Case report 855

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Fig. 1. Plain radiograph of right elbow showing irregular, well-defined scalloping along the medial surface of the ulna. There is degenerative change at the elbow and erosion of the trochlea with patchy reduction in bone density.

Fig. 2. A Transverse ultrasound image showing a mass (arrows) wrapping around the ulna with extension into soft tissues. B Longitudinal image showing mass adjacent but separate from the ulna (arrows). Distal extension and underlying cortical scalloping is seen.

Fig. 3A, B. Arthrograms demonstrating cavity communicating with the elbow joint and extending along posterior ulnar border. Cavity boundaries correlate with the scalloping of the underlying ulnar cortex.
Clinical information

An 84-year-old lady with an 18-year-history of seropositive, erosive, anodular rheumatoid arthritis presented with a painful swelling in the right forearm. She had no history of trauma and no previous joint effusions. Examination revealed a firm, tender subcutaneous swelling measuring 8.3 cm on the ulnar aspect of the forearm. There was no vascular or neurological deficit in the right hand.

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Plain radiographs of the elbow (Fig. 1) showed irregular, well-defined scalloping along the medial surface of the right ulna with a sclerotic border, consistent with long-standing extrinsic compression. There was also patchy reduction in bone density. The elbow joint showed degenerative changes and erosion of the trochlea in keeping with the diagnosis of rheumatoid arthritis.

Ultrasonography of the forearm (Fig. 2) demonstrated a mass extending from just distal to the elbow joint down to the wrist. This appeared adjacent to the ulna but separate from the bone, with underlying cortical scalloping proximally and possible extension into the surrounding soft tissues. The mass appeared echolucent but the impulse transmission suggested that the swelling contained viscous fluid.

An arthrogram was performed by injecting water-soluble contrast medium into the radiohumeral joint (Fig. 3). This demonstrated a cavity extending two-thirds of the way along the posterior ulnar border and communicating with the elbow joint. The cavity boundaries correlated with the scalloping of the ulnar cortex.