Bilateral broken calcaneal spurs

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DESCRIPTION
A 53-year-old woman presented to our outpatients clinic with bilateral heel pain for the last 2 months. She had a history of fall 9 months ago, from 3 ft height on her heels, followed by a sudden onset of pain in both heels. It was very painful initially for 2 weeks, but then the pain gradually subsided with ice packs and painkillers. She did not undergo any radiological examination at the time of initial injury. The pain recurred again 2 months ago. The pain was more on weight-bearing and after taking a rest. There was no associated swelling around the heel. On examination, there was no local rise of temperature, but there was deep tenderness over the plantar aspect of both heels. The lateral views of both the heels, on plain radiographs, revealed the presence of bone pieces on the plantar aspect of both heels, suggestive of a broken calcaneal (heel) spurs (figure 1) of the pre-existing asymptomatic calcaneal spurs. The location of the spur and the site of tenderness were the same. The fractured fragments were located in the line of the pull of the plantar fascia (figure 2). As the patient presented to us after 9 months without taking any treatment or immobilisation, the fractured bone fragments of the spurs had displaced from their location. Conservative management in the form of oral analgesics, physiotherapy and extracorporeal shock wave therapy helped her to get relief from this pain in 3 weeks’ time, although the broken spur persisted in the sole on serial radiographs.

Calcaneal spurs are commonly found associated with heel pain due to plantar fasciitis. But the fracture of a calcaneal spur is extremely rare and has only been reported sparingly as solitary case reports.1–4 Bilateral involvement has never been reported before. Our case had bilateral non-union of the calcaneal spur fractures. In all the reported cases, the mechanism of injury was similar to our case, that is, a direct impact on the heel due to fall. In our case, over a period of time, these fractured spurs had migrated away from the calcanei due to traction by the plantar fascia, and a windlass effect seems responsible for it.2

Due to the rarity of this condition, the diagnosis may be missed or confused with other conditions like myositis ossificans, a foreign body3 or calcification in a soft tissue tumour. An awareness of this clinical entity is mandatory to make a prompt diagnosis. The conservative management of these fractured spurs is often sufficient to relieve pain in these cases, and surgery is rarely required.3 Various conservative treatments used for the symptomatic calcaneal spurs include non-steroidal anti-inflammatory drugs, physical modalities (like cryotherapy and ultrasonic therapy), local steroid and platelet-rich plasma injections, wearing silicone heel inserts in the shoes, extracorporeal shock wave therapy and avoiding high-impact activities.1,2 In a fractured calcaneal spur (if diagnosed early), a short leg cast may also be used.

Patient’s perspective
I am happy to be able to know the diagnosis of my problem, after 9 months of my injury, and grateful that medical management has helped me to cure the pain and the surgery was not required.

Learning points
► Broken calcaneal spurs can occur by direct injury or indirectly due to repetitive traction.
► Bilateral occurrence of fractured calcaneal spurs is extremely rare and has not been reported before.
► Often a conservative treatment is adequate to relieve pain in these cases and surgery is rarely required.
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