

التحسين الوظيفي التفاضلي لتشوهات الأطراف السفلية بعد التصحيح بواسطة إيلزاروف.

Differential Functional Improvement of Lower Limb Deformities Following Ilizarov Correction

Background: Feet and lower limb deformities compromise function of children to meet their growing abilities and peer demands. Ilizarov is a known tool in the correction of lower limb deformities.

Purpose: to evaluate the functional outcome of Ilizarov correction of lower limb deformities, and to compare the functional outcome of correction of feet deformity versus other lower limb segments deformity.

Subjects and Methods: 94 Ilizarov corrections of lower limb deformed segments (in 63 patients) were performed, of them 43 were feet, 33 were tibial and 18 were femoral deformities. Etiology of deformity was congenital in 72, acquired in 18, and developmental in 4. Functional ability of walking distance, cope with peers, single leg stance, hopping on affected leg, and climbing stairs before and after deformity correction were assessed.

Results: Mean follow up was 55.1 ± 30.9 months, mean age at time of operation was 11.1 ± 5.3 . At last follow up the corrected deformities of lower limb had a significant increase to full walking distance from 37 to 76 ($p=0.000$). The single stance on the affected extremity increased from 30 to 78 ($p=0.000$). The hopping on affected limb increased from 18 to 41 ($p= 0.000$) and climbing stairs increased from 79 to 94 ($p=0.000$). Coping with peers increased from 40 to 68 ($p=0.000$).

Although disability before correction was significantly more pronounced among feet deformities as regards single stance ($p=0.001$) and hopping on one leg ($p=0.023$). Post correction the improvement was significantly higher in coping with peers ($p=0.034$), single stance ($p=0.000$), and hoping ($p=0.000$) among corrected feet compared to other corrected lower limb deformities.

Conclusion: Deformity of feet is significantly more disabling functionally than other lower limb deformities. Ilizarov foot correction is significantly more functionally rewarding than Ilizarov correction of other lower limb deformities.