

Low-level laser therapy reduces time to ambulation in dogs after hemilaminectomy: a preliminary study

W. E. DRAPER, T. A. SCHUBERT, R. M. CLEMMONS AND S. A. MILES

Department of Small Animal Clinical Sciences, College of Veterinary Medicine, University of Florida, Gainesville, FL, USA

OBJECTIVES: A prospective study to determine if low-level laser therapy and surgery for intervertebral disk herniation encourage ambulation faster than surgery alone.

METHODS: Thirty-six dogs with acute paraparesis/paraplegia due to acute intervertebral disk herniation were evaluated and given a modified Frankel score. Dogs with scores 0 to 3 were included in the study. Dogs were assigned to the control group (1) or the laser treatment group (2) based on alternating order of presentation. All dogs underwent surgery for their herniated disk. Dogs in group 2 were treated postoperatively with low-level laser therapy daily for five days, or until they achieved a modified Frankel score of 4. A 5×200-mW 810-nm cluster array was used to deliver 25 W/cm² to the skin. All dogs were scored daily by the investigators using the modified Frankel scoring system.

RESULTS: The time to achieve a modified Frankel score of 4 was significantly lower ($P=0.0016$) in the low-level laser therapy group (median 3.5 days) than the control group (median 14 days).

CLINICAL SIGNIFICANCE: Low-level laser therapy in combination with surgery decreases the time to ambulation in dogs with T3-L3 myelopathy secondary to intervertebral disk herniation.

Journal of Small Animal Practice (2012) **53**, 465–469
DOI: 10.1111/j.1748-5827.2012.01242.x

Accepted: 12 May 2012; Published online: 11 July 2012