



ECVP/ESVP Summer School in Veterinary Pathology



Marie Curie Training Courses

Summer School 2008 – CNS Case 29

Case 29) 2146/97

Tissue from a DOG

Spinal cord: The slide shows an intradural, well demarcated, unencapsulated, nodular, expansile, moderately cellular mass measuring about 0,7 cm in diameter, that extends to cut borders and replaces about 80% of the normal parenchyma. The cells are arranged in small lobules and bundles, separated by variable dense fibrous stroma. There are two distinct cell populations. One population consists of interlacing fascicles of spindloid cells with indistinct cell borders. These cells measure about 10 x 30 µm and have a moderate amount of a fine fibrillar, eosinophilic cytoplasm. The nucleus to cytoplasmic ratio is about 1:4 to 1:5. The centrally located nuclei of these cells are ovoid to elongated with finely stippled chromatin and an equal amount of eu- and heterochromatin. Each nucleus possesses 1 to 2 distinct, basophilic nucleoli. The second population of cells forms tubules and acini and occasionally form structures resembling primitive glomeruli. Cells are columnar, have distinct cell borders and are measuring about 10 x 20 µm. They have a moderate amount of an eosinophilic, slightly granular cytoplasm. The nucleus to cytoplasmic ratio is about 1:2 to 1:3. These cells have a basally located, ovoid to polygonal nucleus and a finely stippled chromatin pattern with equal amounts of eu- and heterochromatin. Each nucleus contains 1 – 2 distinct, basophilic nucleoli. There is a mild anisocytosis and anisokaryosis. Mitoses are range from 0 -2 per high power field. The adjacent white matter displays multiple dilated myelin sheaths, few of them containing swollen axons (spheroids).

Morphological diagnosis:

spinal cord, thoracolumbar spinal cord tumor of young dogs (spinal neuroblastoma)