

Abstract

Background/Objectives: Nail alterations are commonly seen in cases of idiopathic clubfoot and may cause parental concern. The nature of and whether these changes are congenital or develop secondary to treatment has been poorly investigated. The aim of this study was to evaluate toenail morphology in clubfoot patients at presentation, to re-evaluate them during the course of treatment for the clubfoot, and to analyze findings in the light of the few literature reports for healthy children of the same age.

Methods: Thirty infants (21 males and 9 females) with idiopathic clubfoot were prospectively enrolled at the Anna Meyer Children's University Hospital. Nails of affected and non-affected feet were evaluated by a team of pediatric dermatologists at presentation and re-evaluated once per patient during the bracing period of Ponseti treatment.

Results: Toenails of affected (47) and non-affected (13) feet were abnormal at presentation in 43.3% of patients, in both clubfeet (40.4%) and non-affected feet (38.5%), but most changes were physiologic or transitory alterations, commonly found in healthy children, with nail concavity (koilonychia) being the most common finding (29.7%). Changes were not related to clubfoot severity or laterality ($P > .05$). In most (76.9%) unilateral cases, there was concordance of nail changes between clubfoot and non-affected foot. At re-evaluation (follow-up time 410 ± 207 days), nail problems were more frequent (53.3%); ingrown toenail was the most common (21.6%).

Conclusions: The presence of nail alterations seems not to be caused by clubfoot pathology and could be related to unfavorable local condition in the brace.

KEYWORDS

nail disorders, neonatal