Bilateral radial neck fractures – A Case Report

ABSTRACT
Radial head and neck fractures are the most frequently seen elbow fractures. The usual cause of this injury is a fall onto an outstretched hand with a partly flexed elbow. We report here an unusual case of bilateral non-displaced radial neck fractures in a patient who presented with complaints of pain in both elbows following a simple fall. This case highlights the need for a high index of suspicion in the diagnosis of multiple injuries, no matter how ‘trivial’ the mechanism of injury.

Key Words: Radial neck fractures, Bilateral fractures

CASE REPORT
A 56-year-old female presented with complaints of pain in both elbows two days after a fall onto both outstretched hands. She did not have any other injury or other significant medical history. The patient reported painful forearm movements and difficulty in the performance of activities of daily living. The radiographic findings were not noted by the physicians who saw this patient in the emergency unit, but the patient was referred to the Orthopaedic team for further work-up. On examination, she had full range of flexion in both elbows. However, supination and pronation movements produced significant pain and there was tenderness over the radial head region in both elbows. No other injuries were noted. Radiographs of both elbows (Fig. 1A, 1B, 2A and 2B) showed bilateral non-displaced radial neck fractures.

The patient was treated with a bilateral collar and cuff and analgesics for two weeks followed by mobilisation of both elbows. She was able to function with the collar and cuff due to family support for her daily activities. At six-month follow up, the patient was asymptomatic with a full range of motion at the elbow joints.

DISCUSSION
Fractures of the radial head are the most commonly seen elbow fractures in adults, accounting for 1.5% to 4% of all fractures and approximately 33% of all elbow fractures. The mechanism of injury in radial head and neck fractures is usually a fall onto an outstretched hand with a partly flexed elbow and pronated forearm causing longitudinal impact of the radius against the capitellum. Fekete, Detre and Szepesi
described the physiological valgus position of the elbow joint as the reason for this joint's vulnerability. Our patient reported a fall onto outstretched hands but she was unsure about flexing the elbows.

Patients classically present with painful passive rotation of the forearm. Crepitus, pain and swelling of the lateral aspect of elbow are also typically present. Diagnostic features such as the presence of a fracture line and a positive fat pad sign may not be obvious in all cases. Mason's classification (based on the severity of radial head and neck fracture) is used clinically to formulate the type and extent of treatment. In our case, the patient presented with pain on the lateral aspect of the elbow and painful forearm rotation.

We treated the patient with sling immobilisation and regular analgesia followed by early active mobilisation of the elbow. Early movement is advocated for prevention of elbow stiffness. In bilateral radial neck fractures, management with sling immobilisation makes day-to-day activities difficult if not impossible, therefore help with these activities is highly recommended. Displaced fractures are treated with open reduction and internal fixation, thus allowing early mobilisation.

We present this case as a timely reminder for clinicians, who when dealing with trivial injuries should examine patients with a high index of suspicion for bilateral injuries. To date, there are 2 published reports on this unique presentation. No matter how 'trivial' the mechanism of injury maybe, the presence of one easily diagnosed injury should not rule out a thorough examination of the patient for other injuries.
REFERENCES


