

June 2007

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Ferret Friends Inc.

A 501(C)(3) Nonprofit,
No-Kill - Rescue, Shelter,
and Club in Tucson AZ

Please be generous with
your donations! Make
donations or membership
fee checks out to Ferret
Friends Inc. Send to:

Ferret Friends
C/O Dian Curran
PO BOX 594
Vail, AZ 85641

Islet Cell Tumor in the Ferret

Written by Dr. Bruce Williams, DVM

Islet cell tumors, also known as insulinomas, are the most common neoplasm in the ferret, based on the frequency of surgical and autopsy submissions at the Armed Forces Institute of Pathology. Over a period of two and a half years, this neoplasm alone has accounted for almost 15% of all ferret submissions.

Islet cell tumors derive their name from their cell of origin. These neoplasms arise in the "islets of Langerhans" - a group of special cells in the pancreas which produce insulin (also giving rise to the term insulinoma). Insulin is a hormone which allows most of the cells in the body to utilize the glucose in the blood. The excess levels of insulin produced by these tumors drive the glucose in the blood into the cells of the body, causing a dangerously low blood glucose level, known as hypoglycemia. (In diabetes, the opposite is true - low levels of insulin production render the animal's cells unable to use glucose, and dangerous hyperglycemia results).

Not all islet cell tumors appear to be functional, however. Islet cell tumors are often found as incidental findings at autopsy of animals dying of unrelated causes. Finally, a small percentage of animals fail to show characteristic signs of hypoglycemia, or show signs that are so subtle that they are not noticed by the owner and picked up on routine blood screening for other conditions.

Hypoglycemic ferrets may exhibit a wide range of clinical signs. Weight loss appears to be a common finding in affected animals, and is occasionally the only sign. This is an excellent reason why you should periodically weigh your pet as part of a good preventive health program. Signs that are more diagnostic of islet cell tumors are episodic depression and lethargy, which in some animals manifests as stupor (apparent loss of touch with its surroundings), salivation, difficulty in using the hind legs, vocalization, and in cases of severe hypoglycemia, seizures.

Diagnosis of islet cell tumors is fairly simple and consists primarily of measuring the blood glucose levels in the ferret, which your vet can do if you suspected this problem. (Some vets additionally measure insulin levels, but in most cases, this is unnecessary and wastes valuable time.) Animals with blood glucose levels less than 60 mg/dl should be strongly suspect of having one more of these tumors. Exploratory surgery in hypoglycemic but otherwise healthy ferrets should be scheduled at the earliest possible time.

In animals where surgery is not an option, or until such a time as surgery is possible, medical management may be attempted by using a combination of

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This article was found on the World Wide Web on April 7, 2007 at: <http://www.ferretcentral.org/faq/med/insulin.html>. The following article may be reprinted by anyone desiring to disseminate this information in a newsletter or non-commercial publication. This material may not be altered or changed in any way. Under Title 17 of the U.S. Code, Section 105, copyright protection is not available for any work of the United States Government.



Over the RAINBOW Bridge

Shelter Ferrets:
Starlet
Mia
Spice
Sox

Friends:
Spaz Schwerdtfeger
 (a cat that life will be hard to live without, he gave so much to us all)

Missing:
Boris Schwerdtfeger, red tabby with 5 toes on his front paws. Lost on May 21, 2007, in the Rita Ranch Area. If you know anything about him, please call Michelle at 664-1077. You can see a picture and more info at: <http://www.found-pets.org/lostcats.html>, #L07163

A Seasonal Reminder

A Seasonal Reminder

Posted by: "Sukie Crandall" sukiec@optonline.net

Sun May 27, 2007 12:20 pm (PST)

A seasonal reminder: fruit not only tastes great but is plum-full of nutrients that do humans good: plenty of antioxidants, vitamins, phytoestrogens in some like cherries, useful tannins for bladder health in things like blueberries, etc. so people should enjoy them and do so often.

BUT



their pits can create blockages in ferrets and some of their pits and seeds also contain a compound which turns into cyanide on digestion if the seed capsule breaks, with some examples of such seeds and pits being apple, cherry, peach, apricot, plum, jetberry, and toyon. (This is also how laetrile has killed people.) So, those seeds also carry a toxin risk.

SO

when you enjoy your fruits be sure to dispose of the seeds and pits in ways that the ferrets are unlikely to get them and swallow them.

Also, remember that grapes and raisins have caused acute kidney failure in ferrets, cats, and dogs so keep those away from your critters. They may be safe in small amounts but exceptions can happen and I'd hate to see anyone here kicking her or himself over something that is easily preventable.

Recommended ferret health links:

<http://pets.groups.yahoo.com/group/ferrethealth/>

<http://ferrethealth.org/archive/>

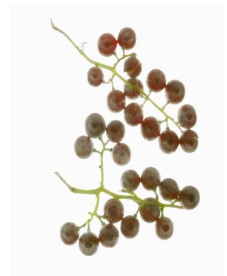
<http://www.afip.org/ferrets/index.html>

<http://www.miamiferret.org/fhc/>

<http://www.ferretcongress.org/>

<http://www.trifl.org/index.shtml>

<http://homepage.mac.com/sukie/sukiesferretlinks.html>



WHAT MAILING LISTS ARE THERE, AND HOW DO I JOIN?

