



MEDICAL NEWS

Surgical Decisions in Older Ferrets: How Old is Too Old?

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Older ferrets are prone to two common diseases: insulinomas and adrenal gland tumors. Both of these conditions can be treated medically (i.e., with medications) or surgically (i.e., can be operated upon). Which treatment is better? Is a ferret ever too old for surgery? These are valid questions that many ferret owners ask.

The following discussion will be directed from a medical perspective rather than from a financial one. Whether the pet is "worth" the financial expense is the owner's decision rather than the veterinarian's.

How risky is the surgery? In the hands of a competent surgeon, neither surgery is a highly risky procedure. That is not to say that surgery should be taken lightly. These are delicate surgeries that require a certain level of skill, particularly when operating on the right adrenal gland, which is attached to the largest vein in the body.

Appropriate monitoring of anesthesia is also critical. Anesthesia is much safer today with the use of the anesthetic gas known as Isoflurane. In the hands of an experienced veterinarian, expected surgical survival rates are at least 95%. Remember, however, the flip side of this survival rate means that approximately 5% (one ferret in 20) may die or have serious complications associated with the surgery. This is particularly true in the case of a ferret that is undergoing multiple surgeries (e.g., has concurrent insulinomas and adrenal gland tumors in both glands).

If the ferret has other major, concurrent illnesses, surgery is generally not recommended. Examples of these concurrent illnesses include chronic kidney failure, cardiomyopathy, and malignant lymphoma. These illnesses can be detected through pre-operative tests, such as blood work and radiographs, among others. The risk of surgery compared with its benefits must be weighed carefully.

Old age is not a disease. As long as there are no other major illnesses and surgery will improve the quality of life for the pet, I will consider surgery an option. For this reason, I do not have a "cut-off" age above which I will not operate.

Will surgery allow the pet ferret to live longer? The answer is clear in the case of insulinomas: surgery will double the ferret's life span. In a lecture at the 1995 North American Veterinary Conference, Dr. Karen Rosenthal reported a median survival period of 219 days when medical therapy alone was utilized. With surgery, the median survival time extended to

462 days [see new survival times reported by Weiss et al, *AFR* 1999;10(1):13]. It is important to remember, however, that insulinoma surgery is rarely curative; new insulinomas will eventually develop.

With adrenal tumors, the answer regarding longevity is less clear. I am unaware of any long-term studies comparing medical versus surgical treatment. Even if surgery does not increase the pet's life span, it usually improves the overall quality of life. Surgery should be recommended for adrenal conditions since the current medical therapies are *not* curative and have variable "success" rates. If there is a tumor, it is best to remove it since removal *is* curative. Most adrenal tumors are not malignant, and even the malignant ones are unlikely to have spread to distant sites.

Before you make a decision with your ferret, have a frank discussion with your veterinarian. If your veterinarian has little experience with ferrets, ask him or her to refer you to one who has more experience. You need to make an informed decision. You and your pet deserve "top quality" medical and surgical care.

Veterinarians, Others to be Surveyed to Establish Needs for Services

According to an article published in the *Journal of the American Veterinary Medical Association* (August 15, 1998;213:463), the American Veterinary Medical Association (AVMA), the American Animal Hospital Association, and the Association of American Veterinary Medical Colleges will be conducting a "market megastudy" of veterinarians, the general public, pet owners, and livestock owners to gather data on the future needs for veterinary services in the United States.

Helen Tarbert, AFA Librarian, contacted the AVMA regarding the role of ferret owners in the study and was told that issues specific to ferrets will not be addressed. AFA has expressed concerns to the AVMA about prior studies that have greatly underestimated the number of ferrets in the United States. "Prior surveys asked whether a household had ferrets," stated Dr. Freddie Ann Hoffman, AFA Health Affairs Committee Chair, "but failed to ask the number of ferrets per household." According to Hoffman, the AVMA's recent studies estimate that there are fewer ferrets living in the entire United States currently than how many ferrets the state of California estimated were living illegally in that state alone in 1989. AFA recently has submitted to the megastudy sponsors information that directly addresses the study's areas of interest with regard to the domestic ferret and ferret owners in the United States.



