Neurolymphomatosis of the ulnar nerve presented with cubital tunnel syndrome: A Case Report

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Introduction

• Lymphoma is a malignant cancer that occurs in the lymphatic system. Neurolymphomatosis is defined as lymphoma cells invading the peripheral nervous system (PNS).

• Especially, Neurolymphomatosis involving the ulnar nerve on the elbow causing symptoms like cubital tunnel syndrome is extremely rare.

• Therefore, the authors report a case of neurolymphomatosis invaded the ulnar nerve in patients with cubital tunnel syndrome symptoms on the elbow, with a literature review.

Case Report

• Age/Sex : 82/F
• C/C : Numbness in 4th and 5th finger of the right hand
• Onset : 2 month ago
• 1st interosseous muscle atrophy
• Claw hand on 4th and 5th fingers
• Tinel’s sign on the elbow joint
• NCV & EMG -> suspected as cubital tunnel syndrome.
• MRI findings : neurolymphomatosis of the ulnar nerve, involving the flexor carpi ulnaris and surrounding soft tissue. (Fig 1)

Discussion

• Surgical findings : the ulnar nerve was thickened in a spindle shape. (Fig 2)

• Biopsy was performed on the surrounding soft tissue and part of the endoneurium. Decompression were also performed on the ulnar nerve.

• Large-cell lymphoma (Ki-67 (+) lymphoma) was found on biopsy, and immunohistologic examination showed immunological activity against CD3, CD5, CD20, BCL2, and BCL6.

• In conclusion, the patient was diagnosed with diffuse large B-cell lymphoma as stage IV

• Chemotherapy using rituximab, cyclophosphamide, doxorubicin, vincristine, and prednisolone (R-CHOP) was administered 6 times in 4 months.

• After the chemotherapy, finger numbness was improved.

• Our case is a very rare case of neurolymphomatosis in the ulnar nerve in the cubital tunnel without being diagnosed as lymphoma.

• The symptom progression was relatively fast, and there was a slight elbow swelling and tenderness. Therefore, we suspected secondary cause such as tumor and early diagnosed neurolymphomatosis of ulnar nerve before surgery.

• Therefore, if the cubital tunnel syndrome is not common symptoms and signs such as severe pain, sudden onset or rapid progression, the secondary cause should be considered.

• Good therapeutic results are expected found in the early stage and appropriate therapy is performed.