



ECVP/ESVP Summer School in Veterinary Pathology



Marie Curie Training Courses

Summer School 2004 – CNS 2036-96

SLIDE No. 2036-96: Tissue from a SHEEP
DESCRIPTION OF HISTOLOGIC FINDINGS

Cerebral cortex, hippocampus, brain stem; the white matter shows moderate multifocal perivascular infiltration of lymphocytes, plasma cells and macrophages as well as multifocal to coalescing areas of hypercellularity and vacuolization, interpreted as leukoencephalomalacia (pannecrosis), predominantly in the periventricular white matter. These necrotic areas contain large numbers of perivascular to diffuse infiltration of lymphocytes, macrophages and plasma cells as well as large numbers of gitter cells, associated with cholesterol clefts. Additionally, necrotic areas show moderate astrogliosis and microgliosis, with occasional gemistocytes. There is prominent periaxonal vacuolization and loss of eosinophilia, interpreted as demyelination, associated with hypereosinophilic, swollen axons (spheroids). Endothelial cells are enlarged, cuboidal with prominent nuclei (endothelial activation). Adjacent to the necrotic areas, there is moderate diffuse gliosis, associated with mild neuronal degeneration and necrosis.

The choroid plexus shows moderate perivascular infiltration of lymphocytes, plasma cells and macrophages.

MORPHOLOGIC DIAGNOSIS/DIAGNOSES:

Brain; lymphoplasmahistiocytic perivascular leukoencephalitis and plexus chorioiditis with multifocal leukoencephalomalacia and demyelination, diffuse, subacute to chronic, moderate

NAME THE DISEASE

Visna

ETIOLOGY

Ovine lentivirus (Visna-virus)

Scoring System

Slide description:

Design 2 points
Tissue (cerebral cortex, brain stem, hippocampus) 1 point

Descriptive features:

Perivascular white matter involvement 1 point
 Macrophages, lymphocytes, plasma cells 1 point
Periventricular necrosis (with description) 1 points
 Macrophages, lymphocytes, plasma cells 1 point
 Gitter cells 1 point
Astrogliosis 1 point
Gliosis (microgliosis) 1 point
Demyelination 1 points
Gemistocytes 1 point
Spheroids 1 point
Endothelial cell activation 1 point
Choroid plexus involvement and inflammatory cells 1 points

Total: 15 points

MORPHOLOGICAL DIAGNOSIS/DIAGNOSES:

3 points

NAME THE DISEASE:

1 points

ETIOLOGY:

1 point