

Histomoniasis - Black-head

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Species

Black-head can infect all gallinaceous birds but turkeys, pheasants and pea fowl are particularly susceptible. Occasionally it is seen in chickens.

Status in Canada

Histomoniasis (commonly called "black-head" in the poultry industry) is a common disease in backyard flocks and aviary birds but is uncommon in commercial flocks because of husbandry practices.

Etiology

Histomoniasis is caused by the protozoan parasite *Histomonas meleagridis*. This is a common parasite that has a complex life cycle. The disease generally follows a history of turkeys (or other susceptible species) being raised in areas where chickens were or are housed. The life cycle of the protozoa utilizes *Heterakis sp.*, the cecal worm of chickens as the intermediate host.

The parasite eggs are ingested by the final host (eg. turkey or pheasant) and they develop in the cecum (portion of the lower digestive tract ... see digestive system fact sheet). The developing parasite causes damage to the wall of the cecum. Some of the developing parasites penetrate into blood vessels and are carried to the liver via the blood stream. In the liver they cause severe damage.

The Disease

Clinical signs of the disease include white to orange diarrhea, a result of the damage to the intestinal tract. Once the liver is involved the feces often become yellow and the birds become depressed, appetite decreases and they lose body condition and eventually die.



Histomoniasis



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At necropsy there are lesions in the cecae with thickening of the cecal walls, inflammation and the development of cecal cores (see figure 1). There are typically multi-focal areas of necrosis and large distinctive “target-shaped” lesions in the liver. This combination of lesions is very suggestive of blackhead. The term “black-head” comes from the cyanotic discoloration of the birds head due to poor circulation in the sick bird.



Portion of lower digestive tract (cecum) and the liver of a bird dead of histomoniasis. Note the white, hard cores of dead material in the lumen of the cecum.



Liver of a pheasant with typical target shaped areas of damage caused by Histomonas

Treatment

Treatment of this disease is very difficult as virtually every effective drug has been removed from the Canadian market. There are still a couple of drugs available as feed additives for preventing histomoniasis that are used in the turkey industry.

Treating sick birds is usually unrewarding because lesions are extensive before birds show any clinical signs. Usually the diagnosis is made at necropsy and a decision made whether to treat the rest of the flock. There is no human health risk associated with this disease.

Prevention

Black-head is preventable by good management and good biosecurity (see the principles of biosecurity fact sheets). Do not raise pheasants, turkeys, peacocks or other game birds with chickens. Do not raise turkeys or other susceptible species on ground that once housed chickens. If this is not possible, confining birds in well cleaned pens and supplying feed medicated with a histomonistat will help prevent the disease.



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