

UTILIZATION OF BRACHIAL PLEXUS IMAGING AS AN ADDITIONAL DIAGNOSTIC TOOL IN THE ASSESSMENT OF MULTIFOCAL MOTOR NEUROPATHY

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Case Report: We present the case suggesting that multifocal motor neuropathy (MMN) is a slowly progressing asymmetrical acquired disorder with clinical appearance in the hands and detection of high signal in STIR MRI, which may be due to diffuse nerve swelling in brachial plexus. A 49-year old female was presented for evaluation of possible distal spinal muscle atrophy with 15 years progressive left hand 3 and 4 fingers drop and some weakness in the left hand. Recently, the symptoms have appeared in the right hand, including muscle cramps and increased wasting of thenar and hypothenar in the left hand, fasciculations in the upper limb. NCSs showed a probable motor conduction block of the right ulnar and median nerves. CMAPs were too lower in the left ulnar and median nerves. Needle EMG demonstrated chronic neurogenic changes in different muscles. There was T2 hyperintensity and diffuse nerve swelling of the brachial plexus in MRI results, predominantly on the right side. Laboratory presence of anti-GM1 IgM antibodies. In this case, response to treatment with intravenous immunoglobulin with significant axon loss was limited.

Conclusions: MRI of the brachial plexus can be a useful diagnostic tool in specific cases of MMN, especially when EMG/NCSs changes are not precise and thus provide supportive information.

