SURGICAL TREATMENT OF JONES FRACTURES IN ATHLETES: LONG-TERM FOLLOW-UP AND COMPUTERIZED PEDOBAROGRAPHIC ANALYSIS
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INTRODUCTION: Nonsurgical treatment of Jones fractures has high rates of delayed union, nonunion, and refracture so the internal fixation has become the treatment of choice in athletes. The purpose of this study was (1) to review the long-term clinical results of intramedullary malleolar screw fixation of Jones fractures and (2) to perform evaluation of the operated foot by computerized pedobarographic analysis. METHODS: 20 patients (1 female and 19 male) with Jones fractures fixed with intramedullary malleolar screws were evaluated by chart review, review of radiographs, physical examination and interview. Functional outcome was assessed by American Orthopaedic Foot and Ankle Society (AOFAS) Midfoot Score. Static and dynamic maximum vertical force and peak plantar pressures were evaluated using a computerized pedobarograph. RESULTS: Mean follow-up from surgery to interview was 8.1 years. Clinical healing was 95%, and there has been one refracture (5%) that healed on conservative treatment. Average AOFAS Midfoot Score was 94.6. During the computerized pedobarographic evaluations, 17 patients (90%) presented with varus of the metatarsus and the midfoot, in 3 cases only on the injured side and in 14 cases bilaterally. 1 patient presented with the midfoot varus only, and 2 patients presented with normal plantigrade foot. CONCLUSION: The intramedullary malleolar screws can yield reliable and effective healing as evidenced by clinical and functional assessment of Jones fractures in athletes. Varus of the metatarsus and the midfoot are predisposing factors for Jones fractures in population of athletes, and all were recommended to wear orthoses until their competitive careers were completed.