

Duck Hepatitis

(Disease of ducks younger than 21 days)

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NORTH AMERICA (POLITICAL)



First reported from North America

Map not to Scale

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- **First report in Ducks Reared in Long Islands in 1945**

- **Duck viral hepatitis is an acute, highly contagious, viral disease of**

young ducklings

characterized by

- short incubation period**
- sudden onset**
- high mortality**
- characteristic liver lesions**

- **Avoid contact with wild waterfowl**

- **Rats - reservoir host - pest control**



- **Three distinct types DHV**
 - **DHV1 (Genus Avihepatovirus) previously placed in Enterovirus**
 - **DHV2 and DHV 3 (Astroviridae)**
(MacLachlan and Dubovi, 2011)
- **Family-Picornaviridae and Genus-Avihepatovirus: Duck hepatitis A (Quinn et al., 2011)**

- **Readily propagated in chick and duck embryos**
- **It does not produce haemagglutinins**
- **No transmission through eggs**
- **Parenteral or oral administration of infected tissues**

- **Clinical Findings:**

- **IP-1-5 days**

- **Course of disease- 3-4 days**

- **Affected ducklings become**

- **Lethargic, stand still with partially closed eyes**

- **Lose balance and fall to one side**

- **Paddle spasmodically, and die within minutes**

- **Mortality up to 95-100% in ducklings**

- **Deaths within 1 wk after onset of signs**

- **Adults show no signs though infected**

- **Egg production unaffected**

Diagnosis

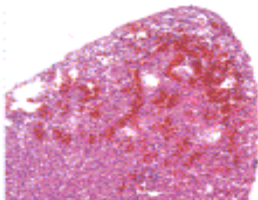
- **History and Lesions**
- Sudden onset, rapid spread, and short course
 - With characteristic liver lesions in necropsy
- Enlarged liver
 - Covered with hemorrhagic foci
 - Up to 1 cm in diameter
- Spleen enlarged
 - **MOTTLED** – Patches of different **colour**
- Kidneys swollen
 - Renal blood vessels congested

- **Immunofluorescence – Rapid, definitive**
- Isolation : **duck hepatocyte cell culture** / **allantoic sac**, 10 day old embryonated duck (preferred than chickens)

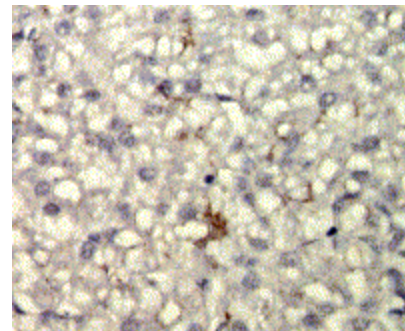
● **Greenish
discolouration of
embryonic fluids**



6-7 days old duck liver



In Goose



- References
- Textbooks of Veterinary Microbiology
 - Veterinary Virology etc
- Photographs were used from Internet and purely for educational purpose
- Further study-
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5447982/>