



**QUESTION | What is the best management for a patient with fractures of both the radial and ulnar sesamoids of the thumb due to a fall?**

**ANSWER |** Sesamoids are bones which are encased within a tendon. The patella is the largest sesamoid bone in the body, within the quadriceps tendon. In the hand and wrist, the pisiform bone is the largest named sesamoid, within the flexor carpi ulnaris (FCU) tendon. Other relatively consistent sesamoids are found at the thumb at the level of the head of the metacarpal within the flexor pollicis brevis (FPB) and adductor pollicis brevis (APB) tendons. They are also sometimes found in the flexor tendons at the level of the metacarpal heads of the little and index finger, or at the head of the proximal phalanx of the thumb. Although these are usually rounded discrete bones, sometimes they are bipartite – that is, formed in two pieces, both of which remain visible on x-ray – and this appearance can be mistaken for a fracture, especially if there has been some kind of trauma.

Pain from the hand and wrist sesamoid bones are uncommon.

The most common problem would probably be a fracture of the pisiform from a fall onto an outstretched hand or a direct blow. These are treated symptomatically with oral analgesia, splint, rest and gradual reintroduction of activities. In cases of displaced fractures, or undisplaced fractures that continue to cause significant pain beyond about 6 weeks, pisiform excision and repair of the overlying FCU tendon gives good pain relief without any functional impairment.

Degenerative osteoarthritis can also affect the sesamoid bones, such as between the pisiform and the triquetrum. Degenerative arthritis around the sesamoid bones of the flexor tendons of the digits can also occur. In these scenarios, the grinding and clicking from the movement of the sesamoid bone can mimic a trigger digit. Non-operative treatment is in line with that of most other arthritic joints – that is, temporary immobilisation in a splint, oral analgesia, injections of local anaesthetic and steroid, and functional rehabilitation. In cases of unremitting pain, the sesamoid bones can be excised without functional loss. If there is any doubt as to whether or not there is a concomitant trigger digit, a trigger release can be done simultaneously.

So, to the original question about a patient with fractures of the ulnar and radial sesamoids of the thumb due to a fall, one must wonder whether in fact these were bipartite sesamoid bones and warn the patient that the radiological appearance of being fractured may not change with time. Regardless, the treatment for pain would be temporary immobilisation and analgesia, regardless of whether these are true fractures or not. A hand based thermoplastic splint that immobilises the CMC and MCP joints of the thumb should be sufficient, although it may sometimes be necessary to immobilise the IP joint as well. After about 4 weeks of splinting, if the pain is not subsiding, then I would consider an injection of local anaesthetic and steroid under ultrasound guidance. If the pain still remains, an excision of the sesamoids along with a release of the flexor tendon pulley can be performed.

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