



ECVP/ESVP Summer School in Veterinary Pathology

Summer School 2010 - Mock Exam

1. Tissue from a Dog

Testis

Multiple, unencapsulated, poorly demarcated, irregularly shaped neoplastic masses are largely obliterating normal architecture of the testicular parenchyma. Tumor cells are arranged in packets or sheets supported by a fine fibrovascular stroma. The tumor cells are polygonal, with granular or vacuolated eosinophilic cytoplasm. Nuclei are moderately sized, central or paracentral, and round or ovoid, with reticulated chromatin and 1-2, prominent, central, deeply eosinophilic nucleoli. There is moderate anisokaryosis and mitotic figures are not noted.

Further, intermingled tumor masses contain tumor cells lining and filling numerous variably sized and shaped tubular structures that are supported by moderate amounts of collagenous stroma. The tumor cells are arranged perpendicularly to tubular basement membranes and are polygonal, columnar or spindle-shaped with a large amount of finely fibrillar, pale-staining / clear eosinophilic cytoplasm that has well-defined margins. Nuclei are basal and ovoid with finely clumped, sometimes partially marginated chromatin and 1-2 small, paracentral or eccentric, deeply eosinophilic nucleoli. There is moderate anisokaryosis. Similar tubules are entrapped with the surrounding interstitial cell tumors.

Remaining seminiferous tubules are lined only by Sertoli cells, and some are entrapped within tumor masses. There is condensation of their supporting stroma, that contains scattered lymphocytes.

Cross-sections through the epididymal duct do not contain spermatozoa. The epididymal interstitium contains multifocal infiltrates of lymphocytes and plasma cells.

Morphologic diagnosis / diagnoses

Interstitial (Leydig) cell tumours, multiple, testis. Sertoli cell tumour, testis. Could also accept "collision tumor" Testicular atrophy, diffuse, severe, testis.

Marks

| Testis | 1 |
|---|-----|
| Sertoli cell tumors | |
| multiple | 0.5 |
| tubules | 1 |
| amount of stroma | 0.5 |
| cell shape / perpendicular to basement membrane | 1 |
| cytoplasm: fibrillar | 0.5 |
| cytoplasm: clear, pale | 0.5 |





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| nucleus: ovoid shape | 0.5 |
|--|------|
| nucleus: basal location | 0.5 |
| anisokaryosis | 0.5 |
| mitotic index (low) | 0.5 |
| Interstitial cell tumors | |
| multiple | 0.5 |
| intermingled | 0.5 |
| packets or sheets | 1 |
| stroma (fine fibrovascular) | 0.5 |
| cytoplasm: eosinophilic | 0.5 |
| cytoplasm: granular | 0.5 |
| cytoplasm: vacuolated | 0.5 |
| anisokaryosis | 0.5 |
| mitotic index (low) | 0.5 |
| Remaining seminiferous tubules: only Sertoli cells | 1 |
| entrapped seminiferous tubules within the tumors | 0.5 |
| Remnant testis: lymphocytes | 0.5 |
| Interstitium of the epididymis: lymphocytes | .0.5 |
| Epididymis: absence of spermatozoa | .0.5 |
| Morphologic diagnoses | 3 |
| Style | 2 |