

Treatment of myelodysplastic feet by the Ponseti method: A 20-year cohort study

Elizabeth de Alvarenga Borges da Fonsêca¹, Monica Paschoal Nogueira¹

1. Instituto de Assistência Médica ao Servidor Público Estadual - IAMSPE, São Paulo, SP, Brazil

Correspondence: Elizabeth de Alvarenga Borges da Fonsêca **Email:** fonseca.elizabeth@hotmail.com

Introduction: Congenital clubfoot (CCF) is present in about 30%-50% of patients with meningomyelocele (MMC), and its treatment aims to minimize the impact on mobility and quality of life of these children. Treatment options include multiple surgical procedures. The hypothesis is that the Ponseti method in patients with MMC and CCF yields results similar to those in patients with idiopathic CCF.

Methods: This is a retrospective observational cohort study from 2004 to 2024 comparing patients with CCF and MMC who underwent treatment with the Ponseti method with patients with idiopathic CCF who underwent correction with this method.

Results: We evaluated two groups: the first with 50 patients (83 feet) with CCF and MMC; and the second with 170 patients (293 feet) with idiopathic CCF. There was no statistically significant difference between the two groups in initial Pirani score (p-value: 0.471), final Pirani score (p-value: 0.968), number of casts performed (p-value: 0.976), and number of patients with recurrences (p-value: 0.644). Initial correction was achieved in 98% of MMC patients, and this correction remained in 86%. Age at treatment initiation, follow-up time (3.1 years for patients with MMC, and 4.9 years for idiopathic patients) and the number of complications (44% compared to 8% in idiopathic patients) were the variables that presented a statistical difference (p-value < 0.05). Regarding subgroup analysis of high and low lumbar MMC, initial Pirani score, and bilaterality, these variables showed statistical differences.

Conclusion: The Ponseti method in the treatment of MMC and CCF is effective, providing initial correction of 98% and final correction (at the end of the 3.1-year follow-up) of 82%, with recurrences in 44% of cases, but with no difference compared with idiopathic patients. However, MMC patients had a 44% complication rate, compared to 8% in idiopathic patients, with a 4.9-year follow-up.

Keywords: Congenital clubfoot; Conservative treatment; Meningomyelocele.

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