

CLINICAL HISTORY: 31-year-old male with right foot pain. Two prior ankle surgeries in 2004 and 2005 when in the navy.

TECHNIQUE: Short-axis dual-echo, inversion recovery, long-axis T1 and sagittal T1 and inversion recovery images of the right forefoot were performed. These images included edema-sensitive STIR images in all three imaging planes, but there are no previous studies available for comparison.

FINDINGS: There is a complete dorsal dislocation of the second digit with tearing of the plantar plate, an effusion, marked capsulitis, with bone marrow edema at the second digit and edema along the distorted collateral ligaments. Moderate edema at the second metatarsal head is identified without a fracture line or specific findings of a Freiberg infraction.

The third through fifth lesser MPJs demonstrate no plantar plate defect, Freiberg infraction, or evidence of pre-dislocation phenomenon. Moderate edema propagates along the length of the second metatarsal. Mild hallux valgus.

No sesamoid fracture, marrow edema, or volume loss to suggest osteonecrosis. Normal intersesamoid ligament, first MPJ plantar plate, medial and lateral capsular ligaments, EHL and FHL tendons.

The plantar intrinsic foot muscles, plantar aponeurosis, extensor and flexor tendons are intact. No divergence of Lisfranc joint or tearing of Lisfranc ligament. No interdigital Morton neuroma is observed at any web space.

Callous formation is noted plantar to the fifth MPJ without an adventitial bursal fluid collection.

IMPRESSION (MRI OF THE RIGHT FOREFOOT):

A complete dorsal dislocation with over-riding of the second digit with respect to the second metatarsal is associated with bone marrow edema that is greater at the base of the second digit and tearing of the plantar plate. Also noted is an effusion with synovitis, chondromalacia and sprains of the collateral ligaments, the joint capsule and other supporting structures. No flattening of the metatarsal head to suggest a Freiberg infraction.

The other lesser MPJs demonstrate no evidence of a dislocation or pre-dislocation phenomenon.

No tearing of the extensor or flexor tendons.

No interdigital masses.