

R + C Factors and Sacro-occipital Technique Orthopedic Blocking A Pilot Study

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Since the early 20th century, some within the chiropractic profession have posited that there is a functional relationship between the lumbar and cervical vertebra and have incorporated this concept into methods of evaluating and treatment. This concept of a systematic or predictive relationship between distant vertebral levels distinct from accumulative functional compensatory mechanisms, such as in scoliosis, is perpetuated based on observation and clinical experience without published report of any systematic study.

OBJECTIVE

This study seeks to investigate this relationship between the cervical and lumbar vertebra.

METHODS

Patients were selected from the patient base of a private practice, and were limited to patients who had sensitivity at specific cervical reflex points. Using the visual analog scale (VAS) as an outcome measurement, sensitivity was noted at specific points of the cervical vertebra. In accordance with sacro-occipital technique R + C protocol, the related lumbar vertebra was adjusted opposite to the direction indicated by the cervical vertebral sensitivity. VAS measurements were recorded before and after lumbar manipulation.

RESULTS

A total of 38 patients were enrolled in this pilot study: 26 in the experimental group and 12 in the control group.

Raw data from the VAS recordings were entered into SPSS, version 12.0 with a 10% check for accuracy performed. Mean change in sensitivity as measured by VAS was notably larger for the experimental group. The data were checked for normality to determine whether parametric testing would be appropriate. Both the Kolmogorov-Smirnov and Shapiro-Wilk tests indicated that the data were normally distributed. The authors tested whether there was a statistically significant difference between mean VAS upon study entry. A *t* test demonstrated that there was no statistically significant difference ($p = .189$). This was important as there should not be a statistically significant difference between the two groups' pretest VAS measurement to be present at the outset or this might bias any interpretation of the study's posttest findings. A *t* test was then used to determine whether there was a statistically significant difference between pre- and post-VAS measurements and the findings indicated that there was a notable difference in mean VAS scores between the experimental and control groups ($p < .001$).

DISCUSSION

In an attempt to develop a biological plausibility to the R + C factor and orthopedic block treatment phenomena found clinically, some hypotheses have been proposed. They include fascial and myological interrelationships; referred pain patterns; facilitating tonic neck reflexes involving intersegmental spinal pathways; and visual, vestibular, proprioceptive, and plantar mechanoreceptors affecting righting mechanisms for posture of the cervical region. The findings of this study suggest that further research into cervical and lumbar vertebra interrelationships as well as orthopedic block placement and treatment may be warranted.

