Non-restricted weight-bearing after modified Lapidus arthrodesis
Manuel Pellegrini, MD, Giovanni Carcuro, MD, Natalio Cuchacovic, Gerardo Muñoz, MD, Marcelo Somarriva, MD

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Introduction/Purpose: Modified lapidus arthrodesis is performed in the treatment of different pathologies, including hallux valgus and osteoarthritis of the first cuneo-metatarsal joint. Complications of this procedure include delayed union and non-union, reported to be between 5 to 20%. To prevent them, prolonged foot unloading and rigid fixation methods have been proposed. We sought to investigate our clinical results and complications in patients operated on with a modified Lapidus arthrodesis and immediate weight bearing in a rigid post-operative shoe.

Methods: After IRB approval, we conducted a retrospective patient chart review in a single center. Dedicated foot and ankle orthopaedic surgeons performed all procedures. Patients were included if they were older than 18 years, had a minimum follow up of one year and agreed to participate in the study. Patients with neuropathy, revision arthrodesis or those with concomitant midfoot/hindfoot procedures were excluded. All patients were operated on with an inter-articular lag screw and a locking neutralization plate. Patients were allowed to weight bear without restriction in a rigid post-operative shoe from postoperative day one. An independent musculoskeletal radiologist evaluated bone consolidation of the arthrodesis in x-rays or CT scan, when available.

Results: Fifteen patients (18 feet) with an average age of 47 years (15-66) met inclusion criteria. All patients were female. Mean follow up was 19 months (12-24). Surgical indications were: hallux valgus in 14 cases and cuneo-metatarsal osteoarthritis in one case. Consolidation rate was 94% (14/15). Average time for radiological consolidation was 11 weeks (7-27). One patient (6%) developed non-union and required a revision arthrodesis with bone grafting. No loss of radiological correction or malalignment of the first ray was observed at last follow-up.

Conclusion: Our results suggest that modified lapidus arthrodesis with rigid fixation methods and non restricted weight bearing is a safe and effective alternative to manage first ray pathology. This approach may not increase non-union rates or affect the reduction obtained.

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