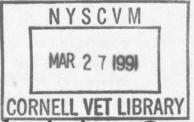
Perspectives On Cats A Newsletter for Cat Fanciers From The Cornell Feline Health Center

Spring 1991





Hepatic Lipidosis is a Common Liver Disorder

Hepatic lipidosis (fatty liver) is one of the more common and serious liver disorders that develops in the cat. It is a syndrome rather than a specific disease in which fat accumulates in the liver. Although excess fat is not considered to be directly toxic to the liver, it does signify an important underlying metabolic problem. When more than 50 percent of the liver cells are affected, a serious situation develops that can lead to death.

Signs

Primary hepatic lipidosis seems to develop in overweight cats that have been inappetant for one week or longer. There is no breed or sex predilection. Affected animals have recently lost weight and are usually jaundiced. Intermittent fever, vomiting and diarrhea are common. If your cat develops any of these signs, schedule an appointment with your veterinarian.

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Diagnosis

Diagnostic tests which your veterinarian may perform to determine hepatic lipidosis include blood tests (especially serum chemistries of liver enzymes), liver function tests, urinalysis, radiographs (or ultrasonographs) of the abdomen, and tests for feline immunodeficiency virus and feline infectious peritonitis. However, the most definitive diagnostic test is a liver biopsy. Usually a blood clotting profile is performed before a liver biopsy because clotting abnormalities frequently occur with liver diseases.

Treatment

The basis of treatment is to provide intensive nutritional support and eliminate any other disease processes. To ensure adequate nutrient and calorie ingestion, liquefied food is given through a gastrostomy or nasogastric tube. This requires hospitalization.

In addition to nutritional support, antibiotics such as ampicillin or amoxicillin are commonly used to protect affected cats from possible infections due to their compromised liver function.

Most cats that respond to nutritional treatment show a remarkable improvement within three to six weeks. Success is dependent on the owner providing thorough nursing care. Approximately 65 percent of affected cats can be saved from this disorder if they receive prompt attention and meticulous supportive care. Recurrence of the disorder and residual liver injury have not been shown.

Causes

The underlying mechanisms of hepatic lipidosis need to be more thoroughly examined. We do not know whether cats are:

- mobilizing excess fatty acids from their ample adipose stores,
- producing too many fatty acids from carbohydrates and proteins in the liver,
- have impaired mechanisms for dispersal of fat as lipoprotein from the liver, or
- have an inability to adapt to fat oxidation for energy generation.

It is possible that affected cats have a unique problem in adapting to fat metabolism under the circumstances of starvation. During times of "fasting" a cat is always producing more glucose and using more protein. In other species, consumption of small amounts of carbohydrates insufficient to meet caloric needs, impairs the normal adaptation to fat oxidation. This results in fat accumulation in the liver. The cat may further the fat accumulation in the liver during starvation because of its tendency to continue glucose synthesis and protein catabolism. Another possibility is that cats may have abnormalities of fatty acid oxidation. Also the exposure of affected cats to a toxin (externally or internally produced in the gastrointestinal tract) may induce metabolic changes causing fat accumulation in the liver.

Current Research

Currently, work is being done to more fully characterize the syndrome of natural hepatic lipidosis in the cat. If the syndrome is better characterized, its medical management may be refined and a better survival rate will be attained.

This article was adapted from an article that Dr. Sharon Center wrote for Feline Health Topics (vol. 4, no. 3, 1989). Dr. Center is associate professor of medicine in the department of clinical sciences at Cornell's College of Veterinary Medicine. She received her D.V.M. degree at the University of California at Davis.

Perspectives On Cats From The Cornell Feline Health Center

The ultimate purpose of the Cornell Feline Health Center is to improve the health of cats everywhere, by developing methods to prevent or cure feline diseases, and by providing continuing education to veterinarians and cat owners. All contributions are tax-deductible.

Director: Frederic W. Scott, D.V.M., Ph.D Assistant Director: John E. Saidla, D.V.M. Editor: June E. Tuttle Secretaries: Sheryl A. Thomas, Gwen Frost, Iulie Elzer

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Mail Bag

Q. My cat is six months old and doesn't care for canned food. She eats dry food very readily. Is it okay for female cats to live mostly on dry food and water?—M.B., New York

A. Cats of both sexes can live very well on only dry food. The early notions associating dry food with cystitis were appropriate at the time for that stage of pet-food development. Current pet foods, both dry and canned forms, are about equal in content and produce acid urine and contain low struvite-crystalforming minerals. The exception to this relates to the individual cat's ability or willingness to drink water. the amount of water (moisture) in canned cat food is significantly higher than in dry food. If the cat is a poor consumer of water, the urine becomes more concentrated, potentially causing crystals to form in the urinary bladder. Many veterinarians still recommend no dry foods for male cats, however if the cat consumes enough water there should be no problem.

Q. My cat has an ulcerated lesion on the tongue that has been present for 1 1/2 years. Sometimes it gets larger and then regresses. What is the possibility that

this is cancer and what should be done to diagnose it?—J.S., New York

A. Almost all oral lesions, except those associated with the teeth, should be considered malignanacies until proven otherwise. Since the lesion has been present for 1 1/2 years, it is very slow growing or not growing at all. The occasional increase in size might be related to local bacterial infiltration of the lesion and the resulting irritation. Most tumors of the tongue are malignant and by the time they are diagnosed the tumor has already spread into other tissues. This particular lesion should be biopsied and examined to determine cell-type. Complete removal is highly possible if it is benign, which it probably is, since it is as slow growing as you report it to be.

