Sesamoid bone interposition complicating reduction of a hallux joint dislocation

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Abstract
This is the first reported case of sesamoid bone interposition in the interphalangeal joint of the hallux as a complication of closed reduction of a dislocated interphalangeal joint of the hallux. The case also highlights the importance of post-reduction radiographs.

Key terms: hallux; dislocation; interposition; sesamoid

Case history
A 20 year old worker presented to the accident and emergency department. He described sustaining a "stubbing injury" to his right hallux during a football match. Examination revealed a tender right hallux with dorsal angulation. Radiographs revealed a dislocated interphalangeal joint which was reduced using Entonox and closed manipulation. Post-reduction radiographs showed sesamoid interposition at the interphalangeal joint with a widened joint space. A repeat manipulation using a bupivacaine digital nerve block reduced the sesamoid bone into the correct position and further radiographs confirmed this (figs 1–3).

Discussion
Sesamoid bone interposition as a result of the initial injury at the interphalangeal joint of the hallux is a recognised but rare occurrence.
The detailed anatomy of the interphalangeal joint of the hallux has been well described previously.1

With a Medline search we were unable to find any reports of sesamoid entrapment as a complication of closed manipulation of a dislocated interphalangeal joint of the hallux.

The recommended treatment for sesamoid interposition should be the same as for entrapment from the outset, with a trial of closed manipulation and reduction.7 Open reduction will be required for failure of closed reduction.1 An immobilisation splint is recommended for six weeks to prevent recurrence of the interposition.5

Post-reduction radiographs are essential and in this case may have helped to prevent long term complications for the patient. Post-reduction radiographs are routine after all manipulations in our department and this is in agreement with recently published guidelines.8