



INTERNAL MEDICINE:

Feline Hepatic Lipidosis

What is hepatic lipidosis?

Hepatic lipidosis is a common cause of potentially reversible liver failure occurring predominately in obese cats. Anorexia, suboptimal energy or protein intake, or rapid weight reduction will cause mobilization of free fatty acids (FFA) from adipose tissue. The FFAs are taken up by the liver and converted to ketone bodies or triglycerides. Triglycerides are converted to lipoproteins. Ketone bodies and lipoproteins are used by the brain and muscle for 95% of energy requirements during absolute starvation. Healthy obese cats have excessive hepatic lipid accumulation because the normal liver extracts FFAs and converts them into triglycerides at a rate greater than their use in energy or lipoprotein dispersal. Since obese cats have the underlying tendency favoring hepatic lipid accumulation, starvation will exacerbate hepatic triglyceride accumulation. Reduced availability of lipotropic proteins, amino acids, and other nutrients during periods of suboptimal food intake will further limit lipoprotein synthesis and promote excessive hepatic lipid accumulation. Excessive accumulation of triglycerides within liver cells eventually interferes with hepatic function and liver failure results.

Diagnosis

Most cats with hepatic lipidosis will have elevated serum bilirubin and liver enzyme activities, with the one exception that GGT is often normal. Abdominal ultrasound will often (but not invariably) reveal an enlarged liver with hyperechoic parenchyma. Definitive diagnosis of hepatic lipidosis requires cytologic or histologic confirmation of lipid vacuolation in more than 50% of hepatocytes.

Treatment

Intravenous fluids are used to correct dehydration and electrolyte abnormalities. Aggressive feeding is required in severely affected patients. Placement of a feeding tube (percutaneous gastrostomy tube) into the stomach is the most satisfactory method to manage feedings. The expected hospitalization for cats with severe hepatic lipidosis is often 7-10 days. During this period of time, aggressive monitoring (and correction) for electrolyte abnormalities associated with refeeding syndrome are essential. As liver function recovers, appetite will gradually improve. Average recovery time is 8 weeks. When the cat is totally self-feeding for 2 weeks without any weight loss, the feeding tube can be removed.

MVS Board-Certified Internal Medicine Experts:

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All Internal Medicine doctors at the MVS locations in Southfield and Auburn Hills serve as an extension of your practice. Our diplomats have a minimum of four additional years of training beyond a DVM degree and have been board-certified by the American College of Veterinary Internal Medicine to assure competency in advanced veterinary internal medicine.

Questions?

Our internists are available for questions and consultations on medical conditions. They are also on-call for in-house consultation on medicine cases seen through the emergency service. Our internists review critical medical cases.

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