



ECVP/ESVP Summer School in Veterinary Pathology



Marie Curie Training Courses

Summer School 2007 – Cytology Case 8

Case #8 – C428/06 A

DOG

Bone (scraping)

Cytologic description

Good cellular and well preserved smear with some naked nuclei. On a proteinaceous to fibrillar purple background there is a mixed population of cells with prevalence (90%) of a pleomorphic population of spindle to round, variably sized (15-40 μ), neoplastic cells with variable (usually moderate) N/C ratio. Margins of the cells are variably defined. They have a roundish, peripheralized, often macrokaryotic nucleus. The chromatin is coarse and irregularly clumped. There are 1-3 prominent nucleoli with bvariable size and shape. Some cells are binucleated. The cytoplasm is deeply basophilic, occasionally with small, clear vacuoles. Atypical mitosis are fairly common. Moderate to severe anisocytosis and anisokaryosis. There are also some non degenerated neutrophils and lymphocytes.

Score

Style	(2 points)
Background	(1 point)
Good cellularity	(1 point)
Prevalence of spindle to round cells	(2 points)
Size of cells and N/C ratio	(2 points)
Nuclear features	(3 points)
Binucleation	(1 point)
Cytoplasmic features	(2 points)
Anisocytosis/anisokaryosis	(1 point)
Mitosis	(1 point)
Neutrophils and lymphocytes	(1 point)

MD

Malignant spindle cell neoplasia (most likely osteosarcoma)	(3 points)
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