

CERVICAL MUSCULOLIGAMENTOUS INJURY (Sprain/Strain)

I. BACKGROUND

These injuries may occur on the job, including operation of a motor vehicle as it relates to the patient's employment. Symptoms are believed to be related to a partial stretching or tearing of the soft tissues (muscles, fascia, ligaments, facet joint capsule, etc.). This may be associated, in addition to the neck pain, with vague upper extremity complaints. The recovery period is of variable duration, but generally is less than three or four weeks.

II. DIAGNOSTIC CRITERIA

A. Pertinent Historical and Physical Findings

The onset of neck pain and paraspinal muscle spasm begins either suddenly after the injury occurs or develops gradually over the next 24 hours. This pain is usually aggravated by motion of the neck and/or shoulder and frequently relieved by rest. The pain usually does not radiate below the shoulder. It can be accompanied by paresthesia or a sense of weakness in the upper extremities related to the muscle spasm in the neck. Physical findings include tenderness to palpation, spasm of the paravertebral muscles and aggravation of the pain with motion. Neurological examination and nerve root stretch tests are usually negative.

B. Appropriate Diagnostic Tests and Examinations

In general, anteroposterior, lateral, oblique, flexion and extension x-rays of the cervical spine and open mouth view to visualize the odontoid process are appropriate. Other x-rays may be added to the roentgenographic series as indicated. Straightening of the cervical spine is frequently observed on the lateral x-ray.

C. Inappropriate Diagnostic Tests and Examinations during the acute phase of the first 4 weeks

1. CT Scan
2. MRI
3. Bone Scan
4. Myelography
5. EMG in the absence of abnormal neurologic findings
6. Thermogram *
7. Evoked Potentials

* Never appropriate

III. TREATMENT

A. Outpatient Treatment

1. Non-operative Treatment

a. Indications: Almost all patients with cervical musculoligamentous (sprain/strain) can be treated satisfactorily. No indications exist for the use of surgery in the treatment of cervical musculoligamentous injury.

b. Treatment Options

- 1) Pain medication, non-narcotic
- 2) Muscle relaxants
- 3) Anti-inflammatory drugs, non-steroidal
- 4) Physical therapy and/or rehabilitative services*
- 5) Occasional trigger point injections may be helpful
- 6) Spinal manipulative therapy

c. Rehabilitation Procedures

- 1) Therapy may be initiated as early as the day of injury; indications for and focus of (early) intervention include:
 - a) acute management of pain/spasms;
 - b) limited use of passive modalities, except unlimited ice;
 - c) instruction in ROM/stretching exercises for neck/shoulder muscles;
 - d) assessment of return to work readiness and identifying necessary work modifications;
 - e) patient education in healing process and body mechanics.

Time Frame: May range from one visit only to ½ to 2 hours per day.

- 2) Inappropriate Treatments: Exclusive use of passive (palliative) modalities; TENS is not indicated.
- 3) For the (smaller) portion of workers, some may have unique job requirements necessitating a change in work duties or work skills retraining.

* Never appropriate

B. Inappropriate Treatment

1. Operative treatment is inappropriate for a cervical strain
2. Narcotic medication for a prolonged period of time
3. Inpatient treatment

C. Estimated Duration of Care: 1 to 4 weeks

D. Anticipated Outcome

1. Resumption of normal activity without residual symptoms in most cases

E. Modifiers (age, sex, and co-morbidity)

Co-morbidity (e.g. degenerative disc disease, spondylolisthesis, segmental instability, osteoporosis, spine deformity) may be associated with a higher incidence of persistent symptoms.

IV. If the patient has not responded to the above-outlined treatments in four weeks time, the patient must be referred to a Neurologist, Neurosurgeon, Orthopedic Surgeon, or Physiatrist. The specialist referred to above may order further diagnostic procedures, since the failure to respond to conservative treatment brings with it the distinct possibility of a different diagnosis such as a cervical disc.

NOTE: Cervical Musculoligamentous Injury (Sprain/Strain) will also include BACK SPASM, BACK SPRAIN, SUBLUXATIONS, FACET ARTHROPATHY, SPONDYLOLISTHESIS WITH NO NEUROLOGICAL INVOLVEMENT, HERNIATED INTERVERTEBRAL DISC WITH NO NEUROLOGICAL INVOLVEMENT, ANNULAR TEARS, MYOFASCIAL PAIN, SPINAL STENOSIS.

PROTOCOL HISTORY:

Passed: 9/1/1992
Amended: 5/17/1993
Amended: 11/19/2002
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