Dynamic Chiropractic – May 8, 1992, Vol. 10, Issue 10

Management of Cervical Discogenic Spondylosis -- Osteoarthritis of the Cervical Spine

By R. Vincent Davis, DC, PT, DNBPM

Cervical discogenic spondylosis consists of degeneration of the apophyseal joints and intervertebral disc joints with or without neurologic signs. Osteoarthritis of the articular facets is characterized by progressive thinning of cartilage, subchondral osteosclerosis, and osteophytic proliferation in the region of the joint margins.

Cervical disc degeneration occurs in adolescence, but is not demonstrated with significant frequency until after age 40, when it may present clinically with neurothlipsis. This is usually demonstrated radiographically by the presence of osteophytic projections into the intervertebral foramen, or by MRI into the spinal canal.

Soto Hall, foramina compression, Spurling's, and other neurological and orthopedic tests and signs may or may not be features of the history depending on the progress of the lesion. Complaints by the patient regarding related pain, paresthesias, dysesthesias, reduced ROM, and spasm are also dependent upon the extent to which the spondylosis has progressed.

In the very early phase, treatment may consist of cervical spine rest by providing a linear gravity pillow for resting and sleeping. In addition to segmental manipulation for closed reduction of lesions, either cortisone, or mecholyl, phonophoresis using pulsed low wattage modulation may be applied. Care should be taken to direct some of the sonation at the region of the facets and intervertebral foramen at the respective levels. The patient should be instructed in good postural habits relative to sitting, standing, and recumbency including the selection of firm, straight- back, posturally correct chairs. If there is much pain involved with concomitant radiculopathy, interferential current is an excellent choice of modalities for achieving electroanalgesia/anesthesia using the Davis procedure ("DC" November 15, 1988).

Since discogenic spondylosis is a progressive process, the symptom complex associated with this entity will probably undergo exacerbation/treatment amelioration. It is also common to achieve ameliorative therapeutic victory over one lesion complex only to have patients present a short time later with the exacerbation of their history involving another previously uninvolved segment.

As this process progresses into chronicity, it may be clinically beneficial to include cervical traction in the therapeutic regimen, being certain to instruct the patient to achieve a 20-30 degree anterior angle of the traction apparatus. This may be very helpful in relieving acute pain.

The wall-to-corner nose stretch is recommended as a therapeutic exercise to assist in musculoskeletal acclimation to recovery.

Radical intervention by surgical decompression of nerve roots may become necessary with the presence of significant neurologic deficit as demonstrated by EMG or SSEP. However, radical intervention is seldom necessary to achieve resolution of pain following the course of treatment described herein. Of course, the patient may continue to experience recurrent exacerbation even with the intervention of a well-planned therapeutic regimen.

References

Davis RV: Therapeutic Modalities for the Clinical Health Sciences, ed 1. Copyright -- Library of Congress, TX-389-661, 1983.

Griffin JE, Karselis TC: Physical Agents for Physical Therapists, ed 2. Springfield: Charles C. Thomas, 1982.

Krupp and Chatton: Current Medical Diagnosis & Treatment. Lange 1980.

Krusen, Kottke, Ellwood: Handbook of Physical Medicine & Rehabilitation, ed 2. Philadelphia: W.B. Saunders Company, 1971.

Schriber WA: A Manual of Electrotherapy, ed 4. Philadelphia: Lea & Feibiger, 1975.

R. Vincent Davis, D.C., BSPT, DNBPME
Independence, Missouri