Blackhead in Poultry

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Blackhead, also referred to as histomoniasis, is a disease caused by the protozoan Histomonas meleagridis. This disease initially affects the intestinal ceca and liver, causing tissue destruction. This disease primarily affects turkeys, but other poultry species can be infected as well. Pheasants, ducks, and geese appear to be immune to the effects of blackhead. Chickens are somewhat resistant to blackhead. Turkeys and peafowl are the most susceptible.

A healthy flock can be infected in several ways. Histomonas can be ingested by common earthworms and survive inside them for extended periods. When these worms are consumed by birds, the birds become infected. Blackhead can also infect a common internal parasite called the cecal worm. This worm is very small and rarely causes harm to the host. When mature cecal worms produce eggs, the eggs are shed in the host’s droppings. Histomonas can penetrate the eggs of the cecal worms and live inside them. Birds become infected with both cecal worms and blackhead when they consume cecal worm eggs.

Clinical signs

Clinical signs of blackhead include yellow droppings and reddening of the skin and muscles. The disease derives its name from the dark red skin of infected birds. The disease develops slowly, and an infected bird will lose much of its breast muscle because it is too sick to eat.

Treatment

There are no medications currently approved for use against blackhead. The one medication available was recently taken off the market because of possible health risks to people.

Prevention and Control

A good biosecurity program can help prevent infection of a flock. Nitarsone (sold under the brand name Histostat-50) is a drug that can be added to feed to prevent blackhead. It is only a preventative medication; it is not effective in treating flocks that are already showing clinical signs of infection. It is important to note, however, that Histotat-50 is toxic to waterfowl, so ducks, geese, and so on should not have access to medicated feed. Preventative measures also include regular removal of manure from turkey pens and deworming birds to eliminate the cecal worm load. It is recommended that turkeys not be ranged on pasture used by chickens within the past three years.

For More Information

Blackhead disease in turkeys. Eva Wallner-Pendleton and Sheila Scheideler, University of Nebraska.