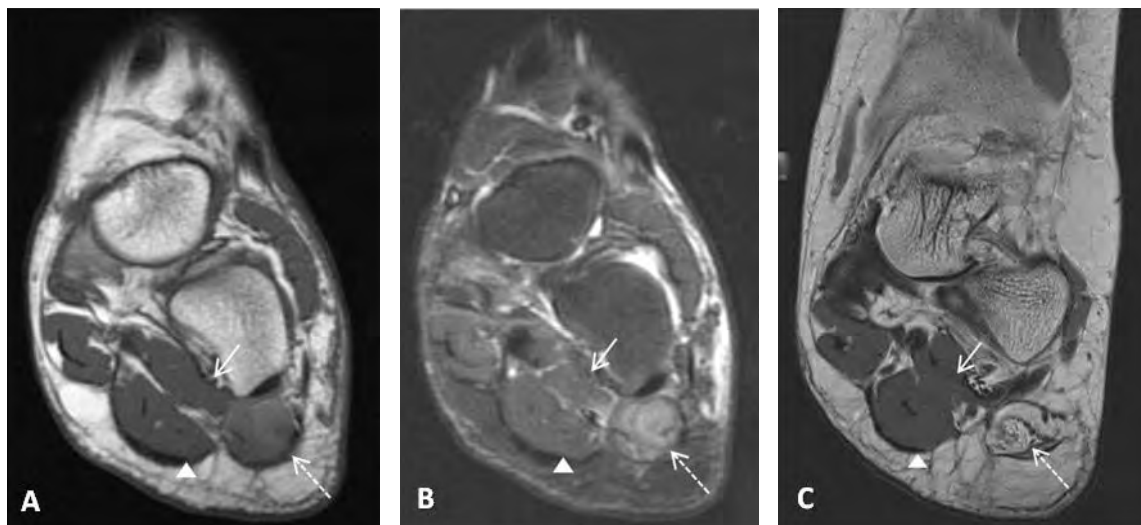


JAOCR at the Viewbox

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Baxter Neuropathy.

Coronal T1-weighted MR image (A) of the hindfoot in a middle-aged man depicts the abductor digiti quinti muscle (dashed arrow) in cross section, which demonstrates asymmetric muscle edema on the coronal FS PD-weighted image (B). As is typical with all early muscle denervation, early Baxter neuropathy presents with isolated edema without loss of muscle bulk or fatty infiltration. Late muscle denervation, more commonly seen clinically, appears as complete loss of muscle bulk and fatty infiltration of the abductor digiti quinti muscle and is best demonstrated on a coronal T1 sequence (C), as in this follow-up case. Although radiographs may show associated structural abnormalities, including pes planus, calcaneal spurring, and plantar fasciitis, MRI demonstrates the characteristic imaging finding, isolated denervation of the abductor digiti quinti muscle, associated with Baxter Neuropathy.

Baxter neuropathy results from compression of the inferior calcaneal nerve. Originating from the lateral plantar nerve, the inferior calcaneal nerve provides motor innervation to the abductor digiti quinti, quadratus plantae (solid arrow), and flexor digitorum brevis (arrow head) muscles. Sensory fibers from the inferior calcaneal nerve supply the long plantar ligament and calcaneal periosteum. Repetitive, low-level trauma and inflammation, seen with associated structural abnormalities of the foot, may result in compression of the inferior calcaneal nerve. Persistent, medial hindfoot pain may occur with Baxter neuropathy and typically resembles plantar fasciitis or a variety of other hindfoot abnormalities.