

DOB:	20-Jan-1967	Study Date:	18-Jun-2024 08:30
Sex:	M	Location:	Mayo Clinic Hospital in Florida
Staff:	Granger, Andre K. 127 or (78)3-3909	Ordered by:	ZEMAN, ASHLEY M

**** Final Report ****

Study Number: 1

Referred for: Dysphagia, SOB, weakness, hand numbness and tingling

Referral Code: 058 034 080 211 920

Referral Diagnosis: 211 920

SUMMARY:

Prior to starting the procedure, the patient's identity was verified, pertinent available records were reviewed, the nature of the procedure was explained, the appropriate sites of the exam were confirmed directly with the patient, and a pre-procedure pause was performed for final verification of all of the above.

The right median nerve was evaluated with ultrasound, using a high frequency linear transducer to evaluate the nerve in short and long axis at the wrist and in short axis at the mid forearm. The patient was positioned semi-recumbent, with the elbow extended, in relaxed supination. The nerve cross-sectional area at the wrist was enlarged and the wrist-forearm cross-sectional area ratio was increased. A bifid median nerve or persistent median artery was not present. Images were saved to the internal Cadwell network server.

Nerve conduction study of the bilateral upper limbs, including bilateral median and ulnar palmar studies, revealed an unreliable median F-wave response probably secondary to electrical artifact. The remainder of the nerve conduction study was normal. Concentric needle examination of selected right upper limb, right lower limb, and right thoracic paraspinal muscles revealed very rare fasciculation potentials in the medial gastrocnemius and first dorsal interosseous pedis, but was otherwise normal.

CLINICAL INTERPRETATION:

This is a mildly abnormal study. There is sonographic evidence that could be consistent with a median mononeuropathy at the right wrist (as can be seen in carpal tunnel syndrome in the appropriate clinical context). The very rare fasciculation potentials in a couple distal lower limb muscles in the absence of other needle EMG abnormalities are likely to represent a benign process. There is no electrodiagnostic evidence of a length-dependent, large fiber peripheral neuropathy; right cervical radiculopathy; disorder of the motor neurons or their axons; myopathy; or a polyradiculopathy.

A. Granger (127 or (78)3-3909)

NERVE CONDUCTIONS

Nerve	Type	Record Site	Rep Stim	Side	Amp	Normal Amp	CV	Normal CV	Distal Lat	Normal Lat	F-Wave Lat	F-Wave Est	Temp (°C)
Fibular	Motor	EDB		R	7.2	(> 2.0)	44	(> 41)	4.3	(< 6.6)	51.5	55.2	30.6
Tibial	Motor	AH		R	8.6	(> 4.0)	47	(> 40)	4.0	(< 6.1)	53.8	52.5	30.7
Sural	Sensory	Ankle		R	9	(> 6.0)	44	(> 40)	4.1	(< 4.5)			30.8
Median	Motor	APB		R	11.3	(> 4.0)	51	(> 48)	3.5	(< 4.5)	-0.1	30.2	31.0
Ulnar	Motor	ADM		R	9.3	(> 6.0)	60	(> 51)	2.9	(< 3.6)	28.9	25.6	31.0
Median	Sensory	Wrist		L	103	(> 50.0)		(> 56)	1.9	(< 2.3)			30.9
Median	Sensory	Wrist		R	105	(> 50.0)		(> 56)	1.8	(< 2.3)			31.2
Median	Sensory	Dig II		R	24	(> 15.0)	57	(> 56)	3.1	(< 3.6)			31.0
Ulnar	Sensory	Wrist		L	16	(> 15.0)		(> 55)	1.9	(< 2.3)			31.3
Remark: Moved G1													
Ulnar	Sensory	Wrist		R	18	(> 15.0)		(> 55)	1.8	(< 2.3)			32.7
Remark: Moved G1													
Ulnar	Sensory	Dig V		R	35	(> 10.0)	62	(> 54)	2.9	(< 3.1)			31.0

NEEDLE EMG

Muscle	Side	Ins Act	Spont		MUP Normal	Activ	Recruitment		Duration		Amplitude		Phases	
			Fib	Fasc			Reduced	Rapid	Long	Short	High	Low	%	Turns
First dorsal interosseous	R	NL	0	0	NL									
Pronator teres	R	NL	0	0	NL									
Biceps brachii	R	NL	0	0	NL									
Deltoid (middle)	R	NL	0	0	NL									

NEEDLE EMG

Muscle	Side	Ins Act	Spont		MUP Normal	Activ	Recruitment		Duration		Amplitude		Phases	
			Fib	Fasc			Reduced	Rapid	Long	Short	High	Low	%	Turns
Triceps brachii (lateral head)	R	NL	0	0	NL									
T10 paraspinal	R	NL	0	0	NL									
Vastus medialis	R	NL	0	0	NL									
Gastrocnemius (medial head)	R	NL	0	+/-	NL									
Tibialis anterior	R	NL	0	0	NL									
First dorsal interosseous (pedis)	R	NL	0	+/-	NL									

NERVE ULTRASOUND

Nerve	(Potential) Side	Site	Area (mm²)	NL	Segment	Area Ratio	NL	Mobility	Vascularity	Comments
Median	R	Wrist	14.7	< 12.0				Normal	Normal	
Median	R	Forearm	7.1		Wrist - Forearm	2.1	< 2.00			