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. (J Accid Emerg Med 1996;13:297–298)

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.1-7

Plain x ray of the abdomen showing the air gun pellet.

and a repeat plain abdominal x ray was normal. He was observed for a 48 hours and discharged with a 10 day course of cephadrine and metronidazole. He remained well six months later.

Discussion
Injuries to the retroperitoneal parts of the colon should be suspected in back and flank trauma. Overwhelming evidence now suggest that gunshot wounds to the abdomen no longer warrant immediate laparotomy and that clinical predictors are important in avoiding unnecessary laparotomy.8 Although the clinical picture presented here is unusual, the main worry is the risk of a localised abscess formation or faecal fistula. Perhaps sieving of bowel motions should be done in all patients with similar clinical presentations treated conservatively in order to identify if the foreign body has been passed.

The detailed anatomy of the interphalangeal joint of the hallux has been well described previously. 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. Open reduction will be required for failure of closed reduction. An immobilisation splint is recommended for six weeks to prevent recurrence of the interposition. 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.


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**Figure 2** Sesamoid bone interposition of interphalangeal joint.

**Figure 3** Reduced sesamoid bone and interphalangeal joint.

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