

# Microscopic Pathology of Avian Encephalomyelitis in Broiler Chicks

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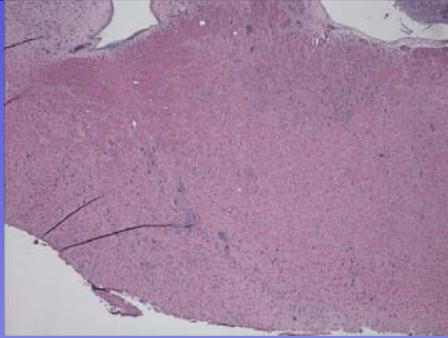
## Avian Encephalomyelitis Virus

- Enterovirus in Picornaviridae family
- Chickens, turkeys, pheasants, coturnix quail
- Signs manifest in young birds
  - Ataxia, paralysis, tremors of head and neck

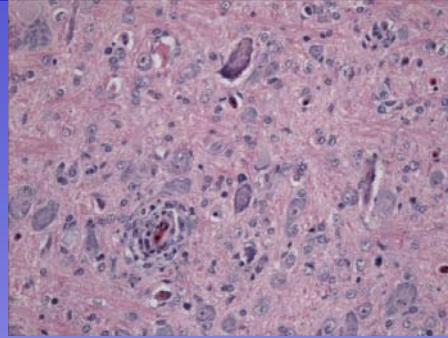
## Case History

- High mortality in 11 day old broiler chicks
- Neurological signs – ataxia, paddling, tremors
- 6 live chicks presented for necropsy and testing
  - Histopathology and virus isolation

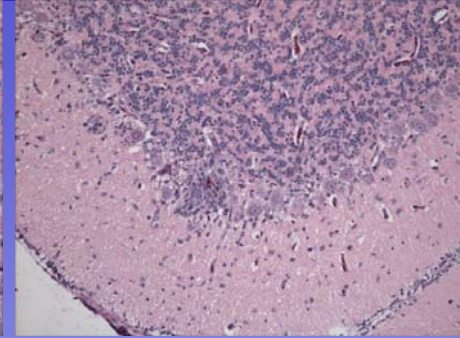
## Histopathology



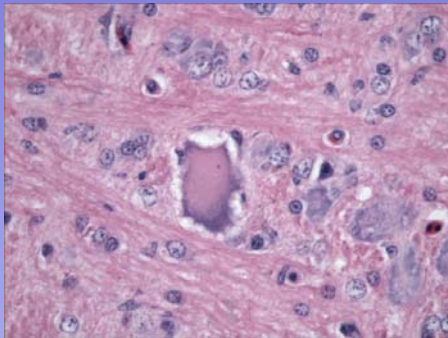
• Multifocal lymphoid infiltration in the brain



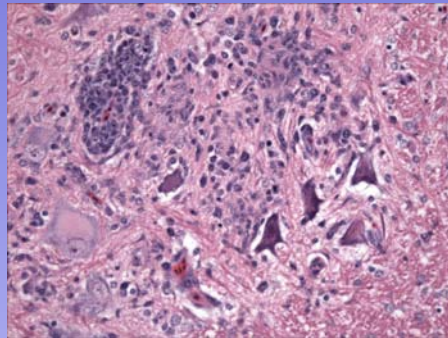
• Perivascular cuffing in the brain



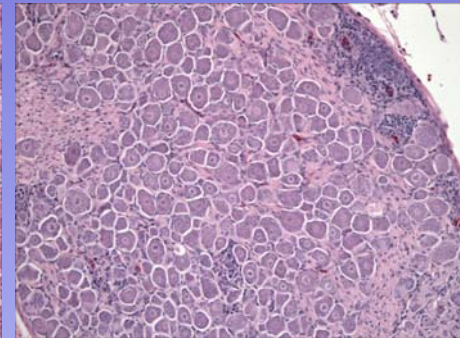
• Gliosis and glial nodule formation in the brain