The Ferret Mailing List (FML) is strongly recommended. To subscribe to the FML, send email to:

ferret-l-request@listserv.ferretmailinglist.org.

THE CURRENCY CORNER: WORDS FROM THE TREASURER

Treasurer Report 5/5/2007: We have \$4000 in the bank, most of our bills are paid, but we do have some surgeries coming up.

Every year we do an inventory for our taxes, if you have any Ferret Friends property please make sure Dian gets the info. This includes ferrets, water bottles, cages, bedding, etc.



Did you know...Ferrets can be good pets IF you are prepared to give them the extra care they need

Did you know...Ferrets make a noise that sounds like they are saying "Dook Dook"

Did you know...A group of ferrets is called a business

Did you know...When Ferrets play they do a kind of "war dance" and hop sideways

Did you know.....Ferrets are spayed or neutered and descented before ever reaching a pet store

Did you know...Ferrets need a lot of attention and playtime

Did you know...Ferrets are "obligate carnivores" and need a very high quality high protein diet

Did you know...Ferrets are very social and usually like to live with a ferret companion.

Did you know...Ferrets are not rodents.

Did you know...Ferrets are playful as kittens and puppies, often for their entire lives.

Did you know...Ferrets need annual vaccinations.

Did you know...Ferrets are illegal to own as pets in California

Did you know...There are an estimated 10 million pet ferrets in the United States

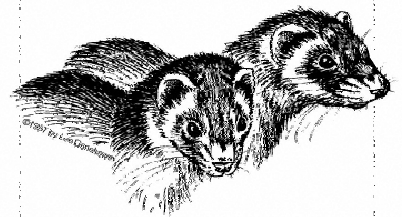
Did you know...There are thousands of ferrets being cared for in shelters and sanctuaries in North America

Did you know...the most recommended book about ferrets is Ferrets for Dummies – find it at Amazon.com

Did you know...Ferrets are often called carpet sharks, fuzzies, and furbabies

Did you know...Ferrets require a very large cage and a lot of time outside of their cage to play supervised in a ferret-proofed area.

If you would like to make a donation or help with volunteering please contact Carol at 520-762-5568 or Robin at 520-740-1707.



Pastiche Modern Eatery
3025 North Campbell
Avenue
Tucson, AZ 85719-2877
+1 520 325 3333
Open Hours 11:30a-
midnight M-F, 4:30p-
midnight Sa & Su
[http://
www.pasticheme.com/](http://www.pasticheme.com/)

JUNE 2007:

"Philanthropy With Phlavor"

For the entire month of June, Pastiche will donate 5% of your check to the charity of your choice. It's that simple. *"Treat yourself while treating others!"*

EASY "GRAVY" FOR FERRET DIET SUPPLEMENTATION

Ferret Friends has offered a couple times to show owners how to make Bob Church's Chicken Gravy. It can be a daunting task the first time it is made but it gets easier and faster with experience. The offer is still good; just let one of us know.

But, there is an easier way to make a similar tasty treat with much less mess and need for machinery. I make *turkey gravy* from inexpensive ground turkey rolls. Here's how to go about it:

Start with three – 1 pound rolls of frozen ground turkey. The cheaper the better as it will have more dark meat in it. Fry's sells a pack of five.

Keep the rest for later or make a recipe of turkey BBQ.

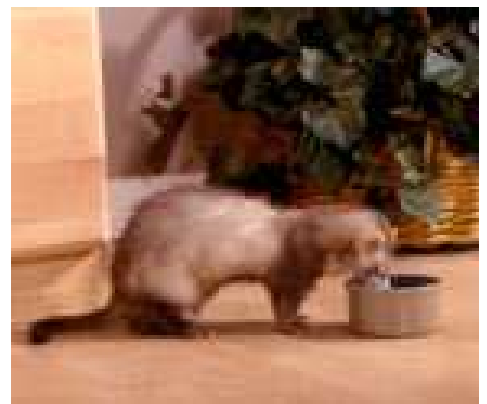
If you might have some home-made chicken broth you could use it up in the recipe. Do not add salt!

Thaw the meat and break it up into a crock pot. Cover with good water and cook on low overnight. Turn off heat, stir up and add the other ingredients. When mixed ladle it into a blender, so it is not more than half to 2/3 full, and run on high speed until the mix is very smooth. Dump into a large deep bowl and continue until done. Stir it all together and pour into freezer storage containers such as Zip-Lock. Make some small ice cubes and keep in a plastic bag and freeze the rest. Blocks can be thawed and re-frozen if needed.

Do not leave it out for an extended time or it will ferment.