Partial Pancreatectomy Improves Survival of Ferrets with Insulinoma

In a retrospective review of 66 ferrets treated in a private-practice setting for pancreatic insulinomas, Drs. Charles Weiss, Bruce Williams, and Michael Scott reported the effects of three management approaches on the symptom-free survival time following initiation of treatment and overall survival time from initiation of treatment (Insulinoma in the ferret: Clinical findings and treatment comparison of 66 cases. *Journal of the American Animal Hospital Association* 1998;34:471–475).

Insulinomas are common tumors in ferrets, arising from the beta or islet cells of the pancreas. The tumors produce insulin, a hormone that controls blood sugar concentrations by pushing sugar molecules into cells where sugar is converted into energy. The overproduction of insulin can cause low blood sugar concentrations, which can have serious and life threatening consequences.

This retrospective study evaluated the records of ferrets that had been treated at the Potomac Animal Hospital in Potomac, Md. Insulinomas were diagnosed by observing clinical signs, finding low blood sugar concentrations (or hypoglycemia, generally described as blood sugar concentrations of less than 65 mg/dl following a 4–6 hour fast), and performing microscopic examination of tissues (histology) either at the time of surgery or postmortem.

Clinical signs of disease observed in the majority of ferrets were lethargy (extreme tiredness), weakness, difficulty arousing from sleep, excess salivation, and pawing at the mouth (a sign of nausea). Less common signs were weight loss, hind-limb weakness (ataxia) or difficulty walking, collapse, and hair loss. Seizures and vomiting were seen in less than 10% of the ferrets at presentation.

The first group of ferrets ($n = 10$) received only medical management, which included daily oral prednisone (0.5–1.0 mg/kg body weight) initially and later daily oral diazoxide (15 mg/kg body weight), when the prednisone alone no longer controlled the clinical signs of low blood sugar concentrations. A second group of ferrets ($n = 27$) received standard surgical removal of pancreatic nodules. Animals with many nodules and more severe disease formed a third group ($n = 29$) that received removal of most of the visible nodules and partial removal (25–50%) of the pancreas. The article provides more details regarding the surgical procedures used.

The mean age of the ferrets in this study was 5 years, with a slight preponderance of males (1.4 males to 1 female). Ferrets that received partial removal of the pancreas in addition to removal of nodules experienced a longer, symptom-free pe-

riod (365 days compared with 234 days for Group 2 and 22 days for Group 1) and a longer, overall survival time (668 days compared with 456 days for Group 2 and 186 days for Group 1). One ferret in Group 2 and two ferrets in Group 3 died of causes unrelated to insulinomas and were excluded from the survival-time analysis.

Data included in this study were from ferrets that underwent only one surgical procedure to remove insulinomas. Of the 56 ferrets that underwent surgery, metastases were found in the pancreatic lymph nodes and liver of only one animal. Thirty-six ferrets (64%) also exhibited splenomegaly. Concomitant adrenal tumors were found in 14 ferrets (25%). Of these with adrenal tumors, 11 (79%) had hyperplasia, 2 (15%) had carcinoma, and 1 (7%) had adenoma. In all cases of hair loss, the ferret also had adrenal disease. The complications of postoperative pancreatitis and diabetes mellitus (high blood sugar concentration due to low insulin concentration) were rare. The authors feel that an 18-hour postoperative fast may “contribute to the prevention of pancreatitis.” Only one ferret in the study experienced diabetes mellitus, which responded to injections of insulin.

While the study was not prospective or randomized, the authors concluded that partial removal of the pancreas and any visible nodules appeared to improve the survival of these ferrets with insulinomas. Although no ferret in this study received a second surgery, the authors’ experience leads to the conclusion that additional surgical removal of new nodules may further enhance the symptom-free interval and overall survival of ferrets with insulinomas, and the authors feel this option warrants further investigation.

AFA Position Statement on Declawing

As a result of recent inquiries about declawing ferrets, the AFA is republishing its Position Statement on Declawing. For a copy of this position statement and others on AFA letterhead, please contact the AFA office.

The American Ferret Association strongly opposes the practice of declawing. As part of the routine health maintenance of the ferret, the claws should be periodically trimmed. To do so avoids the problem of the ferret getting entangled in bedding or on other materials. Trimming also limits the growth of the “quick,” the pink part of the nail.

Declawing of a specific digit should only be undertaken by a licensed veterinarian for health reasons where the failure to do so will impact negatively on the ferret’s survival or on the functioning of the digit or paw.