

Ferrets continue to increase in popularity as companion animals in California, despite their status as illegal pets. They can be purchased in all the states that surround California and then “smuggled” across state lines to reside in the homes of people, who are then fugitives from the law. The logic as to their illegal status has escaped me, having worked to change this status over the past many years to no avail.

Despite their status as illegal, I have been treating ferrets as a veterinarian for multiple decades and find them to be wonderful companions. Incidentally, we, as veterinarians, are legally allowed to work with ferrets in need of medical care. So I am not, unlike my ferret clients, a fugitive from the law. (Please picture my tongue in my cheek at this point).

If you have not already surmised, today we are going to discuss ferrets and specifically Petal. Petal is a four year old ferret cared for by Tom and Maggie. She is kept in a large cage at night, but is allowed lots of out of cage time with her caretakers. Tom has tried to “ferret proof” his house, which I believe to be an impossible task, as ferrets are extremely good at finding ways into and out of almost any situation. Recognize the term “to ferret out”? No term could be more accurate when describing these mischievous creatures.

Recently, Petal has begun to slow down. She is sleeping much more than she used to and her play time is greatly subdued. Tom describes episodes where she will begin to explore almost normally, then suddenly stop and almost fall asleep. These episodes have become more frequent over the last few weeks. She seems to be eating normally, but Tom and Maggie, logically, have concern.

First off, realize there are many possible causes for the symptoms Petal is showing. There is one, however, that is overwhelmingly most common among them. It is this diagnosis that I will focus on. Petal likely is afflicted with hypoglycemia (low blood sugar) caused by a tumor or multiple tumors in her pancreas called insulinoma(s). Sugar in the blood stream is the energy source that is used to power Petal's body. When that energy source gets too low (hypoglycemia), her body becomes weak.

Hypoglycemia in ferrets is most commonly cause by single or multiple insulin secreting tumors as I mentioned above. The production of excess insulin from the tumor(s) drives the sugar out of Petal's bloodstream into her cells, thus lowering the available sugar within the bloodstream. This condition, left unchecked, is fatal, as eventually the blood sugar drops below the point of compatibility with life.

Definitive diagnosis of insulinoma is accomplished with blood samples tested for blood sugar and insulin levels. In an affected ferret, the blood sugar level will be low while the insulin level will be elevated, which is exactly opposite of how this portion of the normal blood sugar regulatory mechanism is supposed to work. Normally, as the blood sugar level drops, so too does the insulin level. Correspondingly, as the blood sugar rises, usually after a meal, the insulin level will rise. This dynamic system is designed to keep blood sugar in a “normal” range.

Treatment for insulinoma can be surgical which is especially effective if there is a single insulinoma within the pancreas. Removal of this mass will cure the disease. If Petal has a case of multiple insulinomas within the pancreas, surgical intervention is less likely to cure the problem. However, I have had cases with some ferrets with many tiny insulin secreting masses in their pancreas and we were able to remove enough of the pancreas to lower the insulin production to more normal levels and alleviate the hypoglycemia.

If surgery is not a good option, medical management of the hypoglycemia can often times be achieved using corticosteroids, which counteract insulin thus reducing hypoglycemia. There is also a drug called diazoxide, which directly inhibits insulin, and it, too, can be used in ferrets with insulinoma.

For Petal, the first step will be a veterinary encounter, hopefully then leading to a definitive diagnosis, followed by appropriate therapy to bring her back to her old “ferreting” self.