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

# ABSTRACT

1. OBJECTIVE: Measure and document the effectiveness of the VDP in the treatment of post surgical exacerbation of the Lumbar Disc Hernations.
2. CLINICAL FEATURES: The five cases involve unsuccessful low back surgeries where Lumbar Discopathy was the object of the surgery. Spinal Fusion was not performed which allowed the mobility of the vertebral segments to remain.
3. INTERVENTION/OUTCOME: The hand held Vertebral Distraction Pump developed for the treatment of disc disorders was effectively administered in all five cases. A graph showing the visual analog scale vs. number of treatments reveals how the patient felt he/she responded to treatments. Subsequent examination verified the patients' response to treatment via the VDP. All patients continue to be seen on a PRN basis to maintain and ensure proper stabilization of the involved structures. All are taking part in the suggested home back care program to maintain their response to treatments.
4. CLOSURE: The hand held Vertebral Distraction Pump may be an effective instrument in the treatment and management of disc herniations that exacerbated after successful low back surgery was performed on that same disc.

These are the selective cases from my practice that involve treatment on post surgical cases that were successful in their attempt to alleviate painful low back and radicular pain syndrome. These cases were taken to show effectiveness of the Vertebral Distraction Pump (VDP) in treatment of low back and leg pain conditions that surgery was unsuccessful in treating. All the patients in this study were diagnosed with disc herniations. The surgery was performed and following a period of time not exceeding six (6) months, the symptoms returned at an equal or greater degree that they were at prior to the surgery. MRI diagnosis confirmed the herniations were present as well as a thorough Orthopedic/Neurological exam. The treatment protocol was the same for all cases treated. The Roland-Morris and Oswestry forms were used to determine the extent of the impact the disc herniations were having on the ability of the patients to go through their daily routine. The visual analog scale was also used (without restrictions). A management program was different for each patient, but the goal was the same – keeping the patient functional without any restrictive symptomology. From the results we have seen, the VDP may be a very effective tool in stabilizing unsuccessful low back surgery providing no fusion was performed surgically r fusion via spinal calcifications.

Inclusive criteria were chosen that each post surgical case selected met the criteria are listed as follows:

1. Must be post surgical case with re-occurring disc herniation accompanied by Radicular Symptomology. Herniation of the same disc the surgery was performed on.
2. Three or more of the following Ortho/Neuro test positive.

    a. Valsalva/Bechterews
    b. Kemps
    c. Straight Leg Raise
    d. Fajersztajns
    e. Braggards
    f. Heel/Toe Walk
    g. Decrease Achilles/Patellar reflex
3. Primary pain localizes to the lumbar spine with radicular pain associated with the disc lesion dermatome.
4. No prior chiropractic treatment for present episode of LBP with radiculitis.
5. A listing of nine or above on the initial visual analog scale, which is determined by the patient.
6. Must have severe disability rating according to the Roland-Morris acute low back pain disability questionnaire.
7. Must be over 55 years old.

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

1. Patient placed in prone position with SOT blocks placed beneath the ASIS bilateral to approximate 10 degrees flexion.
2. Trigger point therapy over the lumbar paraspinals, gluteal group, piriformis, hamstrings, gastrocnemius as well as mild gouding over BL 54 and Kl1
3. Electric muscle stimulation (EMS): positive pad over the involved disc and BL 54 with negative pads over the gluteal muscle belly/piriformis muscle belly and K1 on the involved extremity.
4. Distraction of the involved disc via the VDP.
5. Adjustment of the alteration of the triple joint complex via the Acticator Adjusting Instrument.
6. Repeat EMS over points listed din number 3.

Listed are the average initial visual analog scale (VAS) as determined by the patient and the number of treatments rendered to dismiss the patient to supportive care. Supportive care was categorized as the care necessary to maintain the patient in the minimal disability category. The patient must be able to go through a daily routine without restrictions to be put in this category.

Average initial VAS of the patients included in this study: 9.7
Average number of treatments to reach 2.0 VAS: 10.6
Average number of treatments to reach 1.0 VAS: 14.8