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LETTER

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Ciprofloxacin and Achilles' tendon rupture: a causal relationship

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Fluoroquinolones are commonly used antimicrobials with favorable pharmacokinetic properties and a broad spectrum of activity. These drugs are very well tolerated. Tendinous involvement is a rare complication of fluoroquinolone use [1]. We describe a case of spontaneous rupture of the Achilles' tendon associated with ciprofloxacin use on one side, and the development of the same complication on the other side 1 year later following another use of the same drug.

A 32-year-old male surgeon presented with a severe pain in his right Achilles' tendon region while walking. He recalled no specific injury. He had used ciprofloxacin (500 mg tablets twice daily, 10 days) for typhoid fever 1 month ago. The right Achilles' tendon was tender to mild palpation. The clinical suspicion of Achilles' tendon rupture was confirmed by MRI. He was treated surgically with an uneventful outcome.

One year later he suddenly fell down with severe pain in his left foot while walking. He had again used ciprofloxacin (500 mg tablets twice daily, 10 days) for urinary tract infection 1 month ago. An orthopedic surgeon diagnosed left Achilles' tendon rupture, confirmed by MRI (Fig. 1). Surgical repair was again carried out uneventfully.

After the first report of fluoroquinolone-induced tendinitis in 1983 [2], many others have reported it subsequently [3, 4, 5, 6, 7]. The tendinopathy appears within a few weeks of the use of the drug, although extremes (1 day to 5–6 months) have also been reported [5, 6]. The patients are usually elderly. The risk factors are renal failure, steroid use, and collagen vascular diseases [6, 7]. However, the mechanism of this complication and the reason why tendinopathy and rupture occur more frequently in the Achilles' tendon are not precisely known.

Fluoroquinolone use and repeated tendon ruptures in our patient, who did not have any risk factors, both suggested a clear causal relationship and emphasized the roles of individual factors. Because these antimicrobials are in common use, physicians should consider this side effect even in the absence of the risk factors.

Fig. 1 MRI of the left ankle showing tendon discontinuity compatible with a complete tear of the left Achilles' tendon (*arrow*)

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