If you would like to have a question on cat health answered in this column, please write to:

Cornell Feline Health Center POC/Mail Bag College of Veterinary Medicine Ithaca, NY 14853-6401

Clip and Save —Vaccination Schedule

An appropriate vaccination program is important to protect your cat's health. All cats must be vaccinated against panleukopenia, herpesvirus and calicivirus. Additionally, cats can be vaccinated for chlamydia, leukemia, rabies and feline infectious peritonitis. All cats exposed to wildlife should be vaccinated against

ravies.		Age at First Vaccination	Age at Second Vaccination	intervals
Disease	Type of Vaccine	(weeks)	(weeks)	(months)
Panleukopenia	Modified, Inactivated	8-10	12-16	12
Rhinotracheitis Caliciviral	Modified, Inactivated, Intranasal	8-10*	12-16	12
Disease Pneumonitis	Modified, Inactivated, Intranasal	8-10*	12-16	12
(Chlamydiosis)	Modified	8-10	12-16	12
Rabies	Inactivated	12	64	12 or 36
Feline Leukemia Feline Infectious		9-10	12-13	12
Peritonitis	Intranasal	16	20	12

^{*}May be performed earlier but at the risk of increased maternal antibody interference.

Honor Roll

We thank the following people for their end-of-the-year generosity by making a contribution of \$100 or more to the Center. Individual support is vital to the Center. We also wish to thank those individuals who also contributed, but who are not listed on the Honor Roll.

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General Contribution

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In memory: Mimi. In honor: Dr. Hikes

(continued on page 8)

Mascot Is Chosen for Center

Let me introduce myself. I am the newest staff member of the Cornell Feline Health Center. I am their first mascot (or as I like to say, mascat). My new role as spokescat for the Center is very exciting. I will have the opportunity to travel to various events, such as cat shows and veterinary meetings, and appear on television to represent the Center. I'm still shy, although the staff is getting me to come out of my shell. They encourage aerobic exercise to help me develop an outgoing personality.

I imagine you're wondering how I was chosen for the mascot position. Well, I guess you could say it was by default more than anything. I was one of Dr. Peggy Barr's cats. My litter mates and I were monitored to see if we would develop feline immunodeficiency virus (FIV) since our mother was diagnosed with it at the time of her pregnancy. Blood testing was a regular routine for us. Fortunately we never became infected from our mother. The results provided Dr. Barr with important data for her FIV

studies. After we received a clean bill of health, Dr. Barr proceeded to find homes for us. It was at this time that Dr. Fred Scott, the Feline Health Center's director, created a new staff position that could only be filled by a cat. The staff "interviewed" us and checked our credentials for the mascot position. It was hard to compete against my sisters and brothers for the position, but my good looks and personality clinched the position for me.

Perhaps you are wondering why I haven't mentioned my name. It is because I don't have one yet. The Center wants to involve all its members in naming me so it's running a "Name the Mascot" contest. To enter just complete the form on the next page (copies are allowed, or send your suggestions in a letter). The center also requests that you send an entry fee of \$5 or more(to help defray the costs of my care such as food, litter and medical expenses). Mail your entry to: Name the Mascot, Cornell Feline Health Center, College of Veterinary Medicine,

Here I am with my new family. From left to right: June Tuttle (editor), Dr. John Saidla (feline extension veterinarian), Cordell Geissinger (technician), GwenFrost(secretary), Dr. Peggy Barr (graduate research assistant), ME (mascot). Dr. Fred Scott (director), Julie Elzer (secretary), Dr. Christopher Ngichabe (graduate research assistant), Sheryl Thomas (secretary), Dr. Wayne Corapi (research associate), and Dr. Chris Olsen (graduate research assistant).



Ithaca, NY 14853-6401. All entries must be received by May 15, 1991. The winning name will be selected by a panel of judges.

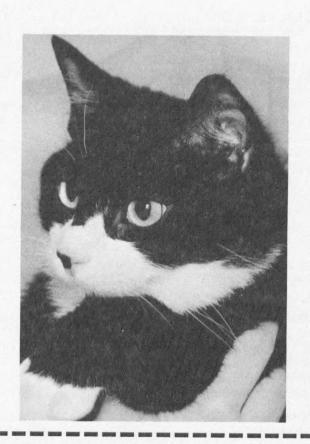
Prizes will be awarded as follows: First Place—a copy of <u>The Cornell Book of Cats</u>, Second and Third Places—1 year memberships. The next issue of *Perspectives on Cats* will announce the winners of the contest, *and* naturally my name!

The following basic information may help you in selecting an appropriate name for me:

Color: Black and white, with four white feet, a small black mark under my chin, and a white belly.

Sex: neutered male

Personality: Friendly but shy, curious, and energetic.



Name the Mascot Contest

I suggest t	he following name for the	Feline Health Center's mascot:
Entered by	(your name)	
	(street address)	
	(city,state,zip) Enclosed is \$	to help defray the costs of the mascot's care.

Send this form to: Name the Mascot, Cornell Feline Health Center, College of Veterinary Medicine, Ithaca, NY 14853-6401

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In memory: Mousy

In honor: Barnaby, Moses, and Lady Samantha

In memory: Rocky

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