



Patient: Sample Radiculopathy Case **DOB:** 7/7/1947 **Physician:** Dr. MD
Sex: Male

Diagnosis: Cervical radiculopathy M54.12

Complaint:

The patient complains of lower cervical pain and paresthesia in the left shoulder and lateral arm. There are no complaints of right sided symptoms or lower extremity symptoms and past medical history is negative for DM, vitamin deficiency, excessive ETOH, thyroid or other autoimmune disorders. A brief clarifying exam is performed prior to testing and temperature is maintained above 31C in the left upper extremity.

ELECTRONEUROMYOGRAPHIC SUMMARY

Nerve Conduction:

Sensory NCS: The left median, radial and ulnar nerves are WNL.

Motor NCS: The left median, radial and ulnar nerves are WNL.

Late Responses: The left median and ulnar F-waves are WNL.

Electromyography:

Using a monopolar needle electrode, sampling consisted of the dorsal primary rami innervated muscles from the left C5-T1 paraspinals as well as ventral primary rami innervated muscles of the C5-T1 myotomes in the upper extremity. Muscle membrane instability (fibrillation/positive sharp wave activity) was observed in the left C6-7 paraspinals, the left triceps and left FCR muscles. Paraspinal assessment was technically challenging due to decreased patient ability to consistently maintain electrical silence during assessment. All other muscles tested showed normal activity at insertion, rest and during voluntary recruitment.

Impression: (Abnormal Study)

- 1. Evidence suggests a mild acute left lower cervical radiculopathy (C6-7) that affects the dorsal and ventral primary rami.**
- 2. There is no evidence to suggest a polyneuropathy, plexopathy or focal entrapment.**



Nerve Conduction Studies**Anti Sensory Summary Table**

Site	NR	Peak (ms)	Norm Peak (ms)	O-P* Amp (µV)	Norm O-P Amp	Site1	Site2	Delta-P (ms)	Dist (cm)	Vel (m/s)	Norm Vel (m/s)
Left Median Anti Sensory (3rd Digit)											
Palm		1.8	<2.2	39.1	>10	Palm	3rd Digit	1.8	7.0	39	
Wrist		3.1	<3.6	32.2		Wrist	Palm	1.3	7.0	54	>39
Left Ulnar Anti Sensory (5th Digit)											
Wrist		2.6	<3.4	22.6	>10	Wrist	5th Digit	2.6	12.0	46	

Motor Summary Table

Site	NR	Onset (ms)	Norm Onset (ms)	O-P* Amp (mV)	Norm O-P Amp	Neg Dur (ms)	Site1	Site2	Delta-0 (ms)	Dist (cm)	Vel (m/s)	Norm Vel (m/s)
Left Median Motor (Abd Poll Brev)												
Wrist 8cm		3.6	<4.2	4.4	>2.8	5.63	Elbow	Wrist 8cm	3.7	21.5	58	>50
Palm		1.9		4.7		5.78	Wrist 8cm	Palm	1.7	5.5	32	>29
Elbow		7.3		4.0		5.94						
Left Radial Motor (Ext Ind Prop)												
Forearm 8cm		2.7	<3.0	7.2		7.66	Brachium	Forearm 8cm	3.2	20.0	63	>50
Brachium		5.9		7.1		7.50						
Left Ulnar Motor (Abd Dig Minimi)												
Wrist 8cm		2.8	<3.6	7.3	>4.2	5.00	B Elbow	Wrist 8cm	2.8	17.0	61	>49
B Elbow		5.6		7.0		5.31	A Elbow	B Elbow	1.9	10.0	53	>47
A Elbow		7.5		6.9		5.47						

Comparison Summary Table

Site	NR	Peak (ms)	O-P* Amp (µV)	Norm O-P Amp	Site1	Site2	Delta-P (ms)
Left Median/Radial Comparison (Digit 1)							
Median 10cm		2.6	23.0	>7uV	Median 10cm	Radial 10 cm	0.1
Radial 10 cm		2.5	7.6	>5uV			

F Wave Studies

NR	F-Lat (ms)	Lat Norm (ms)	L-R F-Lat (ms)	L-R Lat Norm
Left Median (Mrkrs) (Abd Poll Brev)				
	21.71	<33		<2.0
Left Ulnar (Mrkrs) (Abd Dig Min)				
	24.42	<36		<2.0

EMG

Side	Muscle	Nerve	Root	Ins Act	Fibs	Psw	Other	Amp	Dur	Poly	Recrt	Int Pat	Comment
Left	1stDorInt	Ulnar	C8-T1	Nml	Nml	Nml	Nml	Nml	Nml	0	Nml	Nml	
Left	FlexCarRad	Median	C6-7	Incr	1+	Nml	Nml	Nml	Nml	0	Nml	Nml	
Left	BrachioRad	Radial	C5-6	Nml	Nml	Nml	Nml	Nml	Nml	0	Nml	Nml	
Left	Triceps	Radial	C6-7-8	Incr	Nml	1+	Nml	Nml	Nml	0	Nml	Nml	
Left	Deltoid	Axillary	C5-6	Nml	Nml	Nml	Nml	Nml	Nml	0	Nml	Nml	
Left	ExtDigCom	Radial (Post Int)	C7-8	Nml	Nml	Nml	Nml	Nml	Nml	0	Nml	Nml	

Paraspinal EMG

Side	Muscle	Nerve	Root	Ins Act	Fibs	Psw	Other	Amp	Dur	Poly	Recrt	Int Pat	Comment
Left	C5-6	DPR	C5-6	Nml	Nml	Nml	Nml	NT'd	NT'd	NT'd	NT'd	NT'd	
Left	C6-7	DPR	C6-7	Incr	1+	1+	Nml	NT'd	NT'd	NT'd	NT'd	NT'd	
Left	C7-T1	DPR	C7,C8	Nml	Nml	Nml	Nml	NT'd	NT'd	NT'd	NT'd	NT'd	

Waveforms:



