

Diarrhea in Cavies- Part 2

Denise Talbott, DVM

In continuation of the topic of diarrhea in cavies, this article will discuss diarrhea due to viral, bacterial and parasitic causes. It will not be tremendously exhaustive because there isn't a huge amount of published literature regarding some of these causes.

Viral Causes of Diarrhea

There seems to be very few viral infections in guinea pigs that produce GI signs with the exception of coronavirus. Coronavirus has been seen in young or weanling cavies and produces typical signs of a sick animals- weight loss, loss of appetite with diarrhea and death.

Bacterial Causes of Diarrhea

There are several bacterial agents that can cause diarrhea in cavies, but without culturing it is impossible to know if one of these agents is the cause of diarrhea and/or acute death in an animal or in a herd. Often it isn't until the loss of several animals that a culture is performed. Some of the possible agents have a zoonotic potential, so good rule of thumb is to practicing good hygiene, to treat an ill animal LAST (so you don't spread infectious agent to all the healthy animals in the herd) and to clean its cage/bedding last also. If you are able to provide isolation of your sick animals, so much the better.

Tyzzler's disease is caused by *Clostridium piliforme* and is transferred in an oral-fecal route. Pigs may carry the organism and appear healthy without clinical signs until they become stressed or immunocompromised due to other factors. They will then start to exhibit GI signs. *C. piliforme* is a difficult organism to grow since it is intracellular and often diagnosis of this organism is hard to make.

Cavies are also able to get salmonella infections caused by several species of that organism. It can appear as either an acute disease which rapidly causes the demise of the animal and it can also appear as a more chronic subacute disease in which the animal becomes unthrifty and wastes away over a period of several weeks. Even if animals recover, they often will continue to shed the organism.

Other bacterial organisms that can cause GI disease are *E. coli*, *Yersinia pseudotuberculosis*, and *Listeria monocytogenes*.

Parasitic Causes of Diarrhea

Probably the most significant protozoal parasitic infection in cavies is caused by the organism *Cryptosporidium wrairi*. It is transmitted via ingestion of infectious fecal material and the animals most susceptible are those who are immunosuppressed due to stress and weanlings. Pigs that are not immunosuppressed will generally recover although recovery can be lengthy. Identification of this organism is done on fecal exam or on histologic exam

where the organism can be found on the brush borders of the microvilli in the gut. There is no known effective treatment (although one source does advocate the use of sulfonamides) but the oocysts can be destroyed in pens, etc. with a 5% ammonia solution. This organism has zoonotic potential. Other protozoan parasites that can affect caviaries are *Eimeria caviae* and *Balantidium caviae*. *Eimeria spp.* can be treated with sulfonamides although some authors do not feel these cause clinical disease in caviaries. *Giardia* may or may not be a cause of diarrheal disease in caviaries although if felt to be present and problematic the animal can be treated with metronidazole.

Treatment

If the cause of the diarrhea is known and a specific therapeutic regimen can be instituted, then that of course is the best way to manage diarrheal diseases in our animals. However, generally speaking, we don't know the exact cause of the problem and so there are a few guidelines I would like to offer in the way I manage diarrhea.

Firstly, I don't see diarrhea very often. Cleanliness and providing a stress free environment is paramount. I will isolate the animal to prevent spread, but also to more easily monitor how the animal is doing. While caviaries are much happier with companions, this is one time when they don't need to have competition over food (if they are still eating), water and the resting spot with the most ideal feng shui.

Therapy in my caviary depends upon the level of illness and pain that the animal is exhibiting. It can range from SQ fluids and sulfonamide therapy to simply putting animal on a hay it will eat with water that has Vit C added.

Kaopectate just used to be kaolin (some sort of clay then attapulgite) and pectin (a fruit or plant structural polysaccharide found in cell walls). Then it was reformulated for adults to contain bismuth subsalicylate. If you find Kaopectate that isn't bismuth subsalicylate I think it is just fine. The "clay" adsorbs toxins onto its surface and the pectin binds with water to give some form to the stool. I never use it. Other folks do. I cannot comment on its efficacy.

What I will use for crampy pigs is loperamide. The dosage is empiric and I use it for its anti-cramping properties NOT because I don't want to see diarrhea. It actually acts the same way in the GUT as narcotics do and pain relief due to reduced cramping is pretty significant. I dose it like this- 1/10 cc of the liquid loperamide per adult pig and I will repeat that once in about 30 minutes if I don't see any relief in the animal. Again, I only use it for those animals that are crying, sitting hunched up and straining (be sure you know pain is due to GI distress and not urinary obstruction).

If I am going to use an antibiotic, I will use Albon (sulfadimethoxine) and I will occasionally give ONE dose of children's ibuprofen (10 mg/kg) to reduce inflammation in the gut. More than that I think is contraindicated.

Let me stress again that some of the causative agents of diarrhea can be zoonotic. Children should not be allowed to handle animals with diarrhea.

Jepson, Lance. Exotic Animal Medicine. New York: Saunders/Elsevier, 2009.

Mitchell, Mark A. and Thomas N. Tully, Jr. Manual of Exotic Pet Practice. St.Louis, MO: Saunders/Elsevier. 2009.

Quesenberry, Katherine, and James W. Carpenter. Ferrets, Rabbits and Rodents. 2nd ed. St.Louis,MO: Saunders/Elsevier