Assessing Left Atrial Enlargement

Thoracic radiography can help assess heart size/shape, pulmonary vasculature, and signs of congestive heart failure, such as enlarged left atrium between 2 caudal lobe stem bronchi. The tracheal bifurcation angle is formed between stem bronchi. As the left atrium is localized to the midline, widening of the angle on a DV radiograph may be a sign of left atrial enlargement, causing lateral and cranial divergence of the 2 caudal lobe stem bronchi. The correlation between left atrial enlargement and bifurcation angle in dogs is unknown.

This study compared tracheal bifurcation angle between normal dogs and dogs with known mitral valve disease and left atrial enlargement. The tracheal bifurcation angle measurement has relatively good intraobserver repeatability, but sensitivity of detection and interpretation were poor because of the subjective nature of assessing DV radiographs. A large degree of overlap of tracheal bifurcation angle also existed between normal and mild, moderate, or severe left atrial enlargement, making it a poor test for diagnosing left atrial enlargement.

Commentary
Subjective and objective radiographic imaging is important when considering examination and auscultation results. Secondary radiographic changes ideally correlate with and support suspicions from abnormal examination and auscultation findings. For example, if a left apical systolic murmur is auscultated, radiographs may demonstrate concomitant subjective and objective abnormalities. Subjective findings (eg, caudodorsal convexity on lateral views, caudal convexity on DV/VD views) may be present despite normal objective radiographic criteria. Regardless of radiographic findings, echocardiography and consultation with a cardiologist are suggested when diagnosing and managing cardiac murmur. —Kenneth R. Waller III, DVM, MS

Source

Fighting Parasite Infections
An oral tablet containing spinosad (flea adulticide) and milbemycin oxime (MO; macrocyclic lactone endectocide) is being developed for prevention of canine heartworm disease and treatment of flea infestations and adult intestinal nematode infections. Study objectives included effectiveness of spinosad and MO in combination or individually against 2 dose-limiting parasites (Ctenocephalides felis for spinosad, Ancylostoma caninum for MO) and demonstrating noninterference of each when used in combination against the 2 parasites. The dogs (n = 80) received spinosad alone, MO alone, spinosad–MO combination, or placebo. Spinosad and spinosad–MO were equally efficacious against fleas. MO and spinosad–MO demonstrated similar efficacy against A caninum. It was concluded that spinosad–MO did not inhibit the ability to treat and control fleas and adult hookworm infections.

Source
Dose confirmation and non-interference evaluations of the oral efficacy of a combination of milbemycin oxime and spinosad against the dose limiting parasites, adult cat flea (Ctenocephalides felis) and hookworm (Ancylostoma caninum) in dogs. Snyder DE, Wiseman S. VET PARASITOL 184:284-290, 2012.