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PAIN REDUCTION MEASURED BY GROUND FORCE PLATE IN ARTHRITIC DOGS TREATED WITH TYPE-II COLLAGEN.

R.C. Gupta¹, M. Barnes¹, J. Minniear¹, J. Lindley¹, J.T.Goad¹, T.D. Canerdy², M.Bagchi², and D. Bagchi². ¹Toxicology, Murray State University, Hopkinsville/Murray, KY; ²InterHealth Research Center, Benicia, CA.

Presently, one in four of 77 million pet dogs in the United States is diagnosed with some form of arthritis. In dogs, osteoarthritis is more common than rheumatoid arthritis and pain is the number one complaint. This investigation evaluated therapeutic efficacy and safety of glycosylated undenatured type II collagen (UC-II) in moderately arthritic dogs that received daily placebo or 40 mg type II collagen (10 mg active UC-II) for a period of 120 days, followed by a 30 day withdrawal. On a monthly basis, dogs were evaluated for overall pain, pain upon limb manipulation, and pain after physical exertion. In addition, pain was measured using Ground Force Plate (peak force and impulse area). Dogs on placebo exhibited no significant change in arthritic conditions. Following 120 days treatment with UC-II, dogs showed significant decreases in overall pain (77%) and pain after limb manipulation (83%) and exercise (84%). With Ground Force Plate, peak vertical force value elevated from 7.467 ± 0.419 to 8.818 ± 0.290 Newtons/kg body wt, and impulse area elevated from 1.154 ± 0.098 to 1.670 ± 0.278 Newtons Sec/kg body wt, suggesting increase in g-force and decrease in level of pain. Dogs receiving placebo or UC-II showed no adverse effects in liver, kidney and heart functions (bilirubin, ALT, creatinine, BUN and CK), or changes in body weight, heart rate, respiration rate, or temperature. In conclusion, UC-II significantly reduced arthritic pain and is well tolerated.