Combined triple arthrodesis and soft tissue procedures in management of rigid cavus foot in adults

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Abstract:

Type of study: prospective study. Objective: Demonstration the role of combined bony procedures using triple arthrodesis and soft tissue procedures in correction of cavus foot deformity in adults. Background: Rigid cavus deformity is a complex foot deformity which has different forms and results from different aetiologies. Triple arthrodesis is considered as a golden standard for treatment of such deformities. Combined bony and soft tissue procedures are needed for correction of deformity. Tendon transfer is important to restore the muscle balance around the foot. Patients and Methods: Between 2013 – 2015 fifteen feet with rigid cavus deformity were corrected surgically with Ryerson's triple arthrodesis (five feet) or Lambrinudi triple arthrodesis (10 feet) combined with tibialis posterior tendon or long toes flexor tendons transfer to the dorsum of the foot. Follow up period ranged from 20 to 47 months (mean 32.17 ± 7.62). All patients were assessed clinically and radiologically for determination of the amount of correction. The outcome was graded according to criteria of Angus and Cowell. Results: the outcome was good in two feet, fair in eleven feet and poor in two feet. The correction in the hindfoot alignment and in the range of ankle joint motion was significant. The correction in the radiological parameter was statistically insignificant. Conclusions: Successful treatment of rigid cavus foot deformity requires comprehensive understanding of the nature of the deformity and its pathology. Adding tendon transfer to the corrective bony procedure is mandatory to restore the muscle balance around the foot and to prevent the recurrence.

Keywords:

adult cavus foot, triple arthrodesis, cavus foot, lambrinudi

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