



## CASE STUDY III *Neck Pain Due to Auto Accident*

---

### **PATIENT HISTORY:**

Odette I. – 35 year old female who was the seat-belted driver in a motor vehicle accident that totaled her car. The patient reports headaches and neck pain that radiates into both shoulders and mid back. Patient also reports discomfort in her low back that radiates down to her buttocks. Both pain levels are 7 out of 10 on pain scale. Patient reports difficulty in her activities of daily living and sleeping. She also reports discomfort while at work and staying seated for prolonged periods of time. All other patient history is unremarkable.

### **EXAMINATION FINDINGS:**

Positive Orthopedic Tests indicating cervical&lumbar strain/sprain, cervicogenic headaches, and associated generalized muscle spasms due to trauma. (+Cervical Compression, +Cervical Distraction, +Shoulder Depression, +Maximum Cervical Compression, +4/5 Left Muscle Strength on Bicep-Tricep-Deltoid, Sensory Deficit on Left Arm; +Kemps, +Straight/Well Leg Raise, +3/5 Muscle Strength on Iliopsoas and Piriformis, +Milgrams, All Reflexes within Normal Limits) X-rays indicate change of curvature in both cervical and lumbar spine with soft tissue swelling. Malposition of vertebrae at multiple levels was noted with associated subluxation rotations.

### **DIAGNOSIS:**

Cervical Sprain/Strain with Radiculopathy, Lumbar Sprain/Strain, and Associated Hypertonicity in Paraspinal Musculature.

### **TREATMENT PLAN:**

#### *2 Months*

*1<sup>st</sup> Week* – treated patient a total of 5 times. Each visit consisted of ice therapy to reduce the inflammation in the soft tissue and pre-modulated interferential therapy to provide pain relief. Ancillary therapy was followed by a gentle manipulation to the cervical and lumbar spine. Once the patient's pain reduced to lower than 5 out of 10 on pain scale, therapy was changed from ice therapy to heat therapy to address low grade soreness and tightness.

*2<sup>nd</sup> Week* – treated patient a total of 4 times. Each visit consisted of heat therapy to reduce the tightness in the soft tissue and pre-modulated interferential therapy to provide pain relief. Ancillary therapy was followed by a gentle manipulation to the cervical and lumbar spine.

*3<sup>rd</sup> – 5<sup>th</sup> Week* – treated patient a total of 9 times. Each visit consisted of heat therapy to reduce the tightness in the soft tissue and Russian stimulation therapy to provide pain relief and strengthening of associated musculature. Ancillary therapy was followed by a gentle manipulation to the cervical and lumbar spine. Patient was given a protocol of cervical and lumbar stretches/exercises to address residual tightness. Patient was also prescribed a cervical orthopedic pillow to aid in relief while sleeping.

*6<sup>th</sup> – 8<sup>th</sup> Week* – treated patient a total of 5 times. Each visit consisted of heat therapy to reduce the tightness in the soft tissue and Russian stimulation therapy to provide pain relief and strengthening of associated musculature. Ancillary therapy was followed by a gentle manipulation to the cervical and lumbar spine.

### **OUTCOME:**

Complete resolution of headaches, neck pain, and low back pain. Patient was released and returned to full gainful employment with no permanent nor partial impairment.