



ECVP/ESVP Summer School in Veterinary Pathology

Summer School 2012 – Cytology

S95-664

Golden Retriever, 9 years, male

Nodules in liver, pancreas, spleen, heart, mesenteric lymph node Imprint from liver

Description

The smear is highly cellular and composed of large numbers of highly pleomorphic individualized round cells. Their nuclei usually average the diameter of 4 red blood cells, but are highly variable in size (anisokaryosis). They are round to lobulated and often gyriform / convoluted. The chromatin is fine and homogeneous, rarely small clumps are present. Nucleoli are inconspicuous. There is a moderate to large amount of lightly blue cytoplasm and cell borders are distinct. No mitotic figures or lymphoglandular bodies are seen. The background population consist of few red blood cells, viable neutrophils and pale acidophilic amorphous material (proteinaceous fluid).

Diagnosis

Liver: Polymorphic round cell tumour

Further diagnostic procedures:

CD3 / CD79a: for T- and B-Lymphomas

Chloroacetate esterase: granulocytic cell line

Alpha naphthylacetat esterase: monoblastic cell line

Comment

Was positive for CD3

Score

Design	2
High cellularity	1
Round cells, individualized	1
High polymorphism	1
Nuclear diameter	1
Lobulated / gyriform nuclei	1
Fine chromatin	1
No nucleoli	1
Moderate (high) amount of cytoplasm	1
Distinct cell borders	1
Marked anisokaryosis	1
No mitotic figures	1



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Background: red blood cells	1
Diagnosis	2
Further diagnostic procedures	2