

Combine Resection of Talocalcaneal Tarsal Coalition and Calcaneal Lengthening Osteotomy. Short-to-Intermediate Term Results

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Abstract : Background: The optimal algorithm for the management of symptomatic tarsal coalition is still under discussion in pediatric literature. It's debatable what surgical steps are essential to achieve the best outcome. Method: The investigators retrospectively reviewed the records of twelve patients with symptomatic tarsal coalition that were treated operatively between 2017 and 2019. Only painful flat feet were operated. Two patients were excluded from the study due to lack of sufficient follow-up. Ten of eleven feet were treated with the combination of calcaneal lengthening osteotomy (CLO) and resection of coalition (RC). Only one foot was operated with CLO alone. In half of our patients, Achilles lengthening was performed. For two children, medial plication was added. Short leg cast was applied to all children for 6-8 weeks, and soft shoe insoles for medial arch support were prescribed after. Demographic, clinical, and radiographic records were reviewed. The outcome was evaluated using American Orthopedic Foot and Ankle Society (AOFAS) Ankle Hindfoot Score. Results: There were seven boys and three girls. The mean age at the time of surgery was 13.9 (range 12 to 17) years, and the mean follow-up was 18 (range 8 to 34) months. The early complications included one superficial wound infection and dehiscence. Late complication includes two children with residual forefoot supination. None of our patients required additional operations during the follow-up period. All feet achieved complete deformity correction or dramatic improvement. In the last follow-up, seven feet were painless, and four children had some mild pain after intensive activities. All feet achieved excellent and good scoring on AOFAS. Conclusions: Many patients with talocalcaneal coalition also have rigid or stiff, painful, flat feet. For these patients, the resection of coalition with concomitant CLO can be safely recommended.

Keywords : Tarsal coalition, calcaneal lengthening osteotomy., flat foot, coalition resection

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