Low Profile Medial Locking plate augmentation Lapidus Arthrodesis with an early weight bearing protocol: Clinical and Radiographic Analysis

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My disclosure is listed in the Final AOFAS Program Book.
I have a potential conflict with this presentation due to:

Consultant Arthrex

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Consultant Arthrex
Introduction

- Lapidus powerful procedure
- Many fixation techniques described
- Plating constructs improved stability as compared to screws only
- Results of surgical construct utilizing a plantar to dorsal lag screw fixation coupled with a low profile medial locking plate with early weight bearing protocol is described
Methods

- 88 consecutive patients
- 17 of 88 patients revision hallux valgus procedures
- 2 surgeon series
- Age, sex, follow-up, time to weight bearing, radiographic fusion time, pre-operative / post-operative intermetatarsal (IM) angle, hardware removal, pre-operative / post-operative AOFAS midfoot scores, associated procedures analyzed
Surgical Technique

- Modified McBride soft tissue release
- Preparation of 1st MTC joint
- Dorsal to plantar 4.0 or 4.5 mm lag screw
- Dorsomedial low profile locking plate
- Soft tissue strapping wrap
- CAM walker boot
- Weight bearing at first followup visit or when wound healed
Additional procedures

- Bone marrow aspirate 66 patients (surgeon JC)
- Calcaneal autograft 22 patients (surgeon AV)
- Lesser metatarsal osteotomy 51 procedures
- Duvires condylectomy 19 procedures
- Chevron osteotomy 4 patients
- Akin osteotomy 10 patients
- Tailors bunion 4 patients
Results

- Mean f/u 16.7 months
- Radiographic fusion average 51 days
- Weight bearing at average 10.9 days
- 85 of 88 patients radiographic union (2 of 3 nonunion required additional surgery)
- AOFAS midfoot ave pre 54.48 to post 88.24
- 15 patients requiring removal of hardware
- 2 patients symptomatic hallux varus (1 of which required additional surgery)
- 6 patients recurrant hallux valgus
Results

- Medial locking plate fixation with plantar to dorsal lag screw fixation for Lapidus arthrodesis allows early weight bearing with acceptable outcome and complication rates.
References