Painful Os Peroneum Syndrome (POPS)

A 62-year-old man with chronic lateral foot pain presented with acutely worsening pain and swelling at the base of the fifth metatarsal after feeling a popping sensation while walking down the stairs.

A lateral foot radiograph (Figure A) demonstrates an os peroneum (OP) (asterisks in A) with subtle areas of mineralization in the region of the inframalleolar peroneus longus tendon (arrows in A). Sagittal T1- (Figure B), sagittal fat-saturated T2- (Figure C), and coronal fat-saturated T2-weighted images (Figure D) demonstrate T1 hypointensity and T2 hyperintensity within the OP (asterisks in B, C) and a partial, intrasubstance tear of peroneus longus (arrows in D).

The OP is located in the substance of the peroneus longus tendon at the level of the calcaneocuboid joint and is ossified in approximately 20% of patients. Patients with painful os peroneum syndrome (POPS) present with plantar/lateral foot pain, localized along the course of the peroneus longus. Pathology may involve the OP (fracture or diastasis of multipartite OP), the peroneus longus tendon (tenosynovitis or tendon tear), or a large peroneal tubercle, which entraps the peroneus longus or OP during motion.

Initial radiographs may demonstrate fragmentation, fracture or proximal retraction of the OP. Further evaluation with MR is often performed, which may demonstrate marrow edema within the OP (with or without a discrete fracture line). Additional findings often include tendinosis, tenosynovitis, or tearing of the peroneus longus tendon.

Treatment for POPS begins with conservative management and may progress to surgical excision of the OP. Repair, debridement or tenodesis of the peroneus longus tendon may also be required.

REFERENCES