Dose-titration effects of fish oil in osteoarthritic dogs.

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Abstract

BACKGROUND: Food supplemented with fish oil improves clinical signs and weight bearing in dogs with osteoarthritis (OA).

OBJECTIVE: Determine whether increasing the amount of fish oil in food provides additional symptomatic improvements in OA.

ANIMALS: One hundred and seventy-seven client-owned dogs with stable chronic OA of the hip or stifle.

METHODS: Prospective, randomized clinical trial using pet dogs. Dogs were randomly assigned to receive the baseline therapeutic food (0.8% eicosopentanoic acid [EPA] + docosahexaenoic acid [DHA]) or experimental foods containing approximately 2- and 3-fold higher EPA+DHA concentrations. Both veterinarians and owners were blinded as to which food the dog received. On days 0, 21, 45, and 90, serum fatty acid concentrations were measured and veterinarians assessed the severity of 5 clinical signs of OA. At the end of the study (day 90), veterinarians scored overall arthritic condition and progression of arthritis based on their clinical signs and an owner interview.

RESULTS: Serum concentrations of EPA and DHA rose in parallel with food concentrations. For 2 of 5 clinical signs (lameness and weight bearing) and for overall arthritic condition and progression of arthritis, there was a significant improvement between the baseline and 3X EPA+DHA foods (P=.04, .03, .001, .0008, respectively) but not between the baseline and the 2X EPA+DHA foods.

CONCLUSIONS AND CLINICAL IMPORTANCE: Increasing the amount of fish oil beyond that in the baseline food results in dose-dependent increases in serum EPA and DHA concentrations and modest improvements in the clinical signs of OA in pet dogs.