

Conflict of interests

None declared.

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T. Nemoto and K. Inagaki

Showa University, School of Medicine, Department of Orthopaedic Surgery, Hatanodai, Tokyo, Japan
Email: t-nemoto@grad.showa-u.ac.jp

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Os supratrochleare dorsale

Dear Sir,

A 21-year-old, male, right-handed heavy manual worker was referred for treatment of intermittent right elbow pain. The pain had begun 6 months before and was intensified by elbow extension. The range of movement in the right elbow was normal with no locking, popping or catching of the joint. Radiographs of the right elbow showed an accessory ossicle in the olecranon fossa characteristic of an os supratrochleare dorsale (Figure 1). Radiography of the left elbow was normal. A CT scan of the right elbow in full extension demonstrated tilting and sliding of the ossicle in the olecranon fossa to allow the olecranon to be accommodated. The bone was separate from the distal humerus and the olecranon process (Figure 2). At surgery the ossicle, measuring 18 × 15 × 10 mm, was found to be lodged in the depth of the olecranon fossa and was slightly mobile. Although it resembled a large loose body, there was no osseous defect in the bed of the lesion suggestive of osteochondritis dissecans (Figure 3). The supratrochlear septum was intact. Histological studies of the lesion demonstrated normal bone structure and areas of cartilage proliferation. The patient gained complete pain relief after surgery.



Figure 1. An AP radiograph of the right elbow shows the accessory ossicle in the olecranon fossa.



Figure 2. A sagittal CT scan of the right elbow in full extension shows that the ossicle is tilted in the olecranon fossa to accommodate the olecranon in the fossa and that it is separate from the distal humerus and the olecranon process.

There are a few reports in English describing the os supratrochleare dorsale (Gudmundsen and Ostensen, 1987; Obermann and Loose 1983; Wood and Campbell, 1994). Previous speculations about its origins have suggested that it is a loose body

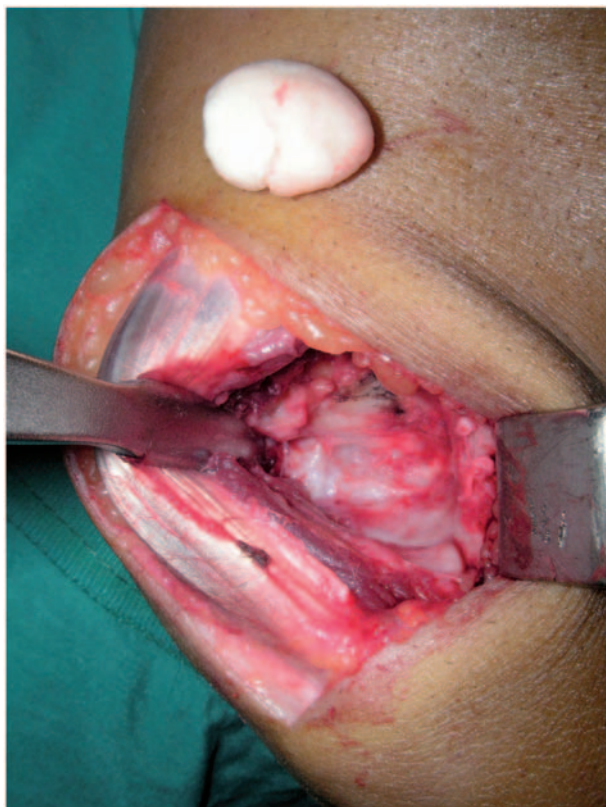


Figure 3. The lesion and its bed at surgery.

due to osteochondritis dissecans and that it develops from an incomplete resolution of the supratrochlear septum. However, it is now believed that it develops from a separate ossification centre in the olecranon fossa (Gudmundsen and Ostensen, 1987; Obermann and Loose, 1983). The differential diagnosis of the os supratrochleare dorsale includes synovial osteochondromatosis, osteochondritis dissecans and a post-traumatic loose body. However, it should be also distinguished from a sesamoid bone in the triceps tendon and an ununited ossification centre in the olecranon process (Gudmundsen and Ostensen, 1987; Obermann and Loose, 1983; Wood and Campbell, 1994). The pain experienced might be explained because of traumatization of the ossicle by the olecranon when the elbow extends and/or it may be due to rubbing of the triceps tendon against the ossicle (Wood and Campbell, 1994).

The os supratrochleare dorsale is a rare benign anatomical variation which is of interest to anatomists, radiologists and surgeons. It might be misdiagnosed if a surgeon is unaware of its existence. It may sometimes produce symptoms and require treatment. However, it must be distinguished from an underlying pathological process.

Conflict of interests

None declared.

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Ahmadreza Afshar MD
Associate Professor of Orthopaedics, Urmia
University of Medical Sciences, Urmia, Iran
Email: afshar_ah@yahoo.com

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The Miami breakout cast: a method for applying a removable cast

Dear Sir,

Cast immobilization is often used as a definitive treatment for fractures and after orthopaedic surgery (Spain, 2000). In our clinic alone over 800 casts are placed each year. Although this practice has been accepted for years, it is not without complications. The risk of vascular compromise with swelling leading to compartment syndrome is the most serious complication of casting; more frequently skin breakdown and joint stiffness can occur and cause significant discomfort to patients (Boyd et al., 2009). In an attempt to ease the burden on patients the authors have developed a method of cast immobilization using a removable 'breakout' cast.

A typical fibreglass short arm, long arm or thumb spica cast with an underlying layer of cotton padding and a single stockinette is applied to the extremity as described by Boyd et al. (2009). Longitudinal cuts are then made using an oscillating saw along the anterior and dorsal aspects of the overlying cast. Using a cast splitter the adjacent pieces are wedged apart, the underlying padding and stockinette are cut using scissors and the cast is removed. Adhesive Molestick (Alimed, Dedham, MA, USA) is then cut to the length of the cast with a width of 4 cm and folded along all cut edges to cover the fibreglass outer shell and inner padding (Figure 1). Adhesive Loop Velcro