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|-----------------|------------------|-------------|--|-------------------|--------|
| Patient: | Sample Study CTS | DOB: | | Physician: | Dr. MD |
| Sex: | Female | | | | |

Diagnosis: Carpal Tunnel Syndrome G56.02

Complaint:

The patient complains of nocturnal paresthesia in the left hand primarily in digits I to III. There are no complaints of cervical pain, right upper extremity or lower extremity symptoms. There is a past medical history of hypothyroidism. 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 nerve to digits I and III is delayed across the wrist with a low amplitude response to digit I. The left ulnar and left radial nerves are WNL.

Motor NCS: The left median nerve is delayed across the wrist with amplitudes WNL. The left radial and left ulnar nerves are WNL.

Late Responses: The left ulnar F-wave is WNL.

Electromyography:

Using a monopolar needle electrode, sampling consisted of ventral primary rami innervated muscles of the C5-T1 myotomes in the left upper extremity. All muscles tested showed normal activity at insertion, rest and during voluntary recruitment.

Impression: (Abnormal Study)

- 1. Evidence suggests a moderate focal mononeuropathy of the left median nerve across the wrist.**
- 2. There is no evidence to suggest a polyneuropathy, plexopathy or radiculopathy.**



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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 | | 2.1 | <2.2 | 14.3 | >10 | Palm | 3rd Digit | 2.1 | 7.0 | 33 | |
| Wrist | | 5.5 | <3.6 | 8.2 | | Wrist | Palm | 3.4 | 7.0 | 21 | >39 |
| Left Ulnar Anti Sensory (5th Digit) | | | | | | | | | | | |
| Wrist | | 2.6 | <3.4 | 35.3 | >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 | | 6.6 | <4.2 | 5.6 | >2.8 | 7.34 | Elbow | Wrist 8cm | 3.9 | 20.5 | 53 | >50 |
| Palm | | 1.7 | | 6.2 | | 7.66 | Wrist 8cm | Palm | 4.9 | 7.0 | 14 | >29 |
| Elbow | | 10.5 | | 5.3 | | 4.06 | | | | | | |
| Left Radial Motor (Ext Ind Prop) | | | | | | | | | | | | |
| Forearm 8cm | | 2.3 | <3.0 | 5.6 | | 8.44 | Brachium | Forearm 8cm | 2.9 | 20.0 | 69 | >50 |
| Brachium | | 5.2 | | 5.4 | | 8.13 | | | | | | |
| Left Ulnar Motor (Abd Dig Minimi) | | | | | | | | | | | | |
| Wrist 8cm | | 3.0 | <3.6 | 7.8 | >4.2 | 6.41 | B Elbow | Wrist 8cm | 2.3 | 16.0 | 70 | >49 |
| B Elbow | | 5.3 | | 7.8 | | 6.56 | A Elbow | B Elbow | 1.6 | 10.0 | 62 | >47 |
| A Elbow | | 6.9 | | 7.5 | | 6.56 | | | | | | |

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 | | 4.5 | 3.4 | >7uV | Median 10cm | Radial 10 cm | 2.2 |
| Radial 10 cm | | 2.3 | 13.4 | >5uV | | | |

F Wave Studies

| NR | F-Lat (ms) | Lat Norm (ms) | L-R F-Lat (ms) | L-R Lat Norm |
|-----------------------------------------|------------|---------------|----------------|--------------|
| Left Ulnar (Mrkrs) (Abd Dig Min) | | | | |
| | 21.71 | <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 | Abd Poll Brev | Median | C8-T1 | Nml | Nml | Nml | Nml | Nml | Nml | 0 | Nml | Nml | |
| Left | FlexCarRad | Median | C6-7 | Nml | Nml | 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 | Nml | Nml | Nml | Nml | Nml | Nml | 0 | Nml | Nml | |
| Left | Deltoid | Axillary | C5-6 | Nml | Nml | Nml | Nml | Nml | Nml | 0 | Nml | Nml | |

Waveforms:



