Title: Prevalence of Gastroduodenal Erosions in Dogs Receiving Chronic NSAID Therapy

Investigators:
Tracy L. Hill, DVM DACVIM PhD DipECVIM-CA
Steven C. Budsberg, DVM MS DACVS
If interested please contact Dr. Hill via email at Tracy.Hill@uga.edu. Referring veterinarians may call the small animal referral coordinator at 706-542-5362.

Study description:
Non-steroidal anti-inflammatory drugs (NSAIDs) are one of the most common drug classes used in small animal veterinary medicine. Despite their widespread use, little is known about the incidence of gastrointestinal erosions and ulcers in clinical patients. A new veterinary specific capsule endoscope, ALICAM®, allows for the detection of gastroduodenal lesions in a non-invasive manner, without the need for general anesthesia (as would be required with endoscopy). ALICAM® has been previously validated in dogs to assess the gastrointestinal mucosa and assess transit time. This study will investigate the rate of gastroduodenal erosions and ulcers in dogs receiving chronic NSAID therapy using the ALICAM® capsule endoscopy system.

Inclusion criteria:
Thirty dogs that weigh between 25-45 kg (55-100 pounds), are 2-8 years of age, and have received daily Metacam® (meloxicam), Rimadyl® (carprofen), Previcox™ (firocoxib), Feldene® (piroxicam), or Deramaxx™ (deracoxib) therapy for at least 30 days will be eligible for enrollment in the study. Dogs that are concurrently receiving acid suppressant or gastroprotectants (H2-receptor antagonists, proton pump inhibitors, sucralfate, magnesium or aluminum hydroxide), or exogenous corticosteroids within the previous 30 days will be excluded. Dogs with a previous history of chronic gastrointestinal, renal, or liver disease will be excluded.

Dogs will be screened prior to initiation of the study and will receive a complete blood count, serum biochemistry profile, urinalysis and post-prandial bile acids to confirm the absence of systemic disease. A zinc-sulfate centrifugal fecal float will be performed on every dog; any dogs that have a positive sample will be dewormed and eligible for re-enrollment after an additional 30 days.

After a 16-24-hour fast, dogs will be orally administered an ALICAM® capsule during a follow up visit to UGA. Owners will be asked to monitor the feces for passage of the capsule for the next 4 days until the capsule can be retrieved from the feces and returned for processing. Images will be evaluated by Dr. Hill for mucosal changes in the stomach and small intestine, and presence or absence of mucosal lesions.

The costs of the ALICAM® capsule, initial visit fee, labwork (including complete blood count, chemistry profile, urinalysis, fecal float and bile acids), and pre-paid mailer for return of the capsule will be paid for by the study.

Duration of study:
This study is currently OPEN.

Potential benefits to veterinary medicine:
There are no clinical prospective studies examining the rate of subclinical erosions in dogs receiving
chronic NSAID therapy. Results from this pilot study will establish preliminary prevalence of gastrointestinal lesions with chronic NSAID use which would be of benefit to every small animal veterinary practitioner.

**Potential benefits to the pet:**
In people, ulcers can be detected where there are no clinical signs. This study should establish whether, for each dog, the NSAIDs are being well tolerated with no subclinical ulcers. In addition, each dog receives complimentary physical examination and systemic health screening labwork.