Inflammatory Bowel Disease (IBD) in Ferrets

Drs. Foster & Smith Educational Staff

Though inflammatory bowel disease (IBD) is common in ferrets, there are still many questions regarding the cause and treatment of this disease that remain unanswered. "IBD" is a broad term referring to a collection of signs and microscopic changes in the GI tract that may be due to a number of causes. "Bowel" refers to the gastrointestinal (GI) tract, so inflammatory bowel disease translates as inflammation of the GI tract. This inflammation occurs when the ferret's body mounts an immune response to a potential threat, but then the immune response continues indefinitely, damaging the GI tract. But what causes this inflammation? How do you diagnose IBD, and how can you treat it?

CAUSES

The inflammation seen in IBD may result from multiple causes including food allergies, hypersensitivities to certain bacteria, or chronic viral infections. Some veterinarians feel that IBD may actually be a chronic reaction to an infection with the coronavirus that causes epizootic catarrhal enteritis. Infection with *Helicobacter mustelae* may cause signs similar to IBD.

Food allergies

Food allergies could be associated with reactions to common dietary components such as chicken. This presents a problem, as virtually every ferret food contains some kind of chicken or chicken product. Corn and wheat may also cause problems for many ferrets and are present in a variety of ferret foods.

Hypersensitivities to certain bacteria

Both "good" bacteria and "bad" bacteria can live in the GI tract and may cause an inflammatory response. The ferret's body could overreact to harmful bacteria, or mistakenly identify normal bacteria as a threat.

Chronic viral infections

Long-standing infections may result in chronic inflammation in which certain cells accumulate in the walls of the intestine.

No matter what the cause is, the end result is serious damage to the bowel, which causes changes in the microscopic structure of the stomach and intestine. An accumulation of cells in the intestine decreases its ability to absorb nutrients and changes the speed at which food moves through the intestine. IBD is an ongoing condition that requires veterinary care.

SYMPTOMS

There are no "classic" signs of IBD that you will definitely see. Diagnosis cannot be made by symptoms alone, as the symptoms of IBD are very similar to those for ulcers, coccidia (an intestinal parasite), and proliferative colitis, to name a few. Infection with *Helicobacter mustelae* may also cause signs similar to IBD. So a diagnosis based on symptoms will often

*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.*

overlook the possibility of IBD or falsely diagnose another disease as IBD.

These are some of the symptoms you may see in a ferret afflicted with IBD:

- Sporadic soft stool in the beginning stages
- Lack of appetite
- Shift in food preference
- Formerly indiscriminate ferret now picky about food and treats
- Lethargy
- Dry coarse coat (from malnutrition)
- Weight loss
- Increase in stool frequency and amount
- Diarrhea
- Stool changes to a birdseed/grainy appearance

With IBD, a ferret can lose up to 90% of the absorptive area of his intestine. This results in only partially digested food passing through his digestive system and diarrhea. Birdseed/grainy stool is seen when a ferret cannot absorb the nutrients from his food, and seeing this stool regularly means that your ferret is well on the way to serious malnourishment.

If you see any of these symptoms, schedule a veterinary appointment.

DIAGNOSIS

The only way to definitively diagnose IBD is with a biopsy; this can be done surgically or with an endoscopy. The tissue samples are examined microscopically by a specially trained veterinarian or pathologist. In IBD, certain cells accumulate in the wall of the intestine. These cells may include lymphocytes, plasma cells, and eosinophils. These are the cells associated with the inflammation.

Although blood work is not helpful in actually diagnosing IBD, it can be useful in eliminating the possibility of other diseases. Blood work may suggest IBD, but a biopsy must be done to be sure. X-rays and ultrasounds will not show the inflammatory lesions and, are therefore, not as helpful for diagnosing IBD; though again, they may be helpful in eliminating other possible causes of the signs.

Definitively diagnosing IBD is very important before starting treatment. As mentioned before, the symptoms of IBD can be indicative of other diseases, and treating for IBD if the ferret actually has a different disease can make other conditions worse.

TREATMENT

Treatment can have three parts - immunosuppression, dietary changes, and antibiotics.

Immunosuppression

Since IBD is the result of an ongoing immune reaction, immunosuppression is the typical treatment that most veterinarians will choose. Immunosuppressive drugs will slow down or stop the reaction at many levels. A corticosteroid such as prednisone is generally used for this. The problem with using a drug that suppresses immune responses is that it will affect the entire body, not just the GI tract. If used at very high doses, these drugs can leave the ferret defenseless against other diseases that may invade other organs.

If your ferret cannot have prednisone or doesn't respond well to it, your veterinarian may prescribe azathioprine (Imuran). However, azathioprine can result in more serious side effects than prednisone, including bone marrow suppression. You will want to discuss the risks thoroughly with your veterinarian so you know what to watch for.

Dietary Changes

Simply switching from one type of ferret kibble to another generally does not help because most ferret kibbles have the same basic ingredients. Ferrets with IBD need a bland, highly digestible diet such as Science Diet a/d, duck soup or baby food. A highly digestible diet will allow your ferret to absorb as many nutrients as possible even with his decreased digestive function.

Some cases of IBD are due to a food allergy, so you may want to discuss a chicken free diet with your veterinarian. There are some cat diets made from turkey and barley, rabbit, duck, or venison that may help. Another option would be to feed your ferret Science Diet z/d. This contains chicken, but the chicken is hydrolyzed (broken down into very small pieces), so the ferret's body won't recognize it as chicken. If there is a sensitivity to wheat or corn, these should also be eliminated from the diet.

Before deciding on any dietary changes, discuss them with your veterinarian.

Antibiotics

In certain cases where a bacterial cause is suspected, your veterinarian may prescribe antibiotics and stomach protectants. Possible medications include amoxicillin, clarithromycin (Biaxin), bismuth subsalicylate (Pepto-Bismol), cimetidine (Tagamet), and sucrulfate (Carafate), among others.

SUMMARY

If you suspect that your ferret may have IBD, schedule a veterinary appointment as soon as possible. If you receive a

*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.*

definitive diagnosis, discuss the best way to treat your ferret with your veterinarian. It may take some time to work out the proper dosage for medications and the best diet for your particular ferret, but with some work and patience, your ferret's disease will usually be able to be effectively treated. While there is no cure for IBD, it can be successfully managed for long periods of time.

*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.*