BRUCE G. BROUGHTON, D.C.
BRAY INTERNATIONAL, INC. RESEARCH

This study has taken selective cases in my practice to show the results of treating cervical spine disc herniations using the Vertebral Distraction Pump. This study will involve cervicobrachial syndrome caused by cervical disc herniations, which are producing upper extremity pain from the neck down the arm to the hand. Our examination revealed common findings associated with all the cases involved in this study. Our treatment protocol will be the same for all cases. We will use the general pain index and the neck pain disability index questionnaire to initially assess the patient condition. We will record the visual analog scale as determined by the patient on each treatment day. We will graph the cases to visualize the overall effectiveness of the Vertebral Distraction Pump. The graph will use the visual analog scale and number of treatments as the baselines.

To be accepted as a case study, the following must be present in the examination as positive findings.

1. Restriction in the range of motion of three or more motions with pain present upon the restricted motion.
2. Spinal percussion test that illicits radicular pain
3. Valsalva's maneuver with or without radicular pain
4. Shoulder depression test
5. Jackson's compression test
6. Shoulder abduction test
7. Of the tests listed in 2-6, 3 out the five must be positive for the case to be included in this study
8. MRI/CT scan confirmation optional but not mandatory

Treatment performed on all patients was the same and is as follows:

1. Patient placed in prone position with head flexed to approximate 10%; drop section head pieces can also be used to approximate 10%
2. Trigger point therapy over the cervical paraspinals according to patient tolerance, also T.P. therapy upon the scalene muscle group and the levator scapulae muscles bilateral. At this point if additional sedation is needed stimulation of the large intestine 4 acupuncture point via electric muscle stimulation can be done for 15-18 minutes.
3. Distraction of the herniated disc via the VDP
4. Adjusting the alteration in the triple joint complex via the Activator Adjusting Instrument (AAI) which I restrict to the vertebra above the herniation until the daily VAS is 50% of the initial VAS,
5. If myospams still persist at this point, I will use electric muscle stimulation over the levator scapulae, splenius cervicus and/or scalene group being careful not to stimulate the carotid reflex. This is applied to the symptomatic side of the spine.
6. Hot/cold therapy can also be applied over the herniated disc.

Listed are the average initial visual analog scale as determined by the patient, the average number of treatment needed to reach 2.0 on the visual analog scale and the average number of treatments needed to reach 1.0 on the visual analog scale.

When the patient reaches 2.0 on the VAS, they are put on supportive care to maintain the stabilization of the involved area. To be on supportive care means they can go through their daily routine with no restrictions and minimal discomfort.

Average initial visual analog scale: 8.56
Average number of treatments to reach 2.0 on the VAS: 3.40
Average number of treatments to reach 1.0 on the VAS: 5.50