Additional ingredients: (this is half of what goes in original Chicken Gravy)

- 1/2 tube of Nutrical or Nutri-Stat
- 1 1/2 tsp olive oil
- 1 1/2 tsp Ferretone
- 1/2 cup usual dry kibble
- 1 tbsp plain Metamucil or rolled oats
- 2 powdered eggshells
- 2 tbsp honey
- 1/2 cup fat trimmings, lard, or chicken fat



NOTE: The main difference between Bob Church's Chicken Gravy and this turkey gravy is that there are no bones and no marrow, thus less calcium and other nutrients. With the original the whole chicken is used and bones pressure cooked to be soft enough to pulverize. The turkey gravy is good as a supplement and as a carrier for medications like prednisone and melatonin but if used as a main food should have more calcium added to it.

Islet Cell Tumor in the Ferret

Continued from Pg 1

prednisone (which raises blood glucose levels by mobilizing carbohydrate stores) and diazoxide (Proglycem) an antihypertensive drug which appears to decrease islet cell secretion of insulin. It is important to realize that this is only a temporary measure and rarely is effective in controlling the animal's hypoglycemia for a long period.

It is also important to note that in a large number of cases (5/6 in one study), ferrets that had islet cell tumors surgically removed developed a second or more tumors at a later date. (Additionally, make sure that your veterinarian, if surgery is performed, takes a moment to check the adrenal glands for those extremely common proliferative lesions we so often see in ferrets.)

If you have a several ferrets, it is extremely likely that one of them, sometime during its life, will develop an islet cell tumor; it's the "nature of the beast". Just watch them closely for the clinical signs that I have described, and have your vet check them if you have even the slightest indication of a problem.

Happy ferreting!!!

Bruce Williams, DVM

1. Marini, RP et al. Functional islet cell tumor in six ferrets. JAVMA 202(3) 430-432, 1993.

2. Kawasaki, TA Personal communication.

In a different article, Dr. Williams cautions:

The largest number of insulinomas that I have ever seen is four. Ferrets get an age-related finding which is also seen in older cats known as pancreatic acinar hyperplasia. This is a non-neoplastic proliferation of small nodules in the pancreas, which are very normal. The problem is that while this nodular change is perfectly normal and doesn't hurt anything, many vets interpret it as a proliferation of islet cell tumors, and start taking them out. Now the ferret pancreas is fairly forgiving for surgery, but when you take out this many nodules, you stand a good chance of causing a rip-roaring pancreatitis.

The Ferret Health List

Click here to review my postings on many different medical topics to the Ferret Health List. Older posts may be superseded by more current information, and histopathology consultation is no longer available without prior email or telephonic contact.

The link is: <http://ferrethealth.org/archive/>

Bruce Williams, DVM, DACVP

Chairman, Department of Telemedicine
 Armed Forces Institute of Pathology
 Washington, DC 20306-6000
<http://www.afip.org/ferrets>

Adoptables

Happy

Cinnamon M 3

Pumpkin

Albino F 3

Rascal

Light Sable M 3

Buster Brown

Silver/Gray M 5

Nibbles

Sable F 3

Scrabble

Silver M 3

Boopsie

Sable F 1

L

Silver/gray M 4

Merlin

Sable M 2

Mim

Sable F 1

Murray

Dark Sable M 3

Oliver

Sable M 4

Snowball

Silver F 3

Romy

Light Sable F 2

MR Diggs

sable M 4 mo



We're on the Web
www.ferretfriends.org

Board of Directors:

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Carol Owens
762-5568

Vice-President:

Robin Kladke
740-1707

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Michelle Schwerdtfeger
664-1077

Treasurer:

Dian Curran
762-9710

Board Members:

Larisa Lauber
270-1328

Jo Ann McBride
820-2374

ITEMS OF INTEREST

Board Member

Meetings – Board member meetings happen every other month on the third Saturday at 1:30 PM at China Star Restaurant. The next meeting is on July 14, 2007.

Chicken Gravy –We are having a Chicken Gravy class. If you would like to attend or have questions please call Michelle at 664-1077 or Carol at 762-5568. You can also email ferretfriendsoftucson@yahoo.com for information or answers.

Donations— Please visit Pastiche in the months of June and Oct. and let them know you would like to donate part of your check to Ferret Friends Inc. To see more info on Pastiche see page 3.

Vaccination Clinic—

We will be having a vaccination clinic in July 2007; more details will be announced on the website.

Ferret Friends Store—

We are now selling cages and other items at the online store. Please look at the webpage for more info.

Yahoo Group—We have started a yahoo group: ferretfriendsoftucson. Go to our website and click on the Ferret Friends tab or follow this link:

<http://www.ferretfriends.org/aboutme.htm>.

PETCO Adoption

Partners- Ferret Friend Representatives have been taking ferrets and our newly made adoption books to local PETCOs. To find out when and where please contact Larisa at 520-270-1328

Ferret Friends of Tucson
917 N Solar Dr
Vail, AZ 85641-9744

or Jo Ann at 520-820-2374. To learn more about PETCO Adoption Partners go to:
http://www.petco.com/petco_Page_PC_petadoptions_home_Nav_313.aspx

Ferret Symposium—

Carol and Robin will be attending the Ferret Symposium in Portland, Oregon on June 21–24. If you would like info on this, please contact Robin or Carol.

Questions?

Contact Michelle S. at
Phone: 520-664-1077

Or email:
ferretfriendsoftucson@yahoo.com

