FELINE CYSTINE

Cystine uroliths form because of inherited defects in renal tubular transporters of cystine and other dibasic amino acids resulting in increased urine cystine excretion. The transportation defect is genetically heterogeneous (autosomal recessive-SLC3A1 and autosomal dominant-SLC3A1 & SLC7A9) in other species and is likely similar in cats. Cystine stones are highly recurrent.

MINIMIZING RECURRENCE

** Diagnostic Considerations **

- Genetic tests for Cystinuria variants (Types 1, 2, others) if available

** Medical Considerations **

- Potassium citrate if urine pH is consistently <6.5 (starting dose 75mg/kg q 12 to 24 hr)
- Cautiously consider Thiola or similar thiol reducing medications in recurrent cases

** Nutritional Considerations **

- Lower protein/sodium foods that produce neutral to alkaline urine (e.g. k/d, others). If needed, feed canned therapeutic food or add water to food to lower urine specific gravity below 1.030.

** Monitoring Considerations **

- Medical imaging every 2 to 6 months to detect recurrent stones when small to potentially permit their removal without surgery.

** Review manufacturer’s therapeutic food literature to determine indications/contraindications. For pets with multiple health concerns, consult a veterinary nutritionist to select an optimal food. **

Support from Hills Pet Nutrition, veterinarians, and pet owners make our work possible.