Hallux Rigidus: Surgical Treatment

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Summary: Degenerative arthritis of the hallux metatarsophalangeal (MTP) joint can be treated in a variety of ways depending on the severity of the disease. We show the results of the combination of a distal first metatarsal osteotomy with a proximal phalanx osteotomy for type I and II.

Background: Degenerative arthritis of the hallux metatarsophalangeal (MTP) joint can be treated in a variety of ways depending on the severity of the disease. The purpose of this investigation was to evaluate the results of the combination of a distal first metatarsal osteotomy (Modified Green-Watermann procedure) with a proximal phalanx osteotomy (Moberg procedure) for Hallux Rigidus type I and II that underwent surgical treatment in our institution.

Methods: Thirty three (33) feet in 29 patients were included in the study with an average age of 40.5 +/- 10.2 years. The average follow-up was 2.5 years. Patient charts and radiographs were reviewed to determine preoperative patient characteristics and clinical-radiographic stage. Subjective evaluation was based on American Orthopaedic Foot and Ankle Surgery hallux metatarsophalangeal-interphalangeal 100-point scale. A pre and postoperative objective physical examination was performed. Radiographic analysis included standing A-P and lateral views. Comparisons were made between preoperative and postoperative values using appropriate statistical analysis.

Results: This combination of procedures provided subjective patient satisfaction. There was significant improvement in dorsiflexion and total motion. All patients were satisfied with the procedure; and AOFAS Hallux Rating Score raised from 49.1 points preoperatively, to 89.2 +/-6.9 points (p < 0.001). Average improvement for dorsiflexion was 20.3 degrees, from 14.5 degrees preoperatively to 34.8 degrees (p < 0.001). No patients progressed to fusion during the follow-up.

Conclusions: This therapeutic, prospective study, showed good results during the short term follow-up of 2.5 years.

Key Words: Hallux rigidus- Green Watermann-Moberg.