ELASTOFIBROMA OF THE HAND

PETER D. KAPFF, DAVID B. HOCKEN, RODERICK H. W. SIMPSON

From Royal Devon and Exeter Hospital, Exeter

A 69-year-old man presented with a 20-year history of a slowly enlarging mass of the left index finger dating from a hammer injury. The mass was excised, and seen to have the characteristic histological appearance of an elastofibroma, a benign tumour-like growth usually found in the soft tissue of the back. Such a lesion has not previously been documented in the hand, which we consider surprising in view of the generally accepted traumatic aetiology of this entity and the susceptibility of the hand to injury.

Elastofibroma characteristically presents as a painless, slow-growing soft-tissue mass in patients over the age of 50. It is usually firm to the touch and not attached to the overlying skin. Pathological examination reveals an unencapsulated tumour-like proliferation of collagen and elastic fibres with relatively sparse fibroblasts. There is also a variable amount of interstitial ground substance, and some mature fat cells may be included (Enzinger and Weiss 1983). First described by Järvi and Saxen in 1961, most cases then and subsequently have been situated in the soft tissue beneath the scapula. However, lesions with an identical appearance have been documented in other sites such as the right breast, lateral chest wall (Enzinger and Weiss 1983), thigh (Barr 1966), foot (Cross, Mills and Kulund 1984), stomach (Enjoji, Sumiyoshi and Sueyoshi 1985), greater omentum (Tsutsumi et al. 1985), conjunctiva (Austin et al. 1983), deltoid region (Mirra, Straub and Järvi 1974) and the infra-olecranon area (Nagamine, Nohara and Ito 1982). In contrast, elastofibroma has not, as far as we know, been reported in the hand, and we believe ours to be the first such case.

CASE REPORT

A 69-year-old white man presented with a painless swelling of the left index finger which prevented him wearing a glove. He had first noticed it 20 years previously after an accidental self-inflicted hammer blow. It then increased slowly in size, but over the most recent two or three years it had changed little. Clinical examination showed a soft, non-tender, fairly well circumscribed mass approximately 4 cm in diameter on the palmar surface over the terminal phalanx (Fig. 1). Otherwise the patient was well. There were no further lesions and, in particular, nothing abnormal was palpated in the soft tissue of the back. The most likely clinical diagnosis was considered to be a lipoma.

At operation, a fairly well-defined mass was found which was easily dissected away from the normal pulp tissue. The wound healed uneventfully, and the patient remains well with no recurrence eight months later.

Pathological examination. The lesion was a solid, ovoid mass measuring 4.5 × 4.0 × 2.5 cm with a grey-white cut surface. It was well circumscribed, but it lacked a true capsule. Microscopic examination revealed a relatively sparse population of thin spindle-shaped fibroblasts...
separated by thick eosinophilic fibres (Fig. 2), which stained strongly with the Verhoeff elastic stain (Fig. 3). There was also a little mucopolysaccharide, positive to alcian blue, in the ground substance. No mitotic figures or cytological atypia were observed. Neither were there any other elements; for example, no nerves or Schwann cells were identified with either conventional histological or immunohistochemical techniques.

Whatever the cause, elastofibroma is a benign condition. It has no tendency to recur, and those on the back are successfully treated by surgical excision. This approach applies to elastofibromas found elsewhere, and it can fairly safely be deduced that it also applies to those on the hand.

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DISCUSSION

Elastofibroma is not a true neoplasm, and is generally considered to be a degenerative pseudotumour. It is widely felt that those on the back are due to repeated friction between the chest wall and tip of the scapula. Similarly, trauma has been implicated in lesions at other sites, as illustrated by the case where an elastofibroma arose close to the ischial tuberosity shortly after a fracture of the femur on the same side (Waismann and Smith 1968). Therefore we find it surprising that no case has been described in the hand, where injuries are so common. One explanation could be that a clinically apparent lesion is just an unusual exaggeration of a common phenomenon. Järvi and Lånsimies (1975) examined the soft tissue from the region of the scapula in 235 random autopsies and found elastofibroma-like changes in 38 of them. We are not aware of any similar study having been performed on the hand, but it could well yield comparable results. Alternatively, trauma alone may be insufficient as a cause, and development of an elastofibroma may require a genetic predisposition. In support of this, one third of the cases of Nagamine et al. (1982) from Okinawa gave a positive family history.

REFERENCES