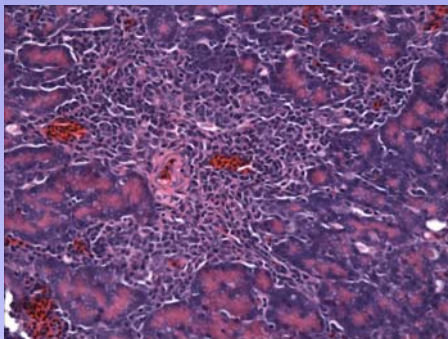
• Central chromatolysis of neurons in the brain



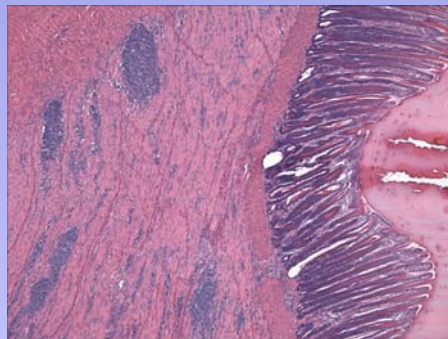
• Multifocal lymphoid infiltration with perivascular cuffing, gliosis, central chromatolysis, and neuronal degeneration in the spinal cord



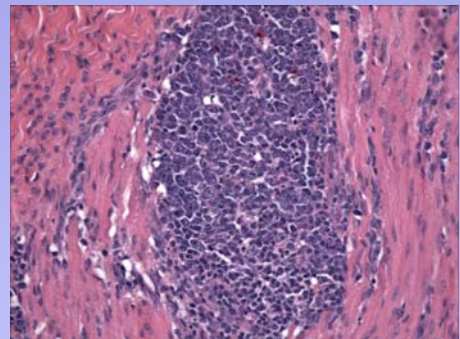
• Lymphocytic ganglionitis



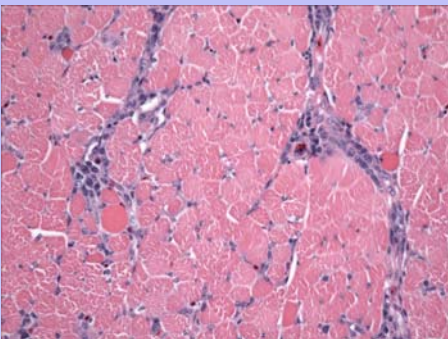
• Lymphoid infiltration in the pancreas



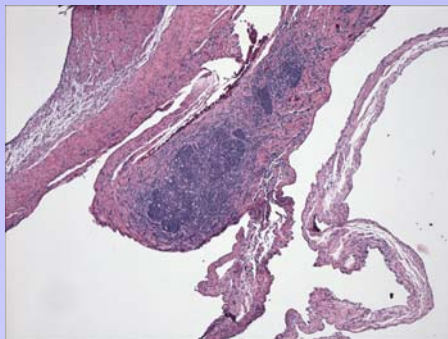
• Multifocal lymphoid infiltration in the ventriculus



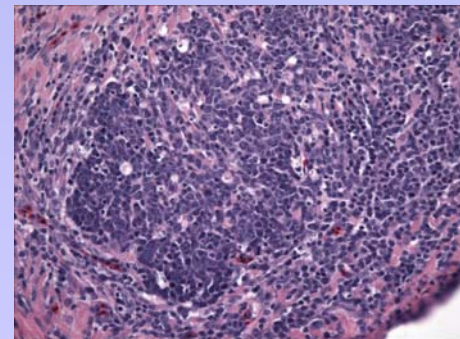
• Large, dense, lymphoid lesion in the ventriculus



• Multifocal lymphoid infiltration, perivascular cuffing, and fiber degeneration in muscle tissue



• Extensive multifocal lymphoid infiltration in the heart



• Large area of dense lymphoid infiltration in the heart

## Conclusion

- The results show no inclusion bodies, but the cell types and pattern of lesions observed are sufficiently unique to diagnose Avian Encephalomyelitis.
- Isolation of Avian Encephalomyelitis Virus was successful.