

AS SEEN
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THE INFORMATION LEADER
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AND BUSINESS

Education Key in Diabetes Maintenance

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Contributing Editor

More than 1.4 million U.S. companion animals have been diagnosed with diabetes. That's one in every 500 dogs and one in every 200 cats.

"Obesity is a leading factor in the increase of diabetes in dogs and cats," says Tanya Civco, DVM, Dipl. ACVIM, an assistant professor at Auburn University. "We are seeing more diabetic animals because we are seeing more obese pets.

"There are far more diabetic animals today than even five or 10 years ago."

These significant numbers attract the research interests of veterinarians and manufacturers alike. Specialists point the finger at conflicting causes. While some veterinarians believe diet plays a role in the increase, others say cats in particular suffer due to the loss of the lifestyle they evolved with.

There is no dispute about the best route to achieve balance for patients: research and education.

"There is a great deal of ongoing research in diabetes in dogs and cats," says David Bruyette, DVM, medical director at VCA West Los Angeles Medical Hospital. "The disease is so common in both species that the newest research is focusing on newer insulin preparations such as lente insulins in dogs and cats—Vetsulin, pork insulin, as well as PZI and basal insulins in cats; Glargine; Lantus."

Though PZI insulin is no longer commercially available, at least one compounding pharmacy formulates it. And a recombinant formulation is expected to be introduced soon, according to Dr. Civco.

"Idexx is supposed to release its recombinant insulin, PZI, soon," Civco says. "PZI used to be the go-to insulin for cats. There has been a huge overhaul of what insulin is available as insulin used in people shifts more toward synthetic sources. It's been a real changing of cast and characters."



Effective Maintenance

"A newly diagnosed patient will need to have blood work run more frequently, with a decreased need for veterinary intervention as maintenance is achieved," Civco says. "Diet plays a huge role. Although vets are on different sides of the camp with the dietary relationship to the cause of diabetes in cats, there is no denying that a high protein, low carbohydrate diet is best, unless the cat also has liver or kidney disease. An obese cat is four times as likely to become diabetic than a lean cat. Obesity causes insulin resistance in both dogs and cats."

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“Dietary recommendations are different for dogs than cats,” Dr. Bruyette says. “Diabetic dogs need to be fed a high fiber diet [since dogs typically have type 1 diabetes]. Dietary fiber has been shown to improve glycemic control. The benefit is probably multifactorial but is likely related to fiber-induced decreases in gastric emptying. Reduced gastric emptying after a meal helps coordinate the absorption of carbohydrates across the small intestine with the onset of action of the administering of insulin.”

No new ingredient has proved to be the newest best thing to serve diabetic animals, but veterinarians stick with diets that have proven to be successful in their practice.

Therapeutic diets are still a mainstay in treating diabetic animals.

“For cats, a high protein/low carb ratio can actually assist a majority of cats achieve diabetic remission,” says Robin Downing, DVM, Dipl. ACPM, of Windsor Veterinary Clinic in Wind-

sor, Colo.

Diabetic dogs can have extreme day-to-day fluctuations in blood glucose levels, even if food and insulin are kept consistent. Because of this, it may take several months to regulate the appropriate dose. Twice-a-day injections are preferable although Vetsulin, by Intervet/Schering-Plough Animal Health, is approved for once-a-day dosing.

Watch Out

Maintenance and vigilant owners are essential to the animals’ diabetic success, so it is critical that the veterinarian become the educator, experts say. Seventy percent of diabetic dogs will eventually form cataracts, among other maladies that owners should be aware of, and clients should know to look for cues to a problem.

“[Owners should look for] bacterial infections, especially in the urinary tract and skin,” Bruyette says. “Diabetic neu-

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ropathies are common in poorly regulated cats and seem to primarily affect their rear limbs. These are reversible with glycemic control.

"There are no good studies documenting the occurrence of pancreatitis in diabetic dogs and cats; however, it is a common underlying factor in dogs and cats presenting with ketoacidosis."

A Holistic Approach

Some owners might prefer a homeopathic approach with their diabetic pet, which is where holistic veterinarians weigh-in.

"There are many herbs and holistic paths that can be useful in treating diabetic pets, but there is no substitute for insulin," says Carvel G. Tiekert, DVM, executive director of the American Holistic Veterinary Medical Assn.

"Cats are often diagnosed with diabetes after they present, having already crashed and burned. There is no substitute for insulin in the beginning stages of diabetes maintenance.

"However, after maintenance is achieved and in treating future challenges diabetic animals face, the holistic route will eliminate drug side effects. Chromium and zinc have good maintenance purposes in diabetic pets. Even acupuncture has been successful."

Good Communication

Many practices have been successful with client compliance, but that success is achieved through a close partnership starting at diagnosis.

"We let clients know in no uncertain terms that we are there for them and their pet 100 percent," Dr. Downing says. "We are extremely specific, explicit and consistent in our message about the disease and precisely how it should be handled. We make a plan, then we work the plan.

"Clients receive detailed written information about diabetes, instructions on how to measure blood sugars at home, coaching on their technique at the beginning and at any time they need a tune-up. We let our computer help us keep them current in their glucose curves."

The recent introduction of the Abbott Animal Health Alpha Trak blood glucose monitoring system helps Downing's clients keep track of a pet's blood glucose level at home and has helped maintain healthy diabetic animals. The handheld monitor is calibrated and validated for diabetic dogs and cats.

"It has literally transformed how we manage diabetic animals," Downing says. "Patients all receive regular glucose curves at home in their normal, natural environments, which greatly improves the veracity of our data."

While innovations in diets, insulin and education have greatly improved diabetic animals' outlooks, the most frequent

Pet Diabetes Month

November is Pet Diabetes Month, sponsored by Intervet/Schering-Plough Animal Health of Roseland, N.J., and supported by the American Animal Hospital Assn. The aim is to educate pet owners on the signs of and treatment of the disease.

Specifically, the campaign is designed to help pet owners understand the condition, its risk factors and what to do if they notice a change in their pet's behavior or appearance that might indicate diabetes.

To help with outreach efforts, veterinarians can receive in-clinic educational tools. A website, PetDiabetesMonth.com, includes a description of the treatment options available through veterinarians, a quiz for pet owners, a glossary and stories from pet owners describing their experiences with diabetic pets.

cause of death isn't implicitly caused by the disease.

"Several studies have shown that euthanasia is a common cause of death in diabetic dogs and cats mainly as a result of owners' concerns, real or perceived, regarding the care of pets with diabetes," Bruyette says.

"It is very important that we emphasize to pet owners that while diabetes is a chronic disease, it can be well controlled with minimal disruption of their lives while maintaining their pet's quality of life." ●