

ASSESSMENT OF TREATMENT OUTCOMES OF CONGENITAL FIBULAR HEMIMELIA: TO PRESERVE OR TO AMPUTATE?

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Introduction: Congenital fibular hemimelia (CFH) is a postaxial disorder characterized by hypoplasia or absence of the fibula with variable severity and a broad spectrum of other limb anomalies. Reports on treatment, complications and outcomes show great variation. We describe our experience with management of CFH patients and studied the outcomes of both non surgically or surgically treated patients via either limb preservation methods, or amputation of the limb.

Methodology: This retrospective study identified 14 patients who were treated and followed up a minimum of 24 months between 2000-2019. Patients clinical and radiographic features was used to classify severity of the CFH. The type of operation and complications if any, were identified. The Short Musculoskeletal Functional Assessment (SMFA) questionnaire was utilized to assess the dysfunction and bother index, and pain scores were recorded.

Discussion: The average duration of follow up was 9.26 years (3.07 – 19.35years). Twelve patients were managed surgically in which 4 patients underwent limb amputation and 8 patients limb preserving procedures. The amputation group had lower total of procedures (mean=2.75). Although the limb preserving group had severe initial limb length discrepancy (LLD) (mean: 5cm), were subjected to multiple surgeries (mean=7.63) and associated with complications such pin tract infection and LLD recurrence, it resulted with improvement LLD (mean 3.5cm). All but one patient needed orthotics assistance post operatively. The SMFA and pain scores were better the nonoperative group compared to the operative group, and in the amputation group compared to limb preserving group and is influenced by presence of other limb anomalies. However, the results were not statistically significant, and patients leads a comparable quality of life from healthy patient populations.

Conclusion: Both groups of patients who were treated operatively via limb preserving procedures or limb amputation have comparable outcome despite multiple surgeries and more complications in the limb preserving group.