



# ECVP/ESVP Summer School in Veterinary Pathology



## Marie Curie Training Courses

### Summer School 2006 – Emerging Infectious Diseases Case 13

**CASE 13 Provided by:** Mano Loeb, Kimron Veterinary Institute, Bet Dagan, Israel.

**Signalement:** Wild badger (*Meles meles canescens*), adult.

**History:**

The animal was found dead in a populated area in the North of Israel.

**Histology:** Tissue from a wild badger.

#### 1. DESCRIPTION OF HISTOLOGIC FINDINGS

Brain: Cerebellum and cerebral cortex. Within the gray and white matter of the cerebrum blood vessels are intensely filled with erythrocytes (hyperaemia) and several vessels (predominantly veins) exhibit a perivascular (within Virchow-Robin space) infiltration by moderate numbers of lymphocytes, plasma cells and few macrophages (perivascular cuffing) of one to several layers. This is also seen in some vessels in the cerebellar white matter, but with lower intensity. The parenchyma appears generally cell rich, predominantly due to microglial cells (microgliosis). Neurons of the cortex and occasional Purkinje cells contain single to several, variably sized (up to appr. 7 µm in diameter), round to ovoid, homogeneously eosinophilic cytoplasmic inclusion bodies (Negri bodies). The leptomeninges is multifocally infiltrated by low numbers of lymphocytes, macrophages and plasma cells which are also occasionally arranged around blood vessels.

#### 2. MORPHOLOGIC DIAGNOSIS

Brain, cerebellum and cerebral cortex; mild, multifocal, non-suppurative meningoencephalitis with neuronal intracytoplasmic eosinophilic inclusion bodies (Negri bodies), consistent with rabies virus infection.

#### 3. ETIOLOGY

Rhabdovirus (lyssavirus).