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The Effect of Chiropractic Adjustment on Serum Immunoglobulin M levels

The authors of this paper, both from the Anglo-European College of Chiropractic, previously presented this paper at an ECU conference in Athens, 2000. The paper has now been reproduced in the latest edition of the European Journal of Chiropractic (EJC 2003;48:55-6) as a conference proceeding.

The authors, Dr. David Owen and Dr. George Rix, hypothesized that,

1. Thoracic spinal dysfunction (subluxation), and any segmentally associated increased sympathetic tone may result in a down-regulation of splenic B- cell activity and a lowering of serum IgM,
2. If any intervention of chiropractic spinal adjusting is effective in reducing this autonomic dysfunction, then an increase in serum IgM would result post-intervention.

Sixty healthy students were recruited for this study. Twenty were randomly chosen for a control group who received no intervention. The remaining 40 students had their thoracic and lumbar spine function assessed via static and motion palpation. Depending on findings they were assigned to one of two groups - a thoracic group or a lumbar group.

The main outcome measure was serum IgM. The secondary outcome measure was psychological stress.

Baseline data was collected (day 0) and two weeks later the intervention period began. This consisted of diversified chiropractic adjustment delivered by an experienced chiropractor to the pre-listed regions of subluxation on days 15, 19,23, and 26. Further data was then collected on days 30 and 37. A total of 35 subjects completed the study: 12 in the thoracic group, 10 in the lumbar group, and 14 in the control group.

The thoracic group showed an 11% increase in serum IgM levels at day 30 and a 22% increase at day 37. This was a statistically significant result.

The lumbar group showed a 2% increase in serum IgM levels at day 30 and a 16% increase at day 37. This was not a statistically significant result.

The control group did not show any trend or statistically significant change. The authors conclude,

“The results of the present study indicate that a short course of thoracic chiropractic spinal adjusting in subjects with spinal dysfunction may result in arise in serum IgM that is maintained for a period of days post-intervention”.

Reference:

Owen DE, Rix GDW. The effect of Chiropractic manipulation on serum levels of Immunoglobulin M. European J Chiropr 2003;48:55-6.