

## **Congenital Talipes Equinovarus in Vanuatu**

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## Abstract

Background: Congenital Talipes Equinovarus (Clubfoot) is a foot deformity often managed using the Ponseti Method and surgery. Ponseti is a global 'clubfoot treatment' standard for treating severe foot deformity. Factors such as the severity of deformity, number of casts applied, whether the foot underwent surgery and whether brace compliance protocol was adhered are directly related to whether a child can walk normally and pain-free. Aim: This study aims to describe how the Ponseti method has been issued in the management of children treated with Clubfoot at Vila Central Hospital

Methods: We reviewed all children with congenital clubfoot treated with the Ponseti method at the Physiotherapy clinic over a 10-year period, from January 1st 2011 to December 31st 2021. 111 cases of children born with clubfoot were analysed, 81 males and 30 females. Information about their age, gender, initial Pirani score, number of feet treated (unilateral or bilateral), number children who had casting done with or without surgery and compliance with bracing were investigated.

Results: There were 111 clubfoot cases (171 feet) in total that underwent the Ponseti method during the study period. Males (73%) were more affected than females (27%). 86 children born with clubfoot presented before 3 months of age, most of whom (94%) came with severe foot deformity. With the Ponseti method, 16% had serial casting only and went straight to bracing while 80% had casting and tenotomy and bracing. Despite early management using the Ponseti method, 19 children had foot relapse by the age of 9 months.

Conclusion: We found that males were more affected by Congenital Talipes Equinovarus than females. We also found that brace compliance and the lack of orthosis had more effect on relapse rate for children with clubfoot under 2 years than did early presentation and high levels of severity.