



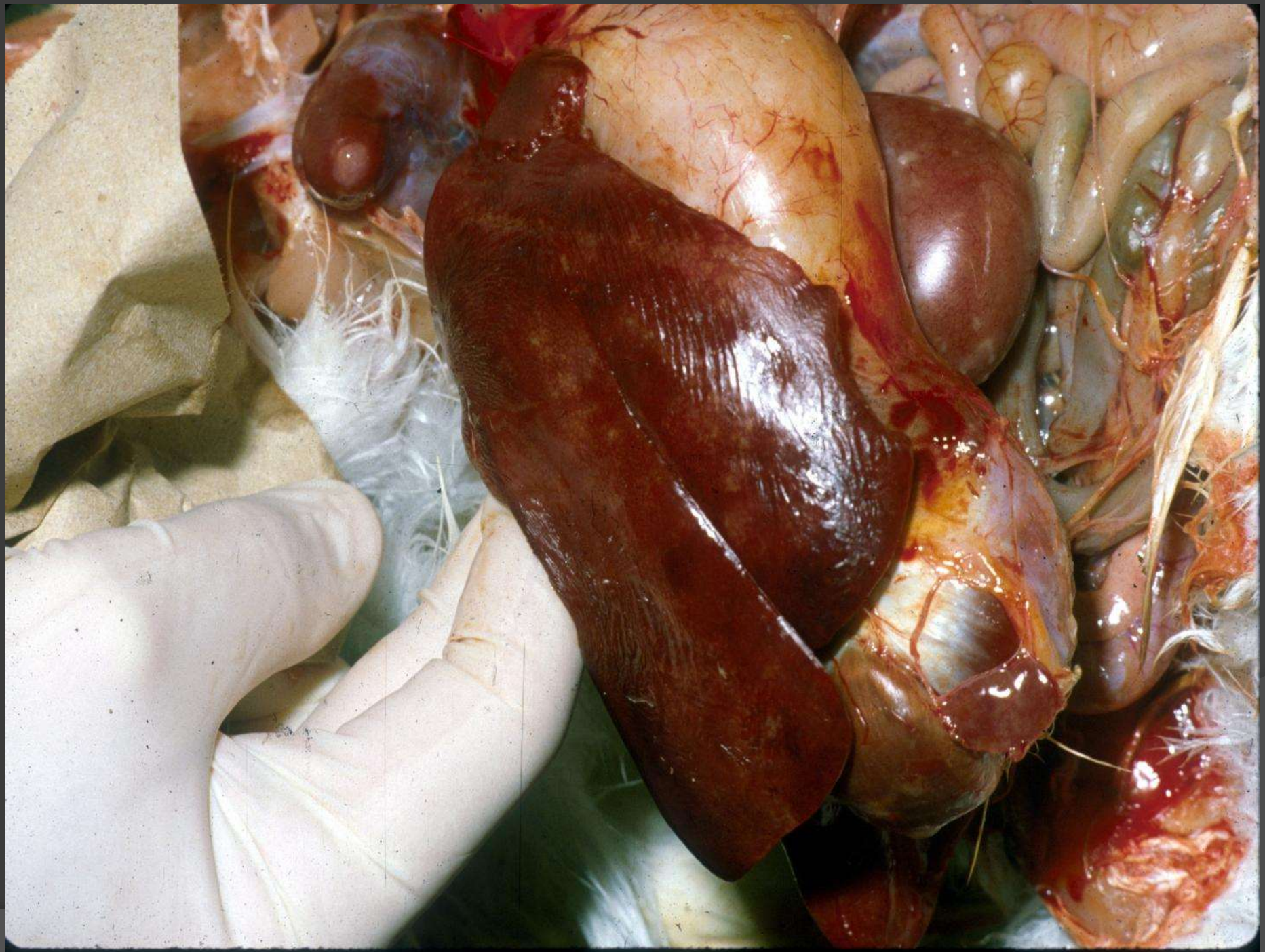
# MAREK'S DISEASE

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# Marek's Disease

- Marek's disease is characteristically a disease of young chickens, but older birds can also be affected.
- It's name after Jozsed Marek.
- Frequently there at tumors in the lymph nodes, skeletal muscle, visceral organs.



# Marek's Disease

- ⦿ Commonly affected organs
  - Ovary
  - Spleen
  - Liver
  - Kidneys
  - Lungs
  - Heart
- ⦿ Tumors can cause organ failure and kill the bird.

# Affected

- Birds 12-25 Weeks



- Mainly found in chickens, but occasionally affect pheasants, quail, game fowl, and turkeys.

# Causes

- Marek's disease is caused by a virus belonging to the **herpes virus** group.
- It appears that the virus is concentrated in the feather follicles and shed in the dander.
- The virus can survival months in dander from birds.

# Clinical Signs:

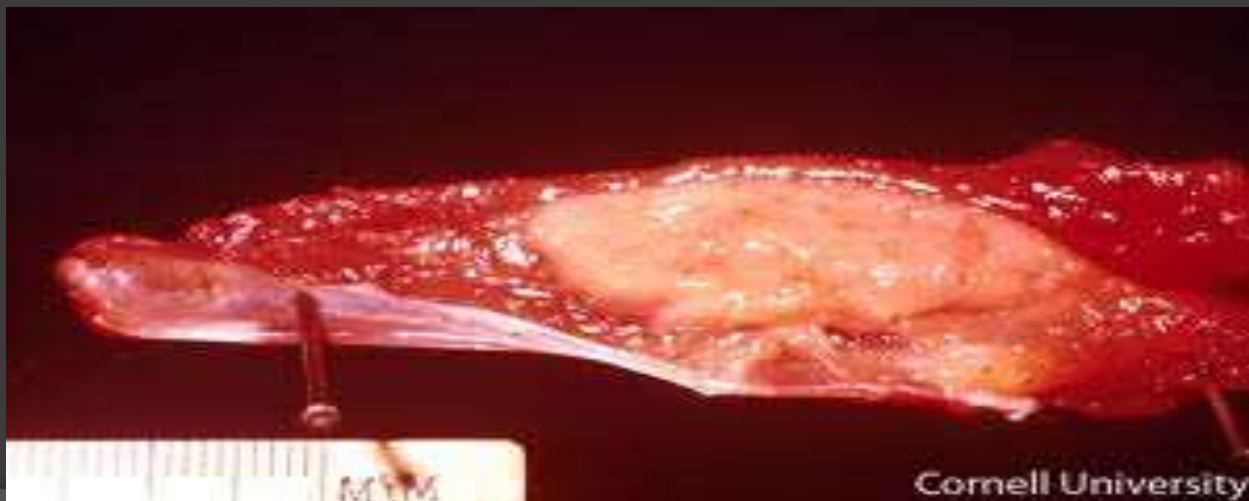
- Labor Breathing
- Lameness
- Paralysis
- Incoordination
- Blindness
- Paleness
- Pale Scaly Combs
- Greenish Diarrhea





# Diagnosis

- The demonstration of nerve enlargement.
- But the only way to be for sure it to test the manure.



# Nerve Enlargement

- Nerve Enlargement



# Nerve Enlargement

- The sciatic nerve of a bird infected with Marek's disease has been removed and shown on top with a normal nerve on the bottom for comparison.



# Transmission

- Spread by airborne infection involving follicle cells called **chicken dander**.
- Transmission of the virus is horizontal.
- At **room temperature** the **virus** of Marek's disease **remains viable** for **16 weeks** and in **litter** for **6 weeks**.
- **More susceptibility** of infection during the **first few weeks** of life.
- Infected birds will start to **shed the virus** in the **second or third week after infection**.
- And will **continue** to do so **throughout their life**, although they do develop **antibodies** against the virus.

# Treatment/Prevention

- ⦿ No treatment has been found yet.
- ⦿ Marek's can be vaccinated for within 3 days of birth.
- ⦿ Vaccination prevent tumors, but doesn't prevent the virus.
- ⦿ Also keep facilities clean and don't bring in foreign birds, and don't visit other chicken farms.

# Control

- Marek's Disease is highly contagious. If you have suspicion that a bird has it, isolate it quick.
- If the birds get it, and don't die, they will be carriers for life and will infect any new birds that are introduced.

# Types of Marek's Disease

- **Peracute** in 3–5 weeks old chicks; manifested with sudden death
- **Anaemia** in 3–6 weeks old chicken
- **Classical Marek's disease (range paralysis)** showing paralysis of two wings and legs due to peripheral nerve involvement. The nerves are 2–3 times their normal size. Central nerve involvement may also occur.
- **Acute Marek's disease** occurs mainly in 6–12 weeks old birds. It is manifested with tumours in the liver, spleen, kidneys, brain, spinal cord and dorsal root ganglia and with sudden death. The heart, lungs, gonads and muscles may also be involved.
- **Skin leucosis**. Noted in broiler chicken on postmortem examination in abattoirs as enlargement of feather follicles and associated lymphoid infiltrations (Fig. 199).
- **Transient paralysis** in 12–18 weeks old pullets become paralysed and may recover with 24 hours if moved to a quiet place.

The End!

Hope You

Learn

Something!!!!!!