



# ECVP/ESVP Summer School in Veterinary Pathology

Summer School 2012 – Cytology

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## Case #2

Signalment: Dog; belgian shepherd, f, 7yrs

Sample: abdominal effusion

## Description of cytological findings

The smear is highly cellular, adequately stained. Dark, yellow-brown, amorphous material is free in the background, often surrounded by inflammatory cells (neutrophils and macrophages).

Erythrocytes are commonly present (blood contamination). There is a mixed population of cell with large prevalence of neutrophils (70-80%). Most of them are hypersegmented, some have condensed nuclei (pyknosis) and few have nuclear swelling and hyalinization with a loss of nuclear segmentation (karyolysis). Bacteria (mixed population of cocci and bacilli) are very rarely found in the cytoplasm of neutrophils.

Large, foamy macrophages sometimes containing purple granules, bile pigment, erythrocytes (erythrophagocytosis), blue pigment (hemosiderin) are present.

Rare large mesothelial cells with deep blue cytoplasm (reactive mesothelial cells).

Naked nuclei are occasionally present.

## Score

Design	(2 points)
High cellularity	(1 point)
Bile pigment	(2 points)
Mixed population	(1 point)
Prevalence of neutrophils	(1 point)
Hypersegmentation/pyknosis/karyolysis	(2 points)
Mixed population of bacteria (bacilli and cocci)	(2 points)
Foamy macrophages	(1 point)
Erythrophagocytosis	(1 point)
Hemosiderin (siderophages)	(1 point)
Mesothelial reactive cells	(1 point)
Blood contamination/naked nuclei	(1 point)

## MD

Effusion – moderate (acute?) mixed neutrophilic and macrophagic bile and septic peritonitis with recurrent hemorrhage and intralesional bacteria (4 points)

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