the relatively mobile first metatarsal over the relatively immobile than movement by the sesamoids (10). In essence, repair of the be a direct result of the medial migration of the first metatarsal rather than movement by the sesamoids (10). In essence, repair of the first metatarsal cuneiform joint and fusion of the base of the first metatarsal to the base of the second metatarsal (3). Although originally introduced by Albrecht in 1911 (1) and further modified Lapidus surgical technique produces the necessary modified Lapidus arthrodesis using a locking plate without a lateral release. Proximal phalangeal resection included first ray instability, hypermobility, metatarsal primus valve, and hallux abducto valgus.

The following data was extracted for each patient: age, body mass index (BMI), sex, nicotine use, and presence of diabetes. Fixation technique and additional surgical technique information such as bone graft utilization and adjunctive procedures.

Radiographic values of IM 1-2, Maury’s angle, and hallux sesamoid position were assessed postoperatively.

Surgical procedure

A linear incision measuring 6 cm was made at the dorsomedial aspect of the first metatarsocuneiform joint (MCJ). A triplane correction was achieved. At this time, depending on the hardware utilized three 4.0-

Postoperative management

Postoperatively, weight bearing with a CAM (controlled ankle motion) boot was permitted as tolerated by each individual patient. The patients were allowed to ambulate in the CAM boot until evidence of radiographic union was noted and no complications were present. When radiographic union was achieved, the patient transitioned to normal shoe gear.

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Discussion

Traditionally, the lateral release of soft-tissue structures at the first metatarsophalangeal joint involves the adductor hallucis tendon, lateral capsule, transverse sesamoid ligament, and fibular sesamoid metatarsal ligament. Advocates of the lateral release argue that in doing so, the lateral deforming forces are reduced, thus improving the realignment of the first MTP joint.

Reach et al in 1994 demonstrated through their randomized study that moderate hallux valgus deformities did not require a lateral release procedure as the mean correction of IM 1-2 angles was similar in the control and trial groups (11). Likewise, Lapidus conducted a prospective study with 86 patients who underwent a distal chevron osteotomy with and without the lateral soft-tissue release. Patients without a lateral release had a better first MTP range of motion, no complications of digital neuritis, and fewer post-operative reduction in the IM 1-2 and HAV angles (14).

To our knowledge, no study has been developed to assess postoperative sesamoid position after surgical correction to moderate to severe HAV deformity without lateral release. In addition, the literature is replete with case series such as digital neuritis and AVN of the metatarsal head are minimal. Moreover, according to Moore et al, the risk for AVN can reach up to 40% with a combination of chevron osteotomy and lateral release (16).

In preserving the lateral soft-tissue structures and the joint capsule of the first MTP, we allow for the tissues to adapt to the surgical corrections, which is established primarily at the first metatarsocuneiform joint. The sesamoid correction can be established with the appropriate frontal plane alignment and be maintained throughout the postoperative period.

Reference


