A 21-year-old male patient was admitted to our emergency service with the complaint of pain on his left elbow after slipping and falling on his palm a few hours ago. Significant sensitivity and edema were present on his left antecubital region through the proximal radius without any open wound. Radial and ulnar pulses were palpable and there were no motor or sensory deficits. Elbow movements in flexion and extension were limited and painful. In antero-posterior radiography, radial head fracture was hardly seen (figure 1a). Lateral radiography of the elbow showed fat pad sign which is highly suggestive of a hidden fracture (figure 1b). Computerized tomography showed vertical progression of a fissure line in the proximal radius extending from the neck to the interarticular region (figure 1c). The best elbow fat pad sign is radiographically seen in full lateral flexion of 90°, any obligation suppressing the view. It occurs due to the existence of an elbow joint effusion. In adult patients with trauma, clinicians should search for intracapsular radial head fractures. Bad position during shooting, extracapsular abnormalities or rupture of the capsules leads to a false negative fat pad sign.

Figure 1a: Antero-posterior radiography showing radial head fracture.
Figure 1b: Lateral radiography showing fat pad sign.
Figure 1c: Computerized tomography showing vertical progression of a fissure line.