Clinical Vistas Briefs

What’s your call?

Frontal (top) and lateral (bottom) digital radiographs of the left humerus of a 20-year-old, left-handed man who had sudden arm pain after throwing a dodgeball.

MRI scan of a 45-year-old man who has had recurrent bilateral hip pain for 13 months and, upon examination, mild loss of range of motion.

A 32-year-old man with diffuse, well demarcated, raised, erythematous scaly plaques. Removal of the plaques often led to pinpoint capillary bleeding.

See page 33 for diagnoses.
These radiographs reveal a mildly displaced, comminuted spiral fracture at the distal diaphysis of the left humerus with an associated butterfly fragment (Fig. 1). The patient, a healthy recreational athlete with no prior arm pains, described making an off-balanced but forceful throw that was accompanied by a loud snapping noise.

He was neurologically and vascularly intact, distal to the injury. No underlying lesion was identified to suggest a pathological fracture. Test results for serum calcium and thyroid-stimulating and intact parathyroid hormones were all in the normal range; a whole-body bone scan showed no evidence of other lesions. The patient was treated with a hanging cast that was later converted to a functional brace. Bony union was achieved at 11 weeks; no residual deficits were noted.

Fractures of the humeral shaft during a throw are relatively rare. Although they have been reported for various thrown objects, including hand grenades, javelins, shot-puts, cricket balls, stones and snowballs (Am J Sports Med 1998;26:242-6), the items most frequently thrown are balls; hence, the injury’s name. The fracture is almost always the result of a full-effort throw that is often accompanied by an audible crack or snap. Ball-thrower’s fracture is generally accepted to result from intense torsion upon the humerus during the acceleration phase of the throw.

Psoriasis plaques often present as they did in this case: well demarcated, raised and erythematous, with silvery scales. Pinpoint capillary bleeding, known as Auspitz sign (arrows, Fig. 1), can result when the scales are gently scraped away with a spatula or fingernail.

Avascular necrosis of bone is a rare but potentially severe complication of prolonged corticosteroid therapy. It has also been recognized after short-term treatment (CMAJ 2001;164:205-6). The annual incidence of avascular necrosis is about 5 per 10 000 population.

Work-up and further history excluded the other known causes of avascular necrosis: liver disease, alcoholism, caisson disease (decompression sickness), pancreatitis, drug abuse, gout, sickle-cell disease, hyperlipidemia, Gaucher’s disease and diabetes. The case was managed conservatively with rest, relief of weight-bearing with crutches, physiotherapy and simple analgesics.

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