

Ilizarov Complex Foot Deformity Correction a Long Term Follow up

Aim: Ilizarov Method is a known tool in the correction of complex feet. Functional outcome and mobility of the ankle and subtalar joints has been a concern. We report results of long term follow up of Ilizarov frame correction for complex foot.

Methods: A highly constrained Ilizarov frame was used to correct 55 deformed feet in 41 patients. 27 were males. Mean age at operation was 11.3 ± 6.4 years. The pre-operative diagnosis included; relapsed and neglected idiopathic congenital talipes equino varus, paralytic feet, rocker bottom feet, deformed feet associated with syndromes, fibular and tibial hemiamelias, and post trauma and bun deformities. 39 feet had previous operations average 1.9 operations per foot.

Single tibial ring fixation was used in 49 cases. 5 cases were treated by distraction osteotomies and 50 by soft tissue distraction. 9 cases had additional surgical procedure. Clinical, functional and radiographic evaluation was performed. Results were graded according to Ognesyanyan et al., Classification. Functionally; mobility, walking distance, coping with peers, one leg stance and hopping were evaluated.

Results: Mean follow up was 11.3 ± 3.5 years. The mean fixation time was 2.9 ± 1.1 months. All feet were initially corrected except two (frames was removed upon the request of parents and patient). At last follow up 41 (74.5%) had good results, 6 (10.9%) had satisfactory results and 8 (14.6%) had unsatisfactory results. There has been an increase in mobility, full walking distance, one leg stance, hopping and coping with peers. The most common complication was pin track infection, there were no major complications, and no complications related to single tibial ring fixation.

Conclusion: Ilizarov fixator is an effective tool for correction of deformed feet. An increase in function can be expected. There is a significant increase in most of functions (increase in mobility, full walking distance, one leg stance, hopping and coping with peers) with Ilizarov complex foot correction.