Catastrophic Failure of an Infected Achilles Tendon Rupture Repair Managed with Combined Flexor Hallucis Longus and Peroneus Brevis Tendon Transfer

Michael R. Mankovecky, DPM (PGY-III); Devin C. Simonson, DPM (PGY-II); Thomas S. Roukis, DPM, PhD, FACFAS

Open repair of Achilles tendon rupture is commonly performed. Delayed incision healing is a known complication of open repair and can lead to deep infection. Development of a postoperative Achilles tendon infection may result in a massive functional defect and has limited reconstructive options.

We present a 43-year-old man who underwent primary open end-to-end repair of a ruptured Achilles tendon. Postoperatively, he developed delayed incision healing that led to deep infection prior to presentation to the authors. Clinical examination and MRI demonstrated sinus tract formation along the surgical incision that extended into the Achilles tendon (Figure 1). Débridement of all infected tissues including the entire Achilles tendon resulted in a 10-cm defect (Figure 2). The surgical defect was reconstructed with combined flexor hallucis longus (FHL) and peroneus brevis (PB) tendon transfer (Figure 3). Primary incision closure was unattainable, but was achieved with split-thickness skin grafting (STSG).

Limited options exist when managing catastrophic failure of an infected Achilles tendon rupture repair. We successfully employed a combined flexor hallucis longus and peroneus brevis tendon transfer to restore form and function following complete loss of the Achilles tendon. Optimal reconstruction regardless of approach requires adequate resting tension. Local tendon transfers can be helpful when used in phase and without creating untoward weakness.

RESULTS

Tenuous scarring with intermittent fissuring at the STSG application site was initially problematic, but remains quiescent. Following a course of physical therapy, his function remains comparable to the contralateral limb at 13-months post-reconstruction (Figure 4).

ANALYSIS and DISCUSSION

References