

ECVP/ESVP Summer School in Veterinary Pathology

Summer School 2012 – Cytology

Z12-1008

Dog, Rottweiler, male, 4 y Abdominal effusion

Description

The cellularity of the abdominal fluid is highly increased. Cells are evenly stained and spread as a monolayer. Staining precipitates are present. There are about 90% neutrophils and 10% mononuclear cells (mostly macrophages and fewer small lymphocytes). Neutrophils are often degenerate. Mostly karyolysis is visible characterized by nuclear swelling, loss of staining intensity, hyalinization of chromatin. However, nuclear membranes are rarely disrupted. Karyopyknosis (condensed, small nuclei) and karyorrhexis (fragmentation of nuclei) are rarely seen. Short rods can be found in the cytoplasm of neutrophils. There is abundant deposition of mainly extracellular, intensely greenish to yellowish material forming small conglomerates (interpreted as bile). Bile is also phagocytosed by macrophages. In addition less frequently bluish homogenous material is deposited in small amounts (mucus?).

Diagnosis

Severe, acute, purulent bile peritonitis with intracytoplasmic bacteria (rods)

Comment

A rupture of the gall bladder was the cause.

Score

Design	2
High cellularity, monolayer	1
Ratio of cell types present (90% neutrophils...)	1
Degeneration	1
Karyolysis (with description)	2
Karyorrhexis (with description)	2
Bacteria	1
Bile (with description)	3
Bile within macrophages	
Background population (Lymphocytes, macrophages)	2
Deposition of bluish material	1
Diagnosis	4