



ECVP/ESVP Summer School in Veterinary Pathology

Summer School 2012 – Cytology

H04-767

Bernese mountain dog, 5 years, male
Tail, dermal nodule, rapid growth Imprint

Description:

The smear is highly cellular, cells are well preserved and in large areas the cells are spread as monolayer and can be evaluated. There are large numbers of highly polymorphic, usually individualized, large (averaging 40-50µm), round to ovoid and spindled cells of highly variable size (severe anisocytosis). They have abundant grey-blue to intensely blue cytoplasm that is occasionally vacuolated. Nuclei are large (up to 20µm), round to ovoid and some times bean-shaped. The chromatin is finely reticulated and usually multiple (up to 7) small to medium sized, round to angular nucleoli are present. There is marked variation of nuclear and nucleolar size (severe anisokaryosis and anisonucleoliosis). A moderate to high number of mitotic figures - some of them are atypical – are seen and multinucleated neoplastic cells with up to 5 randomly distributed, variably sized nuclei are present. In the background moderate numbers of erythrocytes, neutrophilic granulocytes without degeneration and small lymphocytes are present.

Diagnosis:

Skin: Pleomorphic (malignant) mesenchymal neoplasia, not classifiable

Staining recommended:

Lysozyme for histiocytes
Factor VIII for endothelial cells

Comment:

Was cytologically diagnosed as possible histiocytic sarcoma but turned out to be a haemangiosarcoma in histology.

Score

Design	2
High cellularity	1
Good preservation of cells, monolayer, rare thick areas	1
Neoplastic cells	
- large	1
- round / ovoid or spindled	1
- abundant cytoplasm	1
- grey – basophilic	1



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- round / ovoid and bean-shaped nucleus	1
- reticulated chromatin	1
- multiple nucleoli	1
- round to angular nucleoli	1
- multinucleated cells	1
- moderate number of mitotic figures	1
- anisocytosis, - karyosis, - nucleoliosis	2
Background: erythrocytes, neutrophils, lymphocytes	1
Diagnosis	2
Staining	1