

# ECVP/ESVP Summer School in Veterinary Pathology

Summer School 2012 – Cytology

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## Case #7

Signalment: Dog, English setter, M, 10yrs

Sample: skin

### Description of cytological findings

The smear is highly cellular and adequately stained.

There is a mixed population of cells with large prevalence of highly cohesive, medium-sized (10-30 microns), round to cuboidal to columnar cells.

Cells have variable medium to high N/C ratio, indistinct cell borders inside clusters, distinct at their margins and bright blue cytoplasm, often containing small clear vacuoles. Cells tend to arrange in rows and, very often, form acinar structures. Nuclei are round (2-3 erythrocytes in diameter), polarized, with granular to coarse chromatin and, when present, 1 distinct nucleolus. Binucleated cells are present. Mitotic figures are rare.

Anisocytosis and anisokaryosis are moderate.

Rare macrophages.

Erythrocytes (moderate blood contamination), frequent naked nuclei, spindle mesenchymal cells (fibroblasts) and some aggregate of purple extracellular matrix (ECM) are present.

### Score

Design	(2 points)
Cellularity	(1 point)
Mixed population	(1 point)
Prevalence of cohesive cells	(1 point)
Cells size and shape	(2 points)
N/C ratio	(1 point)
Nuclear features	(2 points)
Binucleation	(1 point)
Cytoplasmic features	(2 points)
Acinar structures	(1 point)
Mitosis	(1 point)
Anisocytosis/anisokaryosis	(1 point)
Blood contamination/naked nuclei/mesenchymal cells/ECM	(2 points)

### MD

Skin – Adenocarcinoma	(2 points)
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