ISOLATED BILATERAL RECURRENT DISLOCATION OF THE CALCANEOCUBOID JOINT

A CASE REPORT

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An 18-year-old girl with moderate joint laxity presented with recurrent dislocation of the calcaneocuboid joint in both feet. We achieved successful stabilisation on both sides by reconstruction of the ligaments and capsule using the plantaris tendons.

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Reports of dislocation of the calcaneocuboid joint are rare. It has occurred after localised trauma and in association with the Ehlers-Danlos syndrome. We have not found a report of recurrent dislocation or of both feet affected. The rarity of the condition is attributed to the stability and stiffness of the joint as well as to its incorporation into the surrounding ligamento-osseous structures.

CASE REPORT

An 18-year-old girl was referred to our clinic because of a recurrent dislocation of the left calcaneocuboid joint. The initial injury had occurred six years earlier but its mechanism was uncertain. The dislocation had been reduced under general anaesthesia and a below-knee cast applied for six weeks. Further dislocations had required reduction under general anaesthesia on three occasions after a supination-plantar flexion injury. She subsequently learned to reduce the dislocation herself by applying force upwards and laterally to the plantar aspect of the foot. Similar, but less troublesome, dislocation had occurred less often in the right foot. She did not remember having any initial injury. She had dislocated a shoulder one year before but otherwise had no history of joint instability or laxity.

On examination the left calcaneocuboid joint was found to be loose with a tendency to subluxate on forceful supination and plantar flexion of the left foot, causing moderate pain. Hypermobility of the thumb, the hips and the subtalar joint was observed. There was hyperextension of the elbows to 10°, but the mobility of the other joints was within normal limits. The lumbar spine showed hyperlordosis. Neurological examination, including an EMG, was normal and she had no evidence of systemic disease. Radiographs showed an inferomedial dislocation of the cuboid (Fig. 1). Pain prohibited her from participating in sport and therefore reconstruction of the joint was carried out.

At operation, the joint capsule was found to be lax. The plantaris tendon was harvested through two small incisions, passed through two parallel tunnels drilled on the lateral aspect of the anterior process of the calcaneus and the lateral aspect of the cuboid, and stitched to itself (Fig. 2). This stabilised the joint. A backslab was applied for two weeks followed by gradual weight-bearing for four weeks in a below-knee cast. When reviewed 2.5 years later the joint was stable with a good functional result. There was no recurrence of the dislocation and she was free from pain with full function. She then began to have increasing problems with the right side and asked for this to be stabilised. Four years after she was first seen she has no problems except for mild hypaesthesia around one scar.

DISCUSSION

The calcaneocuboid joint has firm ligamentous attachments to the surrounding bones and a rigid fibrous capsule. The saddle shape of the articular surfaces and the close relationship to the peroneus longus tendon increase its stability. Most injuries of the midtarsal joint are fracture-disloca-
tions, usually associated with an impaction fracture at the calcaneocuboid joint, the so-called 'nutcracker-fracture'.

We believe that this case is the first description of bilateral recurrent dislocation.

No benefits in any form have been received or will be received from a commercial party related directly or indirectly to the subject of this article.

REFERENCES