External Fixator Assisted Treatment of Recurrent Pediatric Talipes Equinovarus Deformity: A Case Report.

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Introduction

Both conservative and surgical interventions can be effective in the treatment of pediatric Talipes Equinovarus deformity, when performed and timed appropriately.

Rigid, recurrent deformities in the adolescent population do not respond well to casting alone and require surgical intervention.

Methods

A case study is presented of an 11-year-old male who required external fixator assisted surgical intervention for correction of a rigid, non-reducible, recurrent Talipes Equinovarus deformity.

Pre-operative images









Pre-operative ring sizing







Results

An 11-year-old male presented as a second opinion for a recurrent clubfoot deformity. The patient was thoroughly evaluated and it was deemed that osteotomies of the proximal mid-foot region would be needed secondary to the rigid and non-reducible deformity.

On 6/27/2016, the patient underwent de-rotational osteotomies of his distal calcaneus and talus in an effort to reduce the extremely supinated positioning of his right forefoot. A dynamic external fixator was applied for gradual correction. Intraoperatively the patient's anterior compartment extensor tendons required z-lengthening.

The patient's parents were given a printed schedule for deformity correction in which they adjusted the struts of the external fixator daily, and the patient followed weekly to confirm the progress of the correction.

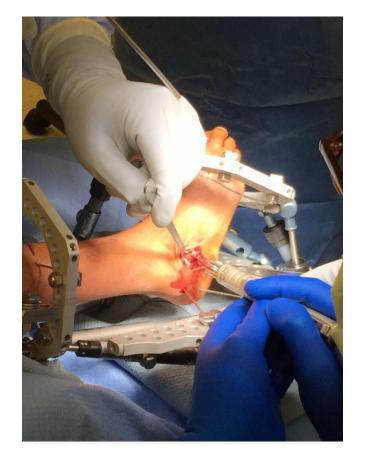
The external fixator was removed at 6 weeks after a rectus position was achieved, and a walking cast was applied. The patient continued following up uneventfully with the cast eventually being removed after another 6 weeks.

The patient has been doing well post-operatively without complication and has continued following up to date along with surgical planning of the left lower extremity.

Intra-operative images

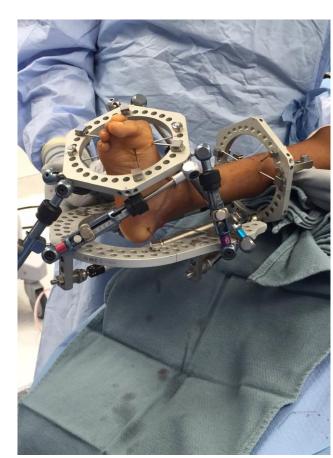












Conclusion

When faced with a recurrent club foot deformity in the young adolescent patient, gradual correction is a viable option for lower extremity reconstruction. The patients parents/guardians should be thoroughly educated on how to perform strut adjustments to ensure that the program is being followed as prescribed.