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Achilles tendinopathy:

a guide for general practice

INTRODUCTION

Achilles tendinopathy is characterised by pain, swelling, and stiffness of the Achilles tendon. The midportion of the tendon is usually affected (75%) and less commonly, the insertion in the calcaneus (25%). It is most frequently seen in athletes, with a lifetime prevalence of 52% noted in elite runners. Conversely, a sedentary lifestyle is reported in one-third of patients with Achilles tendinopathy. The mean age has been reported as between 30–60 years.[1]

ASSESSING THE PATIENT'S PROBLEM

Patients describe stiffness after inactivity and a gradual onset of pain during activity. If not adequately managed this can progress to pain on very minor exertion. Red-flag differentials to exclude include tendon rupture (partial/complete) and features of inflammatory arthritis in patients with insertional Achilles tendinopathy. The risk of tendon rupture is very low (4%).[2] Clinical severity is assessed using the Victorian Institute of Sports Assessment — Achilles (VISA-A) questionnaire.

MANAGEMENT AND REFERRAL

Achilles tendinopathy is a clinical diagnosis and therefore investigation in primary care is seldom required (Box 1). Management should focus on medical risk-factor reduction (diabetes, obesity, hyperlipidaemia, fluoroquinolones)[1] education, and exercise-based rehabilitation. Patients should adjust their usual activity to ensure pain levels are ≤5/10 using a visual analogue scale.[3]

Exercise-based programmes focused on eccentric calf training have the best evidence, with 82% recovering at 3 months (Box 2).[4] Figure 1 shows the straight knee heel drop, starting position (A) and finishing position (B), and the bent knee heel drop, starting position (C) and finishing position (D).

Non-steroidal anti-inflammatory drugs are frequently used, although they lack good evidence. They may provide a short-term benefit; however, the potential harms

Figure 1. Eccentric heel drop exercises performed on a step.

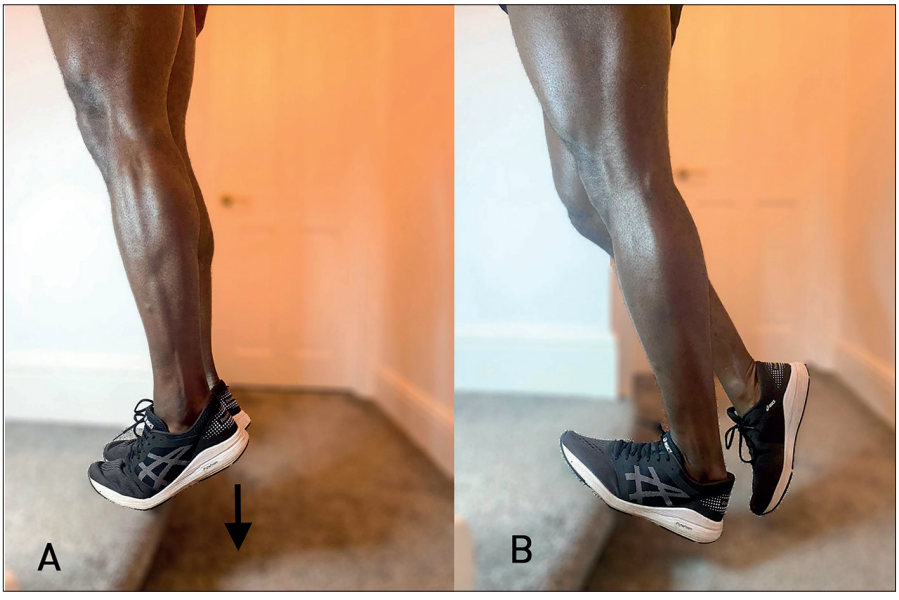

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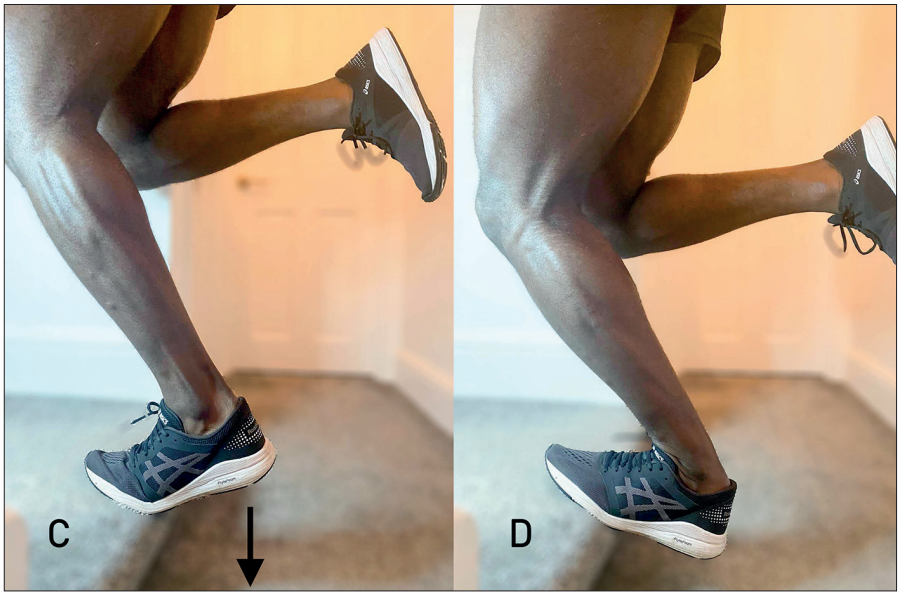
Figure 1 continued. Eccentric heel drop exercises performed on a step.



need to be weighed up for each patient. Steroid injections are not recommended by the National Institute for Health and Care Excellence.

Patients with high clinical severity, or are recalcitrant to rehabilitation at 3 months, should be referred to musculoskeletal experts such as a sport and exercise medicine physician, enabling further investigation (ultrasound/MRI) and adjunct therapies.

Evidence suggests improved short-term outcomes with the combination of eccentric exercises and extracorporeal shockwave therapy, platelet-rich plasma, or high-volume Injections.[5]

Provenance

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Competing interests

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Box 1. Clinical tests for Achilles tendinopathy[5]

Clinical test	Method	Outcome
Palpation	The whole length of the tendon is examined using the thumb and index finger in prone and also in standing	Positive result if tenderness, heat, thickening, crepitation or nodules are noted. Fluctuant bursa noted in retrocalcaneal bursitis
Painful arc	The tendon is observed as the patient is instructed to dorsiflex and plantarflex the ankle. This helps to distinguish between tendon and paratenon lesions	The identified area of swelling is noted to move with dorsiflexion and plantarflexion of the ankle. In para-tendinopathy the area of thickening will be fixed
Royal London Hospital test	The tendon is palpated in neutral/slight plantarflexion and then palpated again with active dorsiflexion of the ankle	The tenderness is noted to significantly decrease or become painless when the ankle is dorsiflexed

Box 2. Example of an Achilles tendinopathy eccentric exercise prescription

Frequency	Once daily
Intensity	Within pain tolerance (≤5/10 VAS)
Time	12 weeks
Type	1. Straight knee heel drop 2. Bent knee heel drop
Volume	Three sets × 15 repetitions
Progression	From bodyweight only initially, progression is achieved through addition of weights via a backpack

VAS = visual analogue scale.

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