



ECVP/ESVP Summer School in Veterinary Pathology

Summer School 2012 – Cytology

Case #3

Signalment: Dog, boxer, F, 9yrs

Sample: vaginal discharge

Description of cytological findings

The smear is moderately to highly cellular (variability in slides), moderately to adequately stained, with a mixed population of cell.

Abundant light pink, homogeneous to granular proteinaceous background.

Some slides have prevalence of neutrophils, some have prevalence of epithelial mucosal cells.

Neutrophils are hypersegmented or have nuclear swelling and hyalinization with a loss of nuclear segmentation (karyolysis).

Large (50 micron in diameter), individualized, polygonal cells with high N/C ratio, with round to oval, central nucleus, finely granular chromatin and abundant light pink to light blue (depending on slides) cytoplasm are present (non-keratinizing epithelial cells).

In few slides there are some columnar epithelial cells from the upper genital tract.

Variable numbers of mostly often poorly stained stained, 5-7 microns in width, regularly septated, branching hyphae are present.

Naked nuclei, erythrocytes (mild blood contamination) and purple fibrillar material (nuclear strands) are present

Score

Design	(2 points)
Adequacy	(1 point)
Proteinaceous background	(1 point)
Cellularity	(1 point)
Mixed population	(1 point)
Neutrophils	(1 point)
Hypersegmentation/karyolysis	(2 points)
Epithelial cells (description)	(3 points)
Hyphae (description)	(3 points)
Naked nuclei/blood contamination/nuclear strands	(1 point)

MD

Severe, acute purulent and catarrhal vaginitis with intralesional fungal hyphae	(4 points)
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