



ECVP/ESVP Summer School in Veterinary Pathology

Summer School 2012 – Cytology

H94-738

Giant schnauzer, 12 years, female neutered
Skin nodule on hip, 7 cm diameter, soft, grey colour
Imprint from cut section

Description

The smear is moderately to highly cellular. Moderate to high numbers of isolated, large (diameter up to 40µm), round cells with a large amount of cytoplasm (low nuclear-to cytoplasmic ratio) containing large numbers of intensely purple stained small (diameter up to 1µm) granules (consistent with mast cells). Nuclei are often obscured by these granules, are round and usually centrally located and middle sized. Nucleoli are round, basophilic and small, but are also often obscured by the granules and are rarely visible. There is a mild variation of the N:C ratio, of the cell size (anisocytosis) and of the nuclear size (anisokaryosis). Rarely up to three nuclei are present in one cell. Large numbers of eosinophilic granulocytes with distinct orange granules are present. Rarely ovoid to spindle shaped cells with a large amount of lightly bluish cytoplasm and large (up to 15µm), ovoid nuclei, often exhibiting a medium sized, distinct nucleolus and containing finely reticular chromatin (most likely activated fibroblast). In the background moderate numbers of small, purple granules (originating from ruptured / degranulated mast cells) and a moderate amount of intensely eosinophilic, lightly granular masses (extracellular matrix) as well as few erythrocytes and nuclear streaming (artificial cell destruction during preparation) is present.

Diagnosis:

Skin: Mast cell tumour (highly differentiated, most likely grade 1 or 2)

Comment:

Extracellular matrix is probably not present in all slides

Score

| | |
|---------------------------------|---|
| Design | 2 |
| Moderate to high cellularity | 1 |
| Mast cells | 1 |
| Purple granules | 1 |
| Round, centrally located nuclei | 2 |
| Low N/C ration | 1 |
| Anisocytosis/anisokaryosis | 2 |
| Mast cells with double nuclei | 1 |



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|---|---|
| Eosinophils | 1 |
| Fibroblasts, activated | 2 |
| Background: granules, matrix, erythrocytes, nuclear streaming | 4 |
| Diagnosis | 2 |