

Uremic Gastropathy in Cats

GI signs associated with feline chronic kidney disease (CKD) are commonly attributed to uremic gastropathy; antacids and gastroprotectants are therapy mainstays. However, research on the prevalence and pathogenesis of uremic GI disease in cats is incomplete, with treatment regimens often based on findings in dogs and humans. This study evaluated uremic gastropathy in feline CKD to reevaluate medical management guidelines. Thirty-seven CKD cats and 12 nonazotemic cats were evaluated. Serum creatinine concentrations, calcium-phosphorus product (CPP), and serum gastrin concentrations were recorded. At necropsy, gross and histologic evaluation for the presence of classic uremic gastropathy lesions were performed.

Severely azotemic cats (serum creatinine >5.0 mg/dL) had significantly higher CPP compared to all other cats. No change was noted when cats receiving phosphate binders were excluded. CKD cats had significantly higher serum gastrin concentrations than controls; no change was noted when cats receiving antacid treatment were excluded. No gross or histologic evidence of gastric mucosal ulcerations, hemorrhage, edema, or vascular fibrinoid change was observed in CKD or control cats. However, gastric fibrosis and mineralization were observed more frequently in CKD cats.

Results suggest that GI signs in feline CKD may be caused by uremic toxins and centrally acting emetogens rather than gastric lesions, potentially supporting management with antiemetic and anti-nausea medications over gastroprotectants. The presence of gastric mineralization, likely from metastatic mineralization, may highlight the need for more aggressive control of hyperphosphatemia and renal secondary hyperparathyroidism. The role of hypergastrinemia also needs further study.

Commentary

There are many postulated causes for the GI signs of uremic animals—many borrowed from human medical studies—but there are few studies elucidating the actual causes of anorexia and vomiting in chronically azotemic cats. Cats resent being administered most forms of medication so insights that would reduce the number and amount of medications could be important. This study suggests that gastric protectants and H₂-blockers may not be helpful and that antiemetic and antinausea drugs might be more appropriate; however, the latter is pure conjecture because this aspect was not studied. Increased calcium-phosphorus product was associated with gastric mucosal mineralization, so early control of elevated serum phosphorus levels with diet and phosphate binders seems logical.—*David F. Senior, BVSc, DACVIM, DECVIM (Companion Animal)*

Source

Relationship among serum creatinine, serum gastrin, calcium-phosphorus product, and uremic gastropathy in cats with chronic kidney disease. McLeland SM, Lunn KF, Duncan CG, et al. *JVIM* 28:827-837, 2014.

quellin™
(carprofen)

soft chewable tablets

Non-steroidal anti-inflammatory drug
For oral use in dogs only

BRIEF SUMMARY:

Before using quellin soft chewable tablets, please consult the product insert, a summary of which follows:

CAUTION: Federal Law restricts this drug to use by or on the order of a licensed veterinarian.

PRODUCT DESCRIPTION: quellin (carprofen) is a non-steroidal anti-inflammatory drug (NSAID) of the propionic acid class that includes ibuprofen, naproxen, and ketoprofen.

INDICATIONS: Carprofen is indicated for the relief of pain and inflammation associated with osteoarthritis and for the control of postoperative pain associated with soft tissue and orthopedic surgeries in dogs.

CONTRAINDICATIONS: Carprofen should not be used in dogs exhibiting previous hypersensitivity to carprofen.

WARNINGS: Keep out of reach of children. Not for human use. Consult a physician in cases of accidental ingestion by humans. For use in dogs only. Do not use in cats. All dogs should undergo a thorough history and physical examination before initiation of NSAID therapy. Appropriate laboratory tests to establish hematological and serum biochemical baseline data prior to, and periodically during, administration of any NSAID should be considered.

PRECAUTIONS: As a class, NSAIDs may be associated with gastrointestinal, renal and hepatic toxicity. Effects may result from decreased prostaglandin production and inhibition of the enzyme cyclooxygenase which is responsible for the formation of prostaglandins from arachidonic acid. When NSAIDs inhibit prostaglandins that cause inflammation they may also inhibit those prostaglandins which maintain normal homeostatic function. These antiprostaglandin effects may result in clinically significant disease in patients with underlying or pre-existing disease more often than in healthy patients. Carprofen is an NSAID, and as with others in that class, adverse reactions may occur with its use. The most frequently reported effects have been gastrointestinal signs. Vents involving suspected renal, hematologic, and neurologic, dermatologic, and hepatic effects have also been reported. Concomitant use of carprofen with other anti-inflammatory drugs, such as other NSAIDs or corticosteroids, should be avoided because of the potential increase of adverse reactions, including gastrointestinal ulcerations and/or perforations. Carprofen is not recommended for use in dogs with bleeding disorders, as safety has not been established in dogs with these disorders. The safe use of carprofen in animals less than 6 weeks of age, pregnant dogs, dogs used for breeding purposes, or in lactating bitches has not been established.

ADVERSE REACTIONS:

During investigational studies for the caplet formulation with twice-daily administration of 1 mg/lb., no clinically significant adverse reactions were reported. Some clinical signs were observed during field studies which were similar for carprofen caplet and placebo treated dogs. Incidences were observed in both groups: vomiting (4%), diarrhea (4%), changes in appetite (3%), lethargy (1.4%), behavioral changes (1%), and constipation (0.3%).

For a copy of the Material Safety Data Sheet (MSDS) or to report adverse reactions call Bayer Veterinary Services at 1-800-422-9874. For consumer questions call 1-800-255-6826.

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