



Service Priorities and Programmes
Electronic Presentations

Convention ID: 838

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From crooked to walk - consolidating ward based modified Ponseti clubfoot treatment program

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Keywords:

Ponseti method
clubfoot
serial casting

Introduction

Ponseti clubfoot treatment significantly revolutionized clubfoot treatment from operative to serial casting correction with minimal invasive ward procedures. A modified protocol was implemented in PWH since 2004. This included using of synthetic cast, a foam casting platform and nurse case manager who streamlined the whole treatment process. This cast would be changed weekly for a progressive correction of the deformity. Percutaneous Tendo Achilles elongation (PETA) was performed if necessary in ward followed by a final cast for 3-4 weeks. On completion of the initial serial casting treatment, night splinting, special shoes and outpatient physiotherapy program would be commenced. This program achieved optimal clinical outcomes and was cost-effective.

Objectives

To review the outcome of a ward based modified Ponseti clubfoot treatment process and identify areas of improvements.

Methodology

Medical records of clubfoot patients whom underwent this program from 2006 to 2011 were reviewed. The clubfoot's functional outcome and parental satisfaction were assessed by clinical assessments and self-designed questionnaires.

Result

From 2006 to 2011, we treated 47 feet in 29 children. There were 21 boys and 8 girls. Of these 18 (62%) had bilateral, 11(38%) had unilateral involvement. 7(24%) children were associated with other congenital problems including arthrogypsis, hips and spinal problems. The mean age of first cast application was at 10 days (ranged from 1 to 54 days). There was an average of 3-4 cast changed. 24(83%) feet required PETA, amongst these, 2 required second PETA. Only 2 (7%) children required extensive soft-tissue release surgery within these 6 years. Therefore, this method had

dramatically reduced hospital cost by decreasing magnitude number of major surgeries. There were also less complications. All the children achieved plantigrade and pain-free walking. 25(86%) respondent parents were satisfied with this modified protocol (very satisfied 72%, satisfied 28%).