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Case Report

Carpal tunnel syndrome secondary to Masson's tumour

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ABSTRACT

We present a case of a Masson's tumour causing carpal tunnel syndrome. Space occupying lesions should be considered as a differential in refractory cases of carpal tunnel syndrome, especially those in whom the symptoms are dynamic. Once radiological investigation confirms such a diagnosis, we advocate surgical excision, as malignancy can only be excluded via histological examination.

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1. Case report

A 43-year-old female presented to our clinic with a 2-month history of paraesthesia and pain affecting her right hand corresponding to the distribution of the median nerve. Her symptoms were progressive, nocturnal and in addition interfered with her activities of daily living. She was right hand dominant and had no significant past medical history.

Examination revealed no objective sensory or motor abnormality but a diffuse, palpable soft tissue swelling immediately proximal to the flexor retinaculum, which was clinically consistent with a flexor tenosynovitis. Tinel's, Durkan's and Phalen's tests were positive at the carpal tunnel. A clinical diagnosis of carpal tunnel syndrome was made.

Median nerve conduction studies were normal. In order to investigate the swelling further, an ultrasound was requested, which demonstrated a soft tissue mass appearing to lie between the tendons of flexor digitorum superficialis measuring 4 cm by 0.9 cm (Fig. 1). The mass could be demonstrated to glide proximally out of the carpal tunnel and was radiologically consistent with a soft tissue neoplasm, possibly a haemangioma or lipoma. To further investigate, an MRI was performed with clenched fist and relaxed views. In the relaxed position, the mass was identified distal to the carpal tunnel between the deep and superficial flexor tendons. The clenched fist position demonstrated proximal migration to rest in the distal forearm and carpal tunnel (Fig. 2). The differential diagnosis of lipoma was felt less likely at this time.

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Fig. 1 – Axial ultrasound at level of distal radioulnar joint in clenched fist position.

The patient was taken to theatre for carpal tunnel decompression and excision biopsy via an extended open approach. A well-demarcated pale grey mass was identified and found to be adherent to the tenosynovium with no gross invasive features. The procedure was uncomplicated, and the median nerve was normal to direct examination.

Postoperatively, the patient made a satisfactory recovery and was reviewed in the outpatient clinic with histological results. These showed multiple fragments of fibro-collagenous tissue containing vascular channels. There were also multiple small papillary structures, some of which were covered by attenuated endothelial cells with no significant atypia. The papillary cores were composed of hyalinised fibrinoid material. These papillae appeared to be lying free within the vascular lumen. The vascular channels were surrounded by fibrosis and inflammation. The overall appearances were in keeping with intravascular papillary endothelial hyperplasia (Masson's tumour).

2. Discussion

Masson's tumour is a benign vascular tumour described by Pierre Masson.¹ A number of descriptive terms have been used for this lesion including intravascular angiomatosis, intravascular endothelial proliferation and Masson's pseudoangiosarcoma; however, the most accurate term is intravascular papillary endothelial hyperplasia.²

Clinically, the lesion appears as a soft and often compressible mass, which is slow growing and may be painful or painless. It has been documented to occur in all major body organs and although benign, intracranial lesions have proven fatal due to their space-occupying and potentially

Fig. 2 – Axial T1 MRI at level of distal radioulnar joint in clenched fist position.

haemorrhagic effects. They occur frequently on the extremities, trunk, head and neck and are often clinically confused with sebaceous and dermoid cysts, granulomatous lesions, haemangiomas and other vascular pathologies both benign and malignant.³

Histologically, the lesions occur in a pure form within dilated vascular spaces or as a focal change within pyogenic granulomas or haemangiomas. They can occur at any level of the dermis or within the soft tissues, appearing as multiple or isolated papillae within a vessel lumen or dilated vascular space. They are invariably associated with thrombotic material. Both clinically and histologically, they may be mistaken for an angiosarcoma.³

To the best of our knowledge, this is the first case of a Masson's tumour causing carpal tunnel syndrome. Space occupying lesions should be considered as a differential in refractory cases of carpal tunnel syndrome, especially those in whom the symptoms are dynamic. Once radiological investigation confirms such a diagnosis, we advocate surgical excision, as malignancy can only be excluded via histological examination.

Conflicts of interest

All authors have none to declare.

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