

FACT SHEET

SOMATO-SYMPATHETIC RESPONSES TO CHIROPRACTIC ADJUSTMENTS IN A MODEL OF CERVICAL DISC DEGENERATION

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Research Project Summary

Project Complete

Chiropractic theories advocate that physiologic effects of chiropractic adjustments have an effect upon the sympathetic nervous system (SNS). These theories are used to explain the mechanisms to justify the clinical benefits observed in patients with Type O disorders receiving chiropractic care.

Because a validated research model of vertebral subluxation has yet to be defined, the objective of this study is to examine the effects of chiropractic adjustments on somato-sympathetic responses in an ovine model of cervical disc degeneration.

Not only is cervical disc degeneration a common spinal condition affecting human kind, it also provides a unique opportunity to study a subgroup of vertebral subluxation, characterized by altered mechanical loading with biochemical consequences.

Impact of Research

Presentations

- Colloca CJ, Kuliwaba JS, Freeman BJ, Gunzburg R, Afifi Hegazy M, Hinrichs RN. Biomechanical evaluation of a cervical intervertebral disc degeneration model: part 1 – histological analysis (Oral Presentation). Proceedings of the 2016 Association of Chiropractic Colleges Educational Conference and Research Agenda Conference (ACCRAC), Orlando, Florida, USA, March 17-19, 2016. J Chiropr Educ 2016; 30(1):54-5.
- Colloca CJ, Gunzburg R, Freeman BJ, Harrison DE, Afifi Hegazy M, Hinrichs RN. Biomechanical evaluation of a cervical intervertebral disc degeneration model: part 2 – in vivo biomechanical testing (Oral Presentation). Proceedings of the 2016 Association of Chiropractic Colleges Educational Conference and Research Agenda Conference (ACCRAC), Orlando, Florida, USA, March 17-19, 2016: J Chiropr Educ 2016; 30(1):55.

- Colloca CJ, Gunzburg R, Freeman BJ, Harrison DE, Afifi Hegazy M, Hinrichs RN. Biomechanical evaluation of a cervical intervertebral disc degeneration model: part 3 – spinal manipulative therapy (Oral Presentation). Proceedings of the 2016 Association of Chiropractic Colleges Educational Conference and Research Agenda Conference (ACCRAC), Orlando, Florida, USA, March 17-19, 2016: J Chiropr Educ 2016; 30(1):55.
- Colloca CJ, Kuliwaba JS, Gunzburg R, Hegazy MA, Freeman BJC. Multi-level histological analysis of an ovine cervical spine intervertebral disc degeneration model (Oral Presentation). Proceedings of the 27th Annual Scientific Meeting of the Spine Society of Australia, Melbourne, Australia, April 8-10, 2016: in press.
- Colloca CJ, Kuliwaba JS, Freeman BJC, Gunzburg R, Hegazy Afifi M, Hinrichs R. Does disc injury lead to progression of cervical disc degeneration? Histological analysis in an ovine model (Oral Presentation). Proceedings of Spineweek – The North American Spine Society, Singapore, May 16-20, 2016: in press.