Clinical evaluation of powder of quality elk velvet antler for the treatment of osteoarthrosis in dogs.

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The purpose of this study was to scientifically evaluate the health benefits of quality elk velvet antler (Qeva) by administering it to dogs afflicted with osteoarthrosis. Osteoarthrosis (OA) is a common and painful musculoskelatal condition in dogs, often secondary to structural abnormalities, such as hip or elbow dysphasia or ligament injury. It is characterized by erosion of articular surfaces, bone sclerosis, and osteophyte production, leading to pain, joint stiffness, and muscular atrophy.

Velvet antler refers to elk or deer antlers harvested in the velvet stage of growth. Elk velvet antler powder is prepared from the inner cartilaginous matrix following drying and removal of the velvet covering. Velvet antler contains mineral and trace elements, growth hormones and growth factors, protein, collagen, lipids and glycosaminoglcans including chondroitin sulfate and glucosamine sulfate. Velvet antler has been demonstrated to exhibit an anti-inflammatory effect in a rodent model of inflammation.

The recommended dosage of elk velvet antler is 15 to 20 mgs per kg body weight once or twice per day.

Materials & Methods

Dogs weighing more than 20kg and older than 18 months with radiographic evidence of OA in one ore more joints and clinical signs confirmed by an orthopedic examination were included in the study. The dogs were recruited from the medical files of the Veterinary Teaching Hospital, Universite of Montreal. The owners were asked to complete an assessment of daily activities of their dogs to generate a score for activity performances. The gait of each dog was analyzed by use of biomechanical force plate in a 10 m runway connected to a computer to measure the ground reaction force (GRF) for the most severely affected joint. The surgeon's assessment of the walking gait, posture, mobility, muscular atrophy, joint pain and visual appreciation was converted to numerical scores. Radiographic evaluation of elbows, hops and stifles was performed under routine sedation for all dogs and was also assigned a numerical score.

Study Protocol

A double- blind and placebo- controlled study design was used. Forty- five dogs with OA were randomly assigned to one of two experimental groups. Thirteen dogs were used in the placebo- Qeva group where they received a placebo for 30 days and then were given Qeva for the next 60 days. The Qeva group included 25 dogs, which received Qeva for 60 days. Dogs between 20 and 30.9 kg, 40 to 59.9 kg, and 60 to 70.9 kg received 2, 3 and 4

capsules of Qeva respectively by mouth every 12 hours. Each capsule contained 280 mgs of powdered elk antler. Gait analysis, GRF analysis and daily activities assessments performed at days 0, after 30 days of placebo and/pr 60 days of Qeva.

Results

Age, weight, GRF, duration of clinical signs, radiographic findings and assessment scores were not significantly different between the groups at the start of the trial. After 30 days of treatment with placebo, GRF and gait analysis and activity assessment scores were not significantly different from day 0. However, following 60 days of treatment with Qeva, the GRF analyses were significantly improved compared to pretreatment results and significantly exceeded the results obtained for dogs on placebo. Owner's assessments of daily activities were significantly improved compared to both pretreatment scores and the group receiving the placebo. The selected hematological and biochemical parameters revealed no evidence of abnormalities of clinical relevance following administration of placebo or Qeva and the owners reported no side effects to their administration,

Seven dogs did not complete the study. Four were determined to be unsuitable for candidates for the study. Three dogs died from causes the authors considered unrelated to Qeva treatment.

Conclusions

The authors concluded that the administration of Qeva was effective in alleviating in the condition in arthritic dogs. They further stated that consideration should be given to the use of Qeva in the treatment of canine OA. Although Qeva contains chondroitin sulfate, the authors, in a previous study, were unable to demonstrate significant gait improvement with chondroitin sulfate in greater amounts than the raw material administered in this study. They observed that administration of Qeva resulted in a significant reduction of muscle atrophy, suggesting a myotrophic effect for velvet antler.

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