Letter to the Editors

Bilateral plantar tendinitis during levofloxacin therapy

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A 51-year-old woman was referred with suspicion of deep vein thrombosis 8 days after successful aorto-coronary bypass surgery.

On clinical examination a mild swelling of the calves with little pitting oedema were found. Plantar tendons on both feet were crepitating, rough and hurtful under palpation. On complete compression ultrasound (CCUS) proximal or distal deep vein thrombosis were excluded, but features of plantar tendinitis including oedema surrounding the plantar tendons of D II–IV on both feet were detected.

The patient had been on antibiotics since the day of surgery which had been changed from intravenous cefuroxime to oral levofloxacin 2 days prior to the onset of symptoms. Concomitant medication consisting of metoprolol, ramipril, simvastatin, acetylsalicylic acid, clopidogrel, hydrochlorothiazid, esomeprazole and paracetamol had not been changed. Since no trauma was reported, mobilization had so far progressed without problems and symptoms occurred simultaneously on both feet, levofloxacin was considered to be the most probable cause of the bilateral plantar tendinitis. Levofloxacin was discontinued and bed rest and cryotherapy were administered for 2 days. Symptoms completely subsided without further treatment within 2 days and the patient was discharged.

To our knowledge, no cases of bilateral plantar tendinitis associated with levofloxacin therapy have previously been reported, but there are an increasing number of reports associating tendinitis or ruptures of the Achilles tendon and very rarely hand or shoulder tendons with fluoroquinolone treatment [1–4].

Symptoms typically start within a few days after commencement of antibiotic therapy [1, 2], which has been confirmed in an animal experiment, showing degenerative alterations of tenocytes after 3 days of fluoroquinolone therapy [5]. Elderly patients [3, 6] and patients

with concomitant corticoid therapy [1, 3] seem to be at increased risk. The pathophysiology of fluoroquinolone-induced tenocyte degeneration involves changes in receptor and signalling proteins as well as apoptosis [7] and may be accelerated by magnesium deficiency [5, 8].

Physicians should be aware of early symptoms of any tendinitis under fluoroquinolone therapy. Withdrawal of fluoroquinolones and symptomatic therapy should start immediately and lead to an improvement of symptoms within a few days. For patients at risk, alternative antibiotic agents should be considered.

Competing interests: None declared.

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