The patient was a 35-year-old man who worked as a pipe fitter. He was referred to a physical therapist by an orthopaedic surgeon for a chief complaint of progressively worsening pain in the medial aspect of the right distal Achilles tendon and heel that began insidiously 12 months earlier, which was consistent with a diagnosis of insertional Achilles tendonitis. The patient denied having any numbness or tingling in the ankle, feet, or toes. Prior radiographs revealed mild calcification at the insertion of the Achilles tendon (Figure 1, available at www.jospt.org).

At the time of the physical therapist’s initial evaluation, the patient stated that his current resting level of pain was 5 on a 0-to-10 numeric pain rating scale, with 0 being “no pain” and 10 being “the worst imaginable pain.” Using the numeric pain rating scale, the patient reported that his pain increased to a 9 with prolonged walking or standing. Visual observation revealed an antalgic gait. Range-of-motion assessment of the right ankle was within normal limits, with increased pain noted with end-range ankle dorsiflexion. The patient had difficulty performing single-leg heel rises for the right lower extremity due to pain in the medial aspect of the distal Achilles tendon. Tenderness to palpation was also noted along the medial aspect of the distal Achilles tendon and anteriorly toward the tarsal tunnel.

Despite physical therapist intervention for 8 weeks, the patient did not improve. Subsequent magnetic resonance imaging revealed a large multiloculated ganglion cyst in the tarsal tunnel (Figures 2 and 3). No abnormalities were reported for the Achilles tendon. Surgical removal of the ganglion cyst was recommended by the orthopaedic surgeon. At 6 weeks following surgery, the patient reported only occasional minimal pain, rated as a 1 on the numeric pain rating scale, and was able to perform all required work activities without difficulty.

Ganglion Cyst in the Tarsal Tunnel

DANIEL C. FARBER, MD, Department of Orthopaedics, University of Maryland School of Medicine, Baltimore, MD.
RICHARD M. LOVERING, PT, PhD, Department of Orthopaedics, University of Maryland School of Medicine, Baltimore, MD.

FIGURE 2. Axial T2-weighted, fat-saturated magnetic resonance image of the right ankle demonstrating a multiloculated ganglion cyst in the tarsal tunnel, measuring 1.2 cm in the anterior/posterior dimension and 1.1 cm in the transverse dimension (arrow).

FIGURE 3. Coronal T2-weighted, fat-saturated magnetic resonance image of the right ankle demonstrating a multiloculated ganglion cyst in the tarsal tunnel, measuring 3 cm in the superior/inferior dimension (arrow).