Histomoniasis (Enterohepatitis, Blackhead)

- Most important in turkeys, common in peafowl.
- Occurs in turkeys brooded in old chicken houses.
- Usually in debilitated chickens.
- This occurs in leghorn pullets raised on litter.
CAUSATIVE AGENT

- *Histomonas meleagridis* - a one-celled organism/parasite

- Requires cecal worms for natural infection. Turkeys will die of Blackhead before the cecal worms can reproduce. But if cecal worms are present, so is histomonas.

- Viable - 24 hrs - outside host
  - 151 wks - in cecal worm eggs
INCUBATION PERIOD

3 to 4 days

COURSE OF DISEASE

Subacute or chronic
Subacute: 10 days to 2 weeks
Chronic: Several weeks
No immunity
METHOD OF SPREAD

- Ingestion of cecal worm eggs.
- Infected chickens may be source of turkey infection.
- Earthworms - infected with cecal worms eggs.
- This is a route of infections for pen raised quail.
Heterakis gallinarum
Heterakis eggs
MORTALITY

- Poults - may reach 80 to 90% when affected before 4 weeks of age
- Older poults - 20-25% or less
- Chicks and chickens - mortality varies
CLINICAL SIGNS

- Typical sick birds
- **Sulfur colored droppings** - yellow, foamy
- Cyanotic head (turkeys)
- Old birds lose weight
POSTMORTEM LESIONS

TURKEYS AND CHICKENS

Enterohapatitis:
1. Ceca - cheesy core
2. Liver - round sunken lesions
3. Chickens, pheasants and bobwhite quail
   - May not show liver lesions
Typical liver lesions
Normal vs. affected
Typical liver lesions
Cecal lesions
Cecal lesions
DIAGNOSIS

SUGGESTIVE DIAGNOSIS

• Typical lesions in ceca and liver.

POSITIVE DIAGNOSIS

• Cannot isolate or propagate - will see causative agent on histo in liver tissue
Histomonads in liver
Histomonads in liver
TREATMENT

- Separate sick birds.
- No reliable treatments or preventatives are presently available due to 1987 FDA ruling banning approved drugs.

- Backyard flocks:
  - Metronidazole (flagyl)
    - 250 mg/gal-5 days. Palatability?
- A liquid form is used in pet birds.
PREVENTION

• Rotate range
• Separate turkeys and chickens
• Control cecal worms
• Continuous medication
  Hepzide