Calcific periarthritis of the elbow presenting as acute tennis elbow

A 28-year-old woman presented with sudden acute lateral epicondylitis. There was no history of preceding trauma or repetitive use of the arm. Because of the acute onset and signs of acute inflammation, an X-ray was arranged. The X-ray showed a hyperdense calcified elongated globule distal to the lateral epicondyle. A diagnosis of calcific periarthritis (calcium apatite) of the elbow was made. Calcific periarthritis has rarely been reported as a cause of acute elbow pain.

KEYWORDS Epicondylitis, tennis elbow, calcific periarthritis, calcium apatite crystals

DISCUSSION

Lateral elbow pain may originate from the lateral epicondyle, the radiohumeral joint, or be referred from the shoulder or neck. The pain of lateral epicondylitis (tennis elbow) is typically well localised and is aggravated by activity that contracts the wrist extensors, including repetitive use of the forearm and wrist and shaking hands. Pain arising from the elbow joint is located slightly more posterior to the epicondyle along the joint line, and is easily differentiated from the pain of lateral epicondylitis by limiting range of movement of the elbow. An elbow effusion will limit extension. Referred elbow pain is suggested by its vagueness, absence of increased pain with elbow movement, and aggravation of the pain with movement of the shoulder or neck. Repetitive movements involving eccentric motion, in which the muscle-tendon unit is lengthened while contracting, may increase susceptibility to injury. Bone marrow oedema of the lateral epicondyle (osteitis) has been reported as a...
possible underling cause of tennis elbow.\textsuperscript{2} Acute calcific periartthritis, caused by deposition of calcium apatite crystals has been more commonly reported in the shoulder, less so in the wrist or hand but very rarely as a cause of acute elbow pain.\textsuperscript{3–5} The aetiology and pathogenesis of acute calcific periartthritis is not clear but preceding local trauma or systemic calcium or phosphate abnormalities can contribute.

In the majority of cases the diagnosis of lateral epicondylitis can be made on clinical grounds. Calcific periartthritis as a cause of elbow pain is very rare\textsuperscript{3–5} but it should be suspected and a plain X-ray requested if a patient presents with very acute epicondylitis without any preceding history of trauma or sudden overuse of the upper limb. The condition responds to a local corticosteroids injection, non-steroidal anti-inflammatory drugs or colchicine.\textsuperscript{3,4} The calcification usually resolves after a few weeks.

**KEY POINTS**

- In the majority of cases the diagnosis of lateral epicondylitis can be made on clinical grounds.
- Calcific periartthritis should be suspected and a plain X-ray requested if a patient presents with very acute epicondylitis without any preceding history of trauma or sudden overuse of the upper limb.
- The condition responds to a local corticosteroids injection, non-steroidal anti-inflammatory drugs or colchicine.
- The calcification usually resolves after a few weeks.

**REFERENCES**