

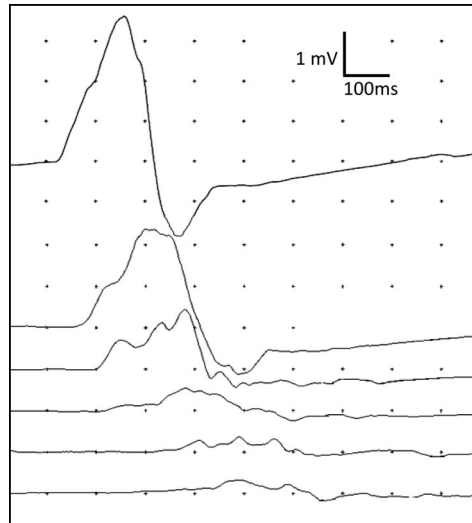
Teaching Video NeuroImages: Widespread clinical myokymia in chronic inflammatory demyelinating polyradiculoneuropathy



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Figure Waveform demonstrating conduction block and temporal dispersion in a patient with CIDP



Right ulnar compound muscle action potential demonstrates prolonged distal motor latency, conduction block, and temporal dispersion. The figure illustrates an inching study with stimulation at the wrist, at 5 cm below the elbow, at 2.5 cm below the elbow, at the elbow, at 2.5 cm above the elbow, and at 5 cm above the elbow.

A 62-year-old man presented with a 3-month history of progressive weakness, sensory loss, and involuntary muscle twitching. Examination revealed widespread myokymia (see video on the *Neurology*[®] Web site at www.neurology.org), weakness, and areflexia. Nerve conduction studies demonstrated a demyelinating neuropathy, providing evidence for a diagnosis of chronic inflammatory demyelinating polyradiculoneuropathy (CIDP) (figure, table). EMG demonstrated continuous motor unit activity (CMUA).

Hypotheses explaining CMUA include an antibody-mediated channelopathy,¹ ephaptic transmission at sites of demyelination,² and nerve hyperexcitability in newly formed unmyelinated collaterals. CMUA in CIDP has been reported to respond to both immunosuppression² and sodium channel antagonists.¹

AUTHOR CONTRIBUTIONS

Dr. Chhibber: drafting/revising the manuscript, acquisition of data. Dr. Greenberg: drafting/revising the manuscript, study concept or design, analysis or interpretation of data, acquisition of data.

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Table Nerve conduction studies in patient showing features of CIDP^a

Motor nerve	Stimulation site	Distal motor latency, ms	Amplitude, mV	Conduction velocity, m/s
Left median	Wrist	7.1 (<4.5)	8.7 (>4.0)	
	Forearm		4.2 ^b	28.6 (>50)
Right median	Wrist	6.7 (<4.5)	6.8 (>4.0)	
	Forearm		3.7	22.6 (>50)
Right ulnar	Wrist	6.3 (<3.5)	3.6 (>5.5)	
	Below elbow		1.4 ^b	17.6 (>50)
Right peroneal	Ankle	No response		
Right tibial	Ankle	No response		

^a Motor nerve conduction studies demonstrated prolonged distal motor latency, conduction velocity slowing, and conduction block in multiple nerves in keeping with CIDP. Normal values are listed in parentheses. Sensory nerve conduction studies demonstrated absent right median, ulnar, radial, and sural responses.

^b Conduction block was defined as a drop in amplitude of >50% between sites of stimulation.

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Disclosure: Dr. Chhibber reports no disclosures. Dr. Greenberg receives publishing royalties for *EMG Pearls* (Hanley & Belfus, 2004); has served as a consultant for MedImmune, LLC and receives research support from MedImmune, LLC, the NIH, and the Muscular Dystrophy Association; and has served as a consultant in medico-legal cases regarding zinc-induced copper-deficiency myelopathy.

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Neurology 2011;77:e33

DOI 10.1212/WNL.0b013e318227b202

This information is current as of August 1, 2011

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