

Partial Achilles Tendon Rupture Following Corticosteroid Injection

A Caveat to Practitioners

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In brief

Corticosteroid injections are sometimes used to treat Achilles tendinitis after conservative measures such as anti-inflammatory medications, rest, ice massage, and immobilization have failed. Some research suggests that corticosteroid injections can lead to tendon rupture, though other investigations have not shown a correlation. A case report detailing partial Achilles tendon rupture after corticosteroid injection renews concern about the risks of this treatment.

deal treatment for recalcitrant Achilles tendinitis, a common malady among active patients, has become a topic of controversy. Corticosteroid injection has often been used in difficult cases, but many physicians are avoiding this treatment because corticosteroid use, local^{1,2} and systemic,³⁻⁵ has been associated with tendon rupture. The following case report suggests an association of corticosteroid injection and Achilles tendon rupture.

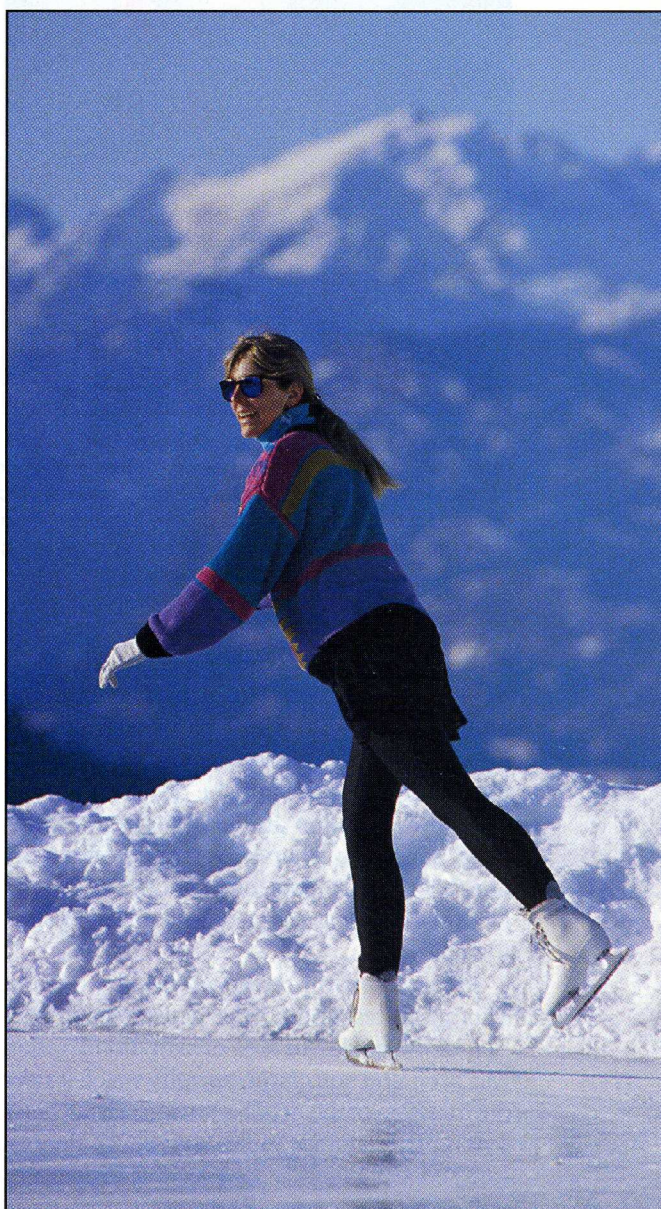
Case Report

A 34-year-old female recreational athlete was referred to our office. She was seen 2 months
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Figures: Courtesy of Bernard R. Bach, Jr, MD

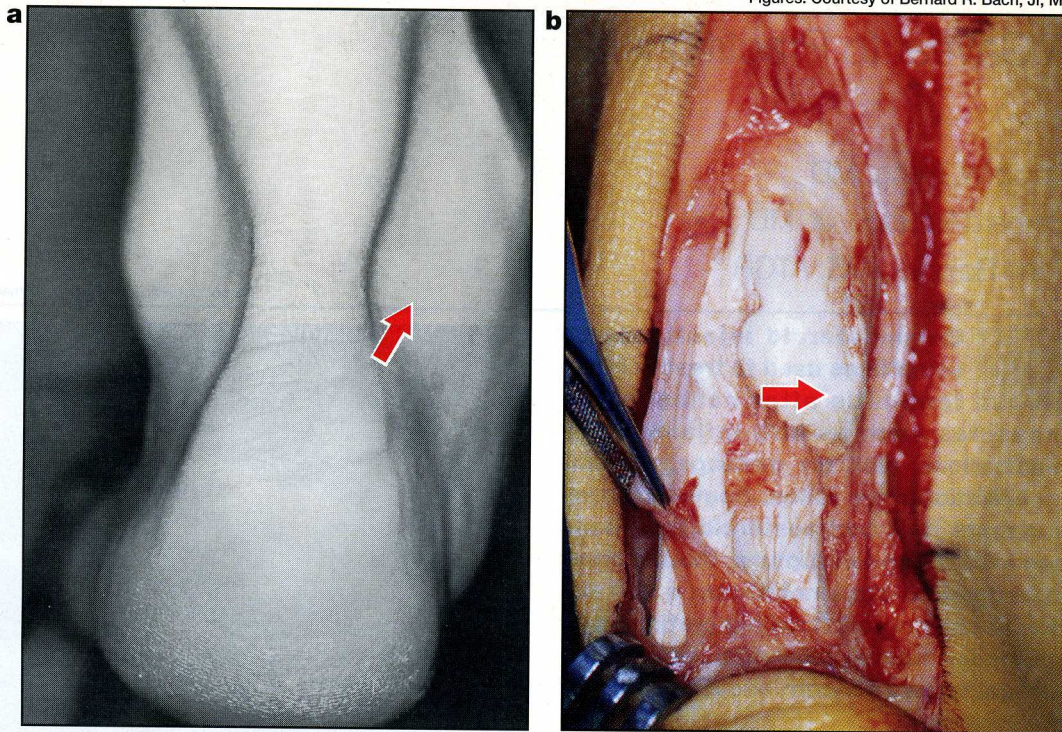


Figure 1. A posterior view of a 34-year-old female recreational athlete's left ankle (a) reveals an intact lateral edge of the Achilles tendon with medial fusiform swelling (arrow) that suggests a partial Achilles tendon rupture. Note proximal thickening above the rupture site. The same view intraoperatively (b) reveals a partial rupture of the Achilles tendon. Note the retracted portion of the tendon (arrow), its abnormal pearly gray color, and its scarred edges.

earlier by her primary care physician, who diagnosed left Achilles tendinitis and injected around the tendon with a corticosteroid. The injection initially improved some of her symptoms, but 1 month later she developed a dull ache at the tendon and experienced a “popping” sensation when she stepped off a curb. She reported that pain, crepitation, and plantar flexion weakness persisted despite physical therapy.

Physical examination revealed a normal Thompson test and normal active plantar motion of the ankle. An area of skin discoloration was seen and soft-tissue atrophy was felt near the insertion of the Achilles tendon. The Achilles tendon was laterally intact with a well-demarcated edge (figure 1a). However, this strut of ten-

don tissue, estimated to be 50% of the cross-sectional diameter of a normal tendon, was medially less evident; there was a palpable gap of 2 to 3 cm with fusiform swelling and proximal thickening. Plantar flexion strength was 4/5, but she was unable to perform a single-leg toe raise.

A magnetic resonance image (MRI) confirmed the clinical diagnosis of a partial Achilles tendon rupture. The patient had Achilles tendon insufficiency despite her normal Thompson test.

Upon surgical exploration we found that the posteromedial one half to two thirds of the tendon was ruptured (figure 1b). Fusiform swelling was noted proximal to the gap, about 2 to 3 cm above the insertion.

We repaired the torn tendon and applied a

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