

A Perfect Storm for Achilles

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A Perfect Storm for Achilles

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Case Presentation

HISTORY: A fifty year old male smoker presented to his primary care provider (PCP) with one week of left posterior ankle pain. The pain started insidiously after a long day of walking. The morning of his appointment he felt a pop and significantly worse sharp pain in the same area of his ankle. He had been on ciprofloxacin for five days and oral prednisone for one month at the time of his appointment. Of note he had been on and off prolonged oral prednisone regimens for several months for dental issues. He was noted to have ecchymosis of posterior ankle, swelling of leg, and pain along the Achilles tendon. Ciprofloxacin was discontinued by his PCP, he was placed in a walking boot, and was set up to follow up in the sports medicine clinic two days later.

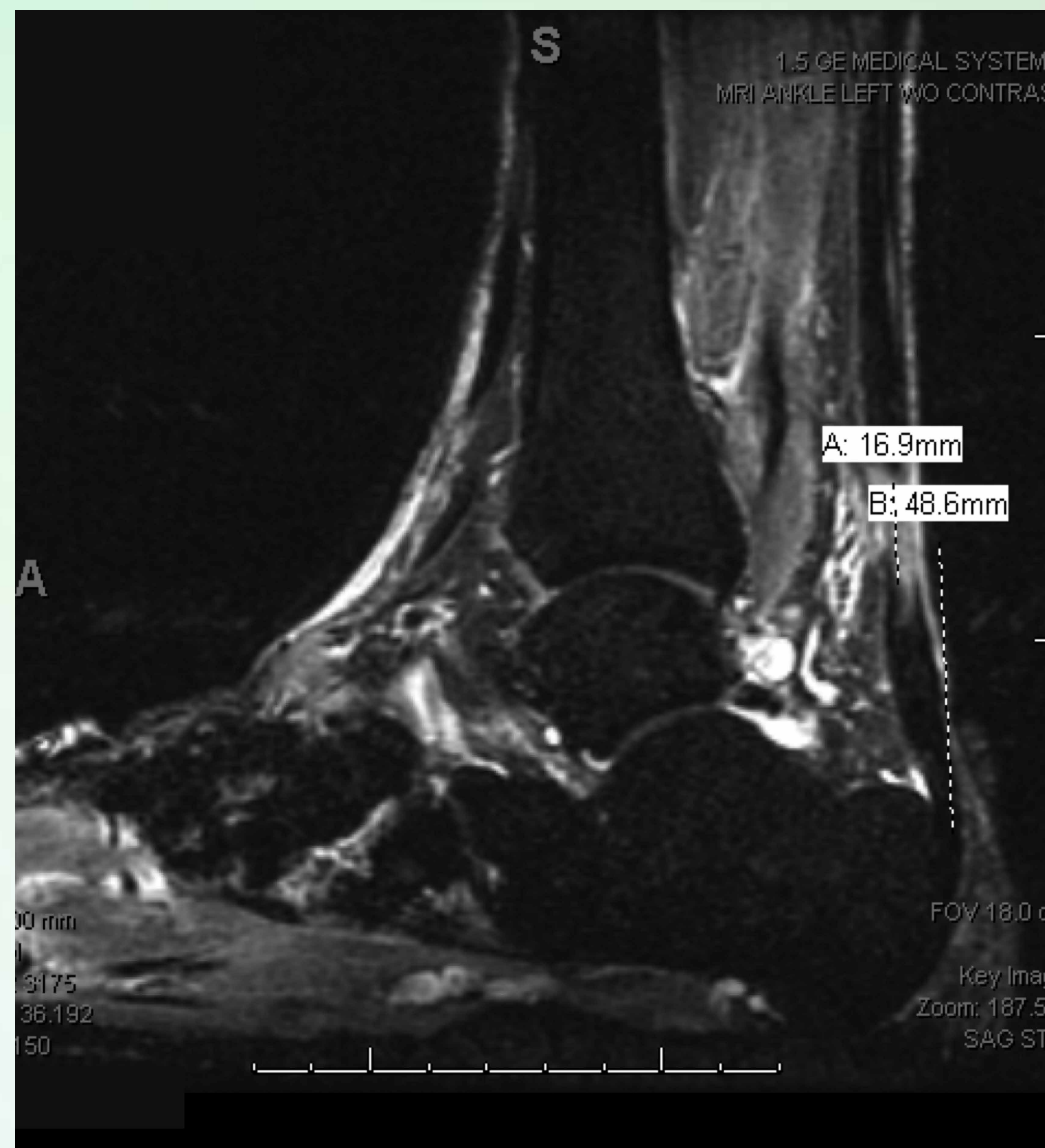
PHYSICAL EXAM: Patient in no acute distress. Mild edema to L knee; ecchymosis of distal posterior leg and posterior ankle; tenderness to palpation over distal Achilles tendon; normal range of motion of ankle including plantar and dorsiflexion; 4/5 strength in plantarflexion; 5/5 strength in dorsiflexion; no plantar flexion with Thompson squeeze test, normal posterior tibial artery and dorsalis pedis pulses; normal sensation of leg and foot.

DIFFERENTIAL DIAGNOSIS: Achilles tendon rupture, Achilles tendonitis, calcaneal bursitis, ankle sprain, tibial stress fracture, posterior ankle impingement syndrome, and cellulitis

BEDSIDE US: full thickness tear approximately 5cm from calcaneal insertion

MRI: There is disruption of the Achilles tendon suggesting essentially full-thickness tear, which is retracted by approximately 1.7 cm. Minimal thin remnants of the paratendon are suggested peripherally. The tear is centered 4.5cm above the Achilles insertion on the calcaneus.

FINAL DIAGNOSIS: Achilles tendon rupture



Discussion

This is a case where risk factors added up to lead to tendon rupture. The patient was a smoker, had prolonged exposure to oral steroids, and was recently started on a fluoroquinolone. It is known that fluoroquinolones carry a small risk of tendinopathy especially in the Achilles tendon and especially in the first week. There has also been an association of glucocorticoid use with tendon rupture. Common area of rupture is 2-6cm from insertion due to supply by the peroneal artery instead of posterior tibial artery. When it comes to repair, operative verses non-operative strategies carry their own risks and benefits with operative having higher risk of infection and deep venous thrombosis while lower risk of re-tearing. In the end however, the patient was not willing to give up smoking and it was felt the amount of degeneration that had taken place to that point was not conducive to successful surgical repair.

Outcome

The foot and ankle specialist discussed operative versus non-operative approaches. In the end it was decided that he should pursue a non-operative treatment due to a lower risk for deep venous thrombosis and infection especially in a smoker. He was therefore placed into a cast with non weight bearing parameters. Four weeks later he was transitioned to a CAM boot with partial weight bearing for two weeks. He was also referred to physical therapy. After two weeks he was transitioned to full weight bearing with CAM boot and heel lifts. After three weeks one heel lift was removed and after four weeks the other heel lift was removed. Six weeks later he was transitioned back to normal footwear. With physical therapy the patient was able to transition out of the CAM boot and back into normal shoes without gait abnormality or pain.

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