Inclusion Body Hepatitis

First described in 1963 concurrent with a severe respiratory outbreak in broilers.

1970
Canada
Delmarva
Indiana
Tennessee
Etiology

VIRUS

- An adenovirus will reproduce the disease in immunosuppressed birds.

- Gumboro virus plays a role in the field problem. Lack of maternal antibody will result in an early Gumboro infection which leads to immunosuppression.
Incubation Period
3-5 Days

Course of Disease
- Usually seen in birds 3-5 weeks of age and lasts up to 3 weeks.
- Excessive cull rate for 5-6 weeks.

Method of Spread
- Lateral
Clinical Signs

- Birds usually found dead
- Shanks and comb become very pale
- Reduced growth rate
Sudden Death
Postmortem Lesions

- Livers swollen, mottled with subcapsular stellate hemorrhage.
- Soft liver parenchyma.
- Kidneys swollen and pale with some hemorrhage.
- Bone marrow very pale.
- Small bursa of Fabricius.
Liver
Liver
Liver
Bone Marrow
Bone Marrow
Diagnosis

- Histopathology
  - Kidney
    - Congestion, hemorrhage and nephrosis
  - Liver
    - Vacuolation of hepatic cells due to fatty changes
    - Scattered areas of necrosis with focal areas of lymphocytes
Diagnosis

- Histopathology (continued)
  - Large Cowdry Type A intranuclear inclusion bodies – very numerous
  - Inclusions surrounded by a clear halo

- Viral Isolation
  - Need SPF eggs. Some embryos will have liver lesions grossly and microscopically
Histo Liver
Inclusion Bodies
Treatment

Broad spectrum antibiotics and vitamin fortification will diminish the cull rate
Control

- Vaccination
  - Attenuated vaccines for Gumboro
- Decontamination of premise