



Tikrit University
College of Veterinary Medicine

Black head

Subject name: Poultry diseases

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Lecturers link

Black head

Definition:

Blackhead disease (histomoniasis) is an important poultry disease that affects turkeys, chickens, partridges, pheasants, and quail. The disease is caused by the protozoa *Histomonas meleagridis*, tiny, single-celled organisms that are spread to the bird by the roundworm *Heterakis gallinarum*.

Synonyms: Histomoniasis, Enterohepatitis,

Etiology:

The causative agent is Protozoan parasite called **Histomonas meleagridis**. This parasite has two forms, the intracellular form which is rounded or oval in shape with granular nucleus, and extracellular form which has irregular shape with pseudopods and flagella.

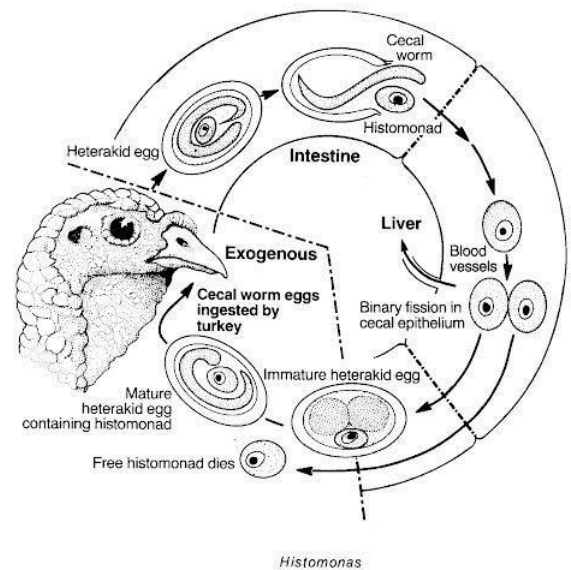
Susceptibility:

Chickens, Turkeys, and Pea fowl are natural hosts to black head infection.

Life cycle:

The lifecycle of the protozoa *H. meleagridis* is complex:

1. The protozoa multiply in an infected bird's cecum, a part of its digestive tract
2. They move to intestines where the roundworm *H. gallinarum* lives.
3. The roundworm eats the protozoa.
4. The roundworm's eggs become infected with the protozoa.
5. The bird sheds the protozoal-infected roundworm eggs in its droppings.



Transmission:

1. Direct transmission by infected water, feed, droppings of infected birds and soil.
2. Indirect transmission by infected eggs of the *Heterakis gallinarum*.
3. Parasite can be carried to chicken by eaten earth worms .

Clinical signs:

1. Affected birds are depressed and anorexia.
2. Wings dropping and ruffled feathers.
3. Sulphur-yellow diarrhea.
4. Cyanosis of the head.
5. High mortality, particularly in young turkey poults, but the disease can also affect older birds.

P.M. lesions:

1. The liver enlarged and discolored green or tan with present circular necrotic areas.
2. Present cheesy cores and ulceration on the cecal wall.
3. Present hemorrhagic exudate on the mucosa of ceca which fills the lumen and lead to distended the walls.

Diagnosis:

1. Clinical signs and lesions.
2. Identification of The organisms by taken the smears from cecal content to see the parasite. The Organisms are most easily observed with phase-contrast microscopy \ with fresh Specimens.

Treatment:

- Nitroimidazol add 85-100 gm./ ton feed.
- Nitarsol add 70 gm. / ton feed.

Control:

Good hygiene, avoid mixing Chickens with Turkeys and control Earth worm.