

The Lasix Trials

The Lasix Trials starring starring Tom Cruise.... Ok, well not exactly, but still worth reading about. Have you ever struggled with differentiating primary pulmonary disease from primary left sided hear failure based on radiographs? I know I have, But fret no longer. I bring you the Lasix Trial.

Take for example: A 10 year old, male neutered westie that presents with a resting respiratory rate of 64 breaths per minute. On physical examination a grade 4/6 left apical systolic, and grade 3/6 right sided systolic murmur is ausculted. Thoracic radiographs are taken and cardiomegaly is noted with apparent left atrial enlargement. A very mild, hazy bronchointerstitial pulmonary pattern is present with poor definition to the pulmonary vasculature. What's your diagnosis? UGH...I know right?!?

No worries. Most of these cases can be sorted out with a lasix trial. Here are the steps:

STEP 1:

Obtain your thoracic radiographs (3 view) as well as a baseline renal panel with electrolytes and urinalysis with a urine specific gravity.

STEP 2:

Initiate Lasix (in dogs) at 2 mg/kg PO BID. Have the owners keep track of the resting respiratory rates at home.

STEP 3:

Have the owners return in 5 to 7 days for a physical exam, report on how the dog has been doing and for thoracic radiographs (right lateral and v/d).

STEP 4:

If the pulmonary interstitial pattern (haze) has resolved and the dog is breathing more comfortably, then you have a positive trial. Continuing the lasix and Initiating additional heart failure medications is warranted. Be sure to do a follow-up renal panel with electrolytes to ensure the patient is tolerating the dose of lasix.





The Trial Continues

DON'T STOP... KEEP READING....

DID YOU KNOW?

- 1) It is important to take follow-up rads for your lasix trial as clinical improvement does not necessarily indicate a response to heart failure:** lasix has some bronchodilatory effects. Therefore, dogs with primary respiratory disease may begin to breathe more comfortably with lasix. **You need** the radiographs to confirm improvement, or hopefully resolution, of the pulmonary interstitial pattern to complete your lasix trial. Always remember, left sided heart failure is a radiographic diagnosis.
- 2) An echocardiogram is a very helpful diagnostic tool for these cases as well.** An echocardiogram, preferably before initiating lasix, will provide information about the cause of the murmur, the stage of the disease (heart size and function), an indirect measurement of left atrial pressure, which translates to concern for onset of pulmonary edema, and serve as a baseline for creating a cardiac care plan for this patient.
- 3) Cardiologists can be instrumental in helping differentiate primary pulmonary disease from heart failure** by performing the echocardiograms and helping interpret the radiographic changes. Never hesitate to engage the assistance of a veterinary cardiologist for respiratory cases when you are unsure of the cause. We can help rule in, or out, heart failure.

Veterinary Cardiology Specialists is here to help. If you would like to submit films for interpretation, or have us come out and do an on-site cardiac evaluation, just call: 612 353 7440.