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# COMPRESSION OF THE LATERAL CUTANEOUS NERVE OF THE FOREARM BY A GLOMUS TUMOUR

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**We report a case of forearm pain secondary to compression of the lateral cutaneous nerve of the forearm by a glomus tumour.**

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Pain in the forearm due to an isolated lesion of the medial or lateral cutaneous nerve of the forearm is very rare (Patel et al, 1991; Seror 1993; Yuan and Cohen, 1985). We describe a case of pain in the forearm secondary to a previously unreported cause: compression of the lateral cutaneous nerve of the forearm by a glomus tumour.

## CASE REPORT

A 64-year-old right-handed man presented with a 16-month history of a burning pain in the radial half of the flexor surface of the left forearm between the elbow crease and the thenar eminence. Initially, the patient had noted a small mass at the lateral aspect of the forearm, just beneath the elbow crease, that was painful on touch. In the previous few months, the pain had significantly increased and was present continuously, radiating to the upper arm and the radial half of the forearm. Elbow movements increased the pain significantly. The patient had some paresthesiae, but no temperature hypersensitivity. There was no history of injury to the forearm.

On clinical examination, there was a small mass 1 cm in diameter palpable just beneath the elbow crease. Tinel's sign was positive.

At operation a soft purple well-defined tumour connected to the cephalic vein was found compressing the lateral cutaneous nerve of the forearm (Fig 1). It was dissected from the cephalic vein, thus decompressing the nerve. Except at the point of compression, the lateral cutaneous nerve of the forearm appeared otherwise normal.

Postoperatively, the patient had relief of pain and has remained asymptomatic ever since.

Histopathological examination of the extirpated specimen demonstrated a glomus tumour (Fig 2).

## DISCUSSION

The lateral cutaneous nerve of the forearm is a continuation of the musculocutaneous nerve of the upper arm and is a pure sensory nerve, supplying the flexor, radial and dorsal aspects of the distal forearm and wrist. The nerve emerges from the anterior surface of the brachialis muscle to the lateral aspect of the biceps brachii tendon at the level of the interepicondylar line (Bourne et al,

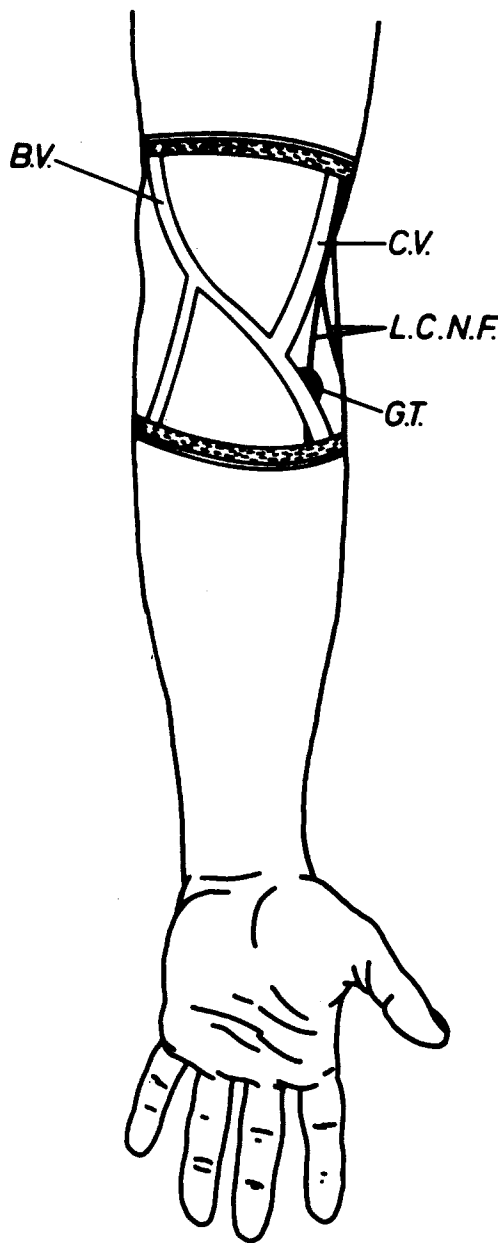


Fig 1 Diagram of the findings at operation. BV: basilic vein; CV: cephalic vein; LCNF: lateral cutaneous nerve of the forearm; GT: glomus tumour.

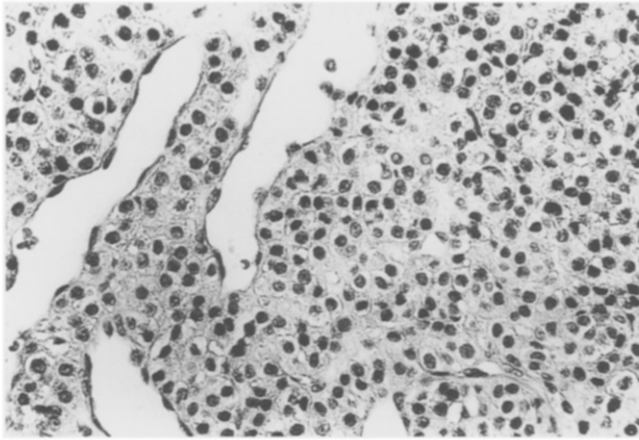


Fig 2 Histological section of the glomus tumour which is composed of blood vessels surrounded by a proliferation of round cells in a myxoid stroma (H and E, original magnification  $\times 300$ ).

1987). The nerve lies just deep to the antecubital veins and antecubital fascia.

Pain in the lateral aspect of the forearm due to the musculocutaneous nerve impingement syndrome (Bassett and Nunley, 1982) or a neuroma of the lateral cutaneous nerve of the forearm (Yuan and Cohen, 1985) has been described. To our knowledge compression of the lateral cutaneous nerve of the forearm by a glomus tumour has not been described previously.

The aetiology of a glomus tumour, which in more than 50% of cases occurs under the nail bed, is unknown, although some patients have a history of injury to the area (Carlstedt and Lugenård, 1983). Our patient did not sustain any injury.

Although a glomus tumour in the forearm can itself cause pain (Takei and Nalebuff, 1995), as might have been the case in our patient, the typical radiating burning pain in the course of the lateral cutaneous nerve of the forearm, the Tinel's sign and the clear signs of nerve compression found at operation, indicate that the pain was secondary to compression of the lateral cutaneous nerve of the forearm.

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