Plantar fasciitis

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doi 10.1308/003588413X13511609957812

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COMMENT ON

Cutts S, Obi N, Pasapula C, Chan W

Plantar fasciitis. *Ann R Coll Surg Engl* 2012; **94**: 539–542
doi 10.1308/003588412X13171221592456

We read with interest the review on plantar fasciitis (PF) by Cutts *et al*. While this was an excellent account of the pathology and management of the condition, it was disappointing that management using a gastrocnemius release was totally excluded, especially as the authors had recognised reduced ankle dorsiflexion and tightness of the Achilles tendon as risk factors for PF. In fact, a number of modern series reported in the literature have used this technique in preference to local surgery on the plantar fascia.

Riddle *et al* found that individuals with $\leq 0^\circ$ of dorsiflexion are 23 times more likely to get PF compared with the group of individuals who had $>10^\circ$ of ankle dorsiflexion.¹ Cheung *et al* showed a relationship between the PF and equinus.² Achilles tendon loading has twice the amount of straining effect on the plantar fascia than body weight. They concluded

that lengthening of the Achilles tendon may benefit PF. Patel and DiGiovanni found that 83% of 254 patients with PF had limited dorsiflexion and 57% of 254 had an isolated gastrocnemius contracture.³ Maskill *et al* performed gastrocnemius recession on 25 patients with PF who had failed 6 months of conservative therapy.⁴ The average visual analogue scale score improved from 8.1 to 1.9 at 19.5 months.

We reported on proximal gastrocnemius lengthening on 21 heels with chronic PF.⁵ At follow-up, 81% had reported total or significant pain relief following the surgery. Local surgery on the plantar fascia has a poorer outcome and longer recovery with problems associated with lateral column dysfunction and arch collapse. We believe that a gastrocnemius release is a simple way of treating a patient with PF who has failed to respond to conservative management and that it should be considered before plantar fascia release when surgical intervention is contemplated.

References

1. Riddle DL, Pulisic M, Pidcoe P, Johnson RE. Risk factors for plantar fasciitis: a matched case-control study. *J Bone Joint Surg Am* 2003; **85**: 872–877.
2. Cheung JT, Zhang M, An KN. Effect of Achilles tendon loading on plantar fascia tension in the standing foot. *Clin Biomech* 2006; **21**: 194–203.
3. Patel A, DiGiovanni B. Association between plantar fasciitis and isolated contracture of the gastrocnemius. *Foot Ankle Int* 2011; **32**: 5–8.
4. Maskill JD, Bohay DR, Anderson JG. Gastrocnemius recession to treat isolated foot pain. *Foot Ankle Int* 2010; **31**: 19–23.
5. Abbasian A, Kohls-Gatzoulis J, Solan MC. Proximal medial gastrocnemius release in the treatment of recalcitrant plantar fasciitis. *Foot Ankle Int* 2012; **33**: 14–19.