

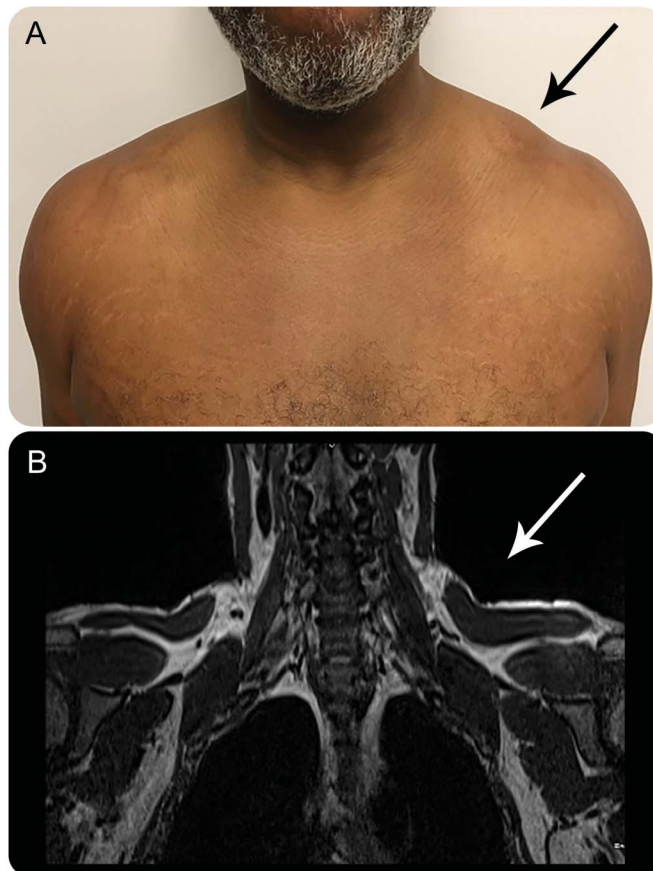
Teaching Video NeuroImages: Trapezius muscle hypertrophy in multifocal motor neuropathy



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Figure Anteroposterior photograph and coronal SPACE T2 MRI



(A) Anteroposterior photograph demonstrates a convex bulging of the left upper trapezius muscle (black arrow). With IV immunoglobulin therapy, myokymia and fasciculations became infrequent and the asymmetry gradually subsided after 1 year. (B) Coronal SPACE T2 MRI. The left trapezius diameter was 2-3× larger on all cuts (white arrow), but had normal signal characteristics.

Neurogenic muscle hypertrophy has been reported in spinal muscular atrophy, radiculopathy, postpolio syndrome, chronic inflammatory demyelinating polyradiculoneuropathy, and multifocal motor neuropathy (MMN).

A 50-year-old man presented with GM1 antibody-negative MMN, prominently affecting the right radial and left fibular nerve territories. Nerve conduction studies demonstrated definite motor conduction blocks. There was striking hypertrophy of the

left trapezius (figure, A), clearly seen on MRI (figure, B). The trapezius muscle showed frequent fasciculations and myokymia (video at Neurology.org). Trapezius muscle hypertrophy was attributed to constant activation by ectopic motor action potentials in the spinal accessory nerve,¹ whereas the predominant pathophysiology in other affected nerves was paresis from conduction block. There was substantial clinical and electrophysiologic improvement with IV immunoglobulin therapy.

Supplemental data
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AUTHOR CONTRIBUTIONS

Pierre Bourque: case selection, acquisition of data, intellectual content. Mahmoud Al-Hajji: revision, literature review. Jocelyn Zwicker: revision of manuscript. Jodi Warman Chardon: revision of manuscript for intellectual content.

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DISCLOSURE

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