Cerebral Palsy Patient

¹B.Yogaraj, ¹II.Imma, ¹K.Norizan

¹Peaditric department, University Putra Malaysia

INTRODUCTION:

Foot and ankle deformities are prevalent in pediatric patients with CP, with rates reported as high as 93%. The common deformities include equines, planovalgus, and equinovarus¹

REPORT:

A 7-year-old girl with underlying spastic diplegic cerebral palsy, categorized as GMFCS level 2, is currently undergoing rehabilitation follow-up. She was referred due to bilateral hamstring and Achilles tendon contracture, as well as a right foot planovalgus deformity.

The patient had bilateral hamstring release, bilateral Vulpius procedure, right foot calcaneocuboid distraction and fusion with synthetic bone, and a plantar close wedge osteotomy of the first metatarsal bone of the right foot. Post-surgery, she was put in bilateral above-knee fiber casts for six weeks. At the six-week follow-up, clinical examination revealed restored medial arch and achievement of a plantigrade right foot, with improved Meary's angle.



Figure 1: Pre op clinical photos



Figure 2: Pre op x-ray



Figure 3: Post op x-ray

CONCLUSION:

There isn't a universally accepted treatment protocol for managing flat feet within this specific patient population. Various surgical procedures are employed for its treatment, including single calcaneal osteotomies, extra-articular arthrodesis, double calcaneal osteotomy, calcaneo-cuboid-cuneiform osteotomy, intra-articular arthrodesis, and arthroereisis⁽²⁾. The aim of treatment is to restore tarsal bone alignment and achieve a plantigrade foot for improved gait¹. Joint-preserving surgery for ambulatory patients may involve lateral column lengthening and first ray or medial cuneiform osteotomy¹. Gastrocnemius lengthening may also be necessary. Arthrodesis is preferred for non-ambulatory or severe cases¹. Further research needed to establish recurrence rates and complications of surgical procedures for planusvalgus deformity in cerebral palsy patients, aiming for standardized treatment globally².

REFERENCES:

1. Kedem, Pet al. (2015). Foot deformities in children with cerebral palsy. In *Current Opinion in Pediatrics* (Vol. 27, Issue 1, pp. 67–74). Lippincott Williams and Wilkins.
2. Macinnes, P et al (2022). Surgical management of pes planus in children with cerebral palsy: A systematic review. In *Journal of Children's Orthopaedics* (Vol. 16, Issue 5, pp. 333–346). British Editorial Society of Bone and Joint Surgery.