ECVP/ESVP Summer School in Veterinary Pathology

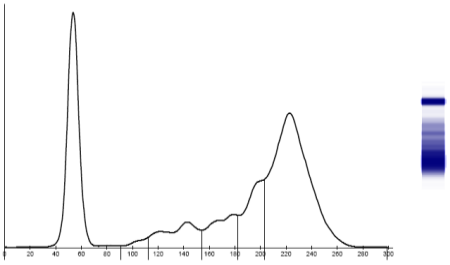
Summer School 2009 – Clinical Pathology 9

History:

6 month old Persian cat, male with fever, anorexia, icterus and abundant (more than 1 L) abdominal effusion. A moderate amount of thoracic effusion is also detectable on x rays.

CBC reveals lymphopenia, biochemistry and serum protein electrophoresis are reported below

glucosio (mg/dl)		73-134	ALT (GPT) (U/l)	195	6-83
prot. totali (g/dl)	12,4	5,4-7,8	AST (GOT) (U/l)		26-43
albumine (g/dl)	2,57	2,1-3,3	GGT (U/l)	2,8	<5,1
urea (mg/dl)	68,7	20-60	ALP (U/l)		25-93
creatinina (mg/dl)	1,23	<1,8	LDH (U/l)		63-273
bilirubina totale (mg/dl		<0,5	amilasi (U/l)		700-940
colesterolo (mg/dl)	126	95-130	lipasi (U/l)		0-83
trigliceridi (mg/dl)	2	10-114	CK (U/l)		7,2-28,2



Physico-chemical analysis of the effusion: yellow, transparent, sticky, total proteins = 5,4 g/dL, SG = 1030; cells = 0,4 x 10^3/□ l

Cytological description

Abundant background composed by a very dense eosinophilic background. In the areas/slides on which the background material is more monostratified on the slides it is possible to detect a granular appearance of this eosinophilic material

Within the background material described above, a mixed population of neutrophils, mostly non degenerated, lymphocytes, macrophages and/or reactive mesothelial cells is present. Morphological details of the cells are often difficult to detected since cells are strongly embedded in the background material and/or tend to be “dehydrated”

Cytological diagnosis:

Mixed (pyogranulomatous) inflammation

Comment:

The cytological appearance of the effusion is consistent with the diagnosis of feline infectious peritonitis. This diagnosis is also supported by the macroscopical characteristics of the fluid, and by protein content and cellularity. The biochemical pattern and the electrophoretical profile are also consistent with FIP. The negative result of PCR in the effusion and of serology does not exclude FIP, since antibodies and viruses are often “sequestered” in tissues and are not detectable in effusions and blood respectively (in the same way, a positive result would not have supported a diagnosis of FIP in the case of a “doubt” cytological results since the large majority of cats are actually seropositive independently on the presence of effusions). To definitely confirm FIP the acute phase protein AGP should be measured.

ECVP/ESVP Summer School in Veterinary Pathology

Summer School 2009 – Clinical Pathology 9

SCORING:	up to
Background	1,0 pt
Mixed population of :	
Non degenerated neutrophils	1,0 pt
Other inflammatory cells	1,0 pt
Cytological diagnosis:	1 pt
Comment	
FIP very likely	0,5 pts
Importance of electrophoresis	0,5 pts
Serology and PCR not important	0,5 pts
AGP	0,5 pts
TOTAL	**6,0 pts**