Wasting Diseases: Proliferative Colitis & Helicobacter in Ferrets

Drs. Foster & Smith Educational Staff

Two bacterial diseases, proliferative colitis and *Helicobacter mustelae* gastritis, may cause diarrhea and severe weight loss in ferrets of any age, but most commonly affect 12- to 20-week-old animals.

Proliferative colitis

Proliferative colitis, also called proliferative bowel disease, is caused by bacteria that do not appear to be contagious to other kinds of pets. This organism that causes this disese is is *Lawsonia intracellularis*, which causes severe diarrhea in growing pigs. In both pigs and ferrets with this infection, the lining of the large intestine or the last part of the small intestine becomes very thick, interfering with absorption of nutrients and water.

Ferrets with proliferative colitis have dark stool, often containing a large amount of clear or green mucous. If not treated properly, these ferrets may lose 50% of their body weight in a week. They strain and moan or cry in pain while defecating. Sometimes rectal tissue is prolapsed and may not return to its normal position for hours or days. These animals will continue to eat with a reduced appetite, but are inactive and lethargic. They will eventually die if not given the appropriate medication.

There is no laboratory test available to confirm the diagnosis in the live animal; however, the thickened area of affected intestine can sometimes be palpated from the outside of the ferret and can be seen on x-rays or by ultrasound. The treatment for proliferative colitis usually brings about a quick recovery.

Helicobacter mustelae gastritis

Helicobacter mustelae gastritis most commonly affects ferrets at the same age as proliferative colitis, and causes similar symptoms. This bacterial organism is related to the one associated with gastritis and ulcers in human beings, and the treatment for ferrets is the same one used in people. Ferrets with ulcers have very dark, tarry-looking stool. Gastritis causes abdominal pain and most of these animals don't eat well or at all. Some may have chronic vomiting and have nausea, as evidenced by drooling and pawing at the mouth. They lose weight very quickly and will die without appropriate treatment. Often animals that have ulcers develop colitis, and vice versa.

Diseases are associated with stress

Many healthy-looking ferrets carry the organisms that cause these two diseases. Stress reduces the animal's resistance and induces diarrhea and wasting. The common stresses associated with colitis and ulcers are environmental, most often poor diet or inadequate feeding. Ferrets that accidentally are fasted for a day or more are most susceptible. This might happen if someone forgets to fill the water bottle, or if the ferret is prevented somehow from eating or drinking for a day. Ferrets that can not get water will not eat dry food; therefore, water deprivation immediately leads to food deprivation. Ferrets that escape from their owners' home and are lost outside for several days are stressed and starved at the same time, and become more susceptible to these wasting diseases.

Overcrowding or keeping the ferret in an excessively warm environment is also very stressful. Ferrets are most comfortable at temperatures below 70°F. Although they like to sleep in a pile, they need a reasonable amount of space for eating, drinking, and playing. There is no strict rule about what this space might be. If a litter box or toilet area can be kept clean by once a day cleaning, the number of animals using it is not excessive. If the litter box is always dirty, there are probably too many animals in that area.

Treatment of wasting diseases

If your ferret begins to have chronic diarrhea and loses weight, take it to a veterinarian as soon as possible. Ulcers cause blood loss and weight loss. These animals will die in a few days when a large bleeding ulcer has developed, and the chances that the healing drugs will have time to save the animal's life grow slimmer as time passes.

It is impossible to be absolutely sure that any wasted ferret does not have both proliferative colitis and gastritis/ulcers at once, and the best treatment is therefore a combination of the drug regimes for the two diseases. Ferrets tolerate these drugs very well. An improvement in appetite and attitude can often be seen within 2 days of the first treatment. Your veterinarian might take a blood sample to eliminate the possibility that other health problems exist in a wasted ferret, and will check a stool sample for coccidia. Some ferrets are severely dehydrated when first examined and require hospitalization for their initial treatment. After this, the medication can be given at home. Although 10 days is the prescribed period of treatment, some ferrets will suffer a relapse after this and need to go back on antibiotics for a longer time. Do not hesitate to return to your veterinarian if your pet shows any signs of diarrhea or weight loss when the drugs are stopped. The longer you wait to correct the situation, the poorer the ferret's chances are of surviving.

Nutrition plays a large part in allowing the ferret to recover from either of the wasting diseases. Gastritis causes loss of appetite and you might need to administer a high calorie, digestible food supplement such as Nutri-Cal™ or Doctors Foster & Smith Vitacal® to get the ferret over the first few days of treatment, until he starts to feel like eating. He cannot heal unless he eats and must have both protein and calories during this time. Other supplements that ferrets like include the veterinary product Prescription Diet A/D™, Ensure Plus™, a human nutritional supplement, and several supplements made for human infants. Avoid synthetic milk-based and soy baby formulas which will cause worse diarrhea, not so much because of

*Unauthorized use of any images, thumbnails, illustrations, descriptions, article content, or registered trademarks of **Foster & Smith, Inc.** is strictly prohibited under copyright law. Site content, including photography, descriptions, pricing, promotions, and availability are subject to change without notice. These restrictions are necessary in order to protect not only our copyrighted intellectual property, but also the health of pets, since articles or images that are altered or edited after download could result in misinformation that may harm companion animals, aquatic life, or native species.*

the milk content as because of their high concentration of carbohydrates. Home-made supplements can be concocted ('Duck Soup'). Most ferrets like milk with extra cream and egg yolk added. It will contribute to diarrhea, but when given frequently in small amounts, enough is absorbed that the ferret will gain weight anyway.

Even healthy animals absorb frequent small meals better than one large meal. The first few days of the treatment period for wasted ferrets are critical and even a single mouthful of a nutritious food can make a big difference to the chances of recovery. No amount of time or effort is wasted in tempting sick ferrets to eat frequently.

Ferrets that fully recover from either proliferative colitis or *Helicobacter* gastritis rarely suffer a relapse. The disease is contagious but is most commonly spread from the mother to her babies, not between adult pets. Isolating a sick ferret from other pets is not necessary to protect the exposed ferrets, although it may be advantageous to give the sick one some privacy. If the ferrets have been living together, all of them already have the bacteria in their gastrointestinal tracts – it is likely that all ferrets in North America carry *Helicobacter mustelae* as adults, and only those made susceptible by stress will develop acute gastritis.

*Unauthorized use of any images, thumbnails, illustrations, descriptions, article content, or registered trademarks of **Foster & Smith, Inc.** is strictly prohibited under copyright law. Site content, including photography, descriptions, pricing, promotions, and availability are subject to change without notice. These restrictions are necessary in order to protect not only our copyrighted intellectual property, but also the health of pets, since articles or images that are altered or edited after download could result in misinformation that may harm companion animals, aquatic life, or native species.*