Neoplasia I: Colorectal cancer – additional veterinary slide comments

Answers

Pathological process identification and report writing

Q1. Describe the slide, identify the pathological process and give a diagnosis

S2010-142A – The section of 5th left mammary gland shows a moderately encapsulated, well demarcated neoplastic mass. The neoplastic cells are arranged in two patterns; the predominant pattern consists of solid nests of cells while the lesser pattern consists of cells arranged in tubular patterns. Both are supported by a moderate fibrous connective tissue stroma and intersected by fibrous trabeculae. The neoplastic cells vary from polygonal to low cuboidal forms with a moderate amount of eosinophilic cytoplasm and moderately defined cellular margins. The nuclei are round with a finely stippled chromatin and single indistinct nucleolus. There is moderate anisokaryosis and anisocytosis. The mitotic index is 30 per 10 high power fields. Within the mass there are large cavitated areas partially filled with degenerate necrotic eosinophilic cellular material. Basophilic-staining material (mineralisation) is present multifocally. Adjacent to the main mass are smaller foci of neoplastic cells with a similar morphology to the main mass, but also lobules of relatively normal mammary gland. The overlying haired skin is relatively normal.

Diagnosis: Mammary adenocarcinoma; solid with tubular differentiation

Q2. Describe the slide, identify the pathological process and give a diagnosis

S2010.397: This section of inguinal lymph node of a cat shows that the normal nodal architecture