Comparative results of percutaneous Achilles tenotomy to combined open Achilles tenotomy with posterior capsulotomy in the correction of equinus deformity in congenital talipes equinovarus

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Abstract:

Purpose: The purpose of this study is to compare the efficacy of percutaneous Achilles tenotomy (AT) to combined open Achilles tenotomy and posterior capsulotomy (PC+AT) in the correction of residual equinus deformity in congenital talipes equinovarus after Ponseti serial casting in both idiopathic and non-idiopathic clubfeet. Methods: The authors retrospectively reviewed 591 patients treated for congenital talipes equinovarus between January 1, 2001 and January 1, 2011. Available medical and operative records were reviewed for basic demographic data as well as ankle dorsiflexion pre-operatively, postoperatively and at latest follow up. Results: A total of 167 children with 260 discrete clubfeet that met our inclusion criteria were identified. Of them, 189/260 clubfeet (72.7%) were idiopathic and 71/260 clubfeet (27.3%) were non-idiopathic with a mean total follow up of 4.8±2.4 years (minimum follow-up of two years). At latest follow up, there was no statistically significant difference in the mean ankle dorsiflexion (p=0.333) or recurrence rate (p=0.545) between PC+AT and AT groups in both idiopathic and non-idiopathic clubfeet. Conclusion: In our series, the addition of posterior capsulotomy to Achilles tenotomy did not improve the mean dorsiflexion at latest follow up or decrease the rate of recurrence of equinus deformity in both idiopathic and non-idiopathic clubfeet. It is therefore advisable that percutaneous Achilles tenotomy alone be used in the correction of equinus deformity in both idiopathic and non-idiopathic congenital talipes equinovarus after successful Ponseti serial casting.

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