Dynamic Chiropractic

EDUCATION & SEMINARS

Pearls From the Task Force on Neck Pain

Warren Hammer, MS, DC, DABCO

As reported in *DC* earlier this year, results from an excellent study on neck pain recently appeared in *Spine*.[1] It was based on the best-evidence syntheses of published studies on the risk, prognosis, assessment and management of people with neck pain and its associated disorders. A literature search found 1,203 peer-reviewed articles dealing with neck pain, and 552 were chosen as the best evidence on the assessment, treatment, course and prognosis of neck pain.

Some of the information may surprise the practitioner. The paper recommends and enumerates many more types of studies required to arrive at final conclusions. As one who delves into soft-tissue treatment, I wish there was more evidence as to the long-term benefits of soft-tissue evaluation and treatment. Many practitioners will wish that their technique or approach was included. However, for our science to advance, it is necessary for our own personal prejudices as to what works be evaluated by acceptable scientific criteria. The 12-member multidisciplinary Scientific Secretariat of the Task Force on Neck Pain and Its Associated Disorders, consisting of DCs, MDs, PhDs and PTs, is to be congratulated for an exhaustive in-depth treatise.

The information from the task force should be read in total, since this article in no way substitutes for the amount of information it contains. They clinically divided neck patients into four categories. Grade I was no signs of major pathology and little interference with activities of daily life. Grade II was no signs of major pathology with interference with daily activities. Grade III was neck pain with radiculopathy and Grade IV was neck pain with signs of major pathology such as "serious instability or spinal infection."[1]

What is very apparent is that chiropractic manipulation for neck pain is considered a primary treatment method compared to other modalities. "For whiplash-associated disorders (WAD), there is evidence that educational videos, mobilization, and exercises appear more beneficial than usual care or physical modalities. ... Therapies involving manual therapy and exercise are more effective than alternative strategies for patients with neck pain; this was also true of therapies which include educational interventions addressing self-efficacy."[2] For other neck pain (not due to WAD), "The evidence suggests that manual and supervised exercise interventions, low-level laser therapy, and perhaps acupuncture are more effective than no treatment, sham, or alternative interventions. However, none of the active treatments is clearly superior to any other in the short- or long-term."[2]

Regarding WAD, the studies found no relation between the severity of the crash and the onset of WAD. Nor did they find evidence supporting the idea that people with spinal degenerative changes had a higher risk for WAD. If degenerative disease is a cause of pain, it should be more frequent at older ages than at about age 49, which was the peak time of incidence. Degenerative changes on cervical MRI do not correlate with neck pain since these findings are commonly found in asymptomatic people. Whiplash protection devices that limited passenger head extension in rear-end collisions were associated with a reduction in WAD insurance claims.[3] There was slower recovery if there was greater initial pain and disability. The position of the head before the accident, type of headrest and direction of the collision were not prognostic for recovery in WAD.

No matter what treatment is received for neck pain, 50 percent to 85 percent of the general population will never experience a complete resolution of their pain. Fifty percent of those with WAD will report neck pain symptoms one year after their injuries. Middle-aged patients have the worst prognosis, while younger people have a better prognosis. There was preliminary evidence from two studies that general exercise at baseline was not associated with prognosis and regular bicycling created a poorer prognosis. Psychological factors such as anger, worry and frustration about pain had poorer prognosis.4 In non-emergency neck pain without radiculopathy, (grades I & II), the validity of most commonly used objective tests is lacking.[5] With radiculopathy, the manual provocation test (foraminal compression test) is one of the few tests during a physical examination that has a high positive predictive value.

Regarding some of the concepts that we might accept regarding the cervical spine, there is no evidence that the degree of cervical lordosis or kyphosis can accurately distinguish "cervical muscle spasm" or those with or without a recent whiplash. There is no scientific evidence that supports the use of surface electromyelography, dermatomal somatosensory-evoked responses or quantitative sensory testing in the diagnosis of radiculopathy. There is no evidence to support provocative disc injection to identify the involved disc. Extrusion of disc material through the cervical posterior longitudinal ligament found on MRI often does not agree with surgical findings. There is no evidence for the use of diagnostic facet joint injections for treatment or determining the source of cervical pain.5 Surprisingly, there was no scientific evidence that the use of prevention programs modifying workstations and worker posture reduced the incidence of neck pain.[6]

Cervical pain is a multifactorial problem and clearly, it is not currently possible to determine the absolute source of the pain, especially in the grade I and grade II classifications.

References

1. Guzman J. Haldeman S, Carroll LJ, et al. Decade 2000-2010 Task Force on Neck Pain and Its Associated Disorders. From concepts and findings to recommendations. *Spine,* 2008;33(4S)S199-213.
2. Hurwitz EL, Carragee EJ, van der Velde G, et al. Treatment of neck pain: noninvasive interventions. Results of the Bone and Joint Decade 2000-2010 Task Force on Neck Pain and Its Associated Disorders. *Spine*, 2008;33(4S):S123-52.
3. Holm LW, Carroll LJ, Cassidy DJ, et al. The burden and determinants of neck pain in whiplash-associated disorders after traffic collisions. *Spine*, 2008;33(4S):S52-9.
4. Carroll LJ, Hogg-Hohnson S, van der Velde G, et al. Course and prognostic factors for neck pain in the general population. Results of the Bone and Joint Decade 2000-2010 Task Force on Neck Pain and Its Associated Disorders. *Spine*, 2008;33(4S):S75-82.
5. Nordin M, Carragee EJ, Hogg-Johnson S, Weiner SS. Assessment of neck pain and its associated disorders. Results of the Bone and Joint Decade 2000-2010 Task Force on Neck Pain and Its Associated Disorders. *Spine*, 2008;33(4S):S101-22.
6. Cote P, van der Velde G, Cassidy JD, Carroll LJ. The burden and determinants of neck pain in workers. Results of the Bone and Joint Decade 2000-2010 Task Force on Neck Pain and Its Associated Disorders. *Spine*, 2008;33(4S):S60-4.

OCTOBER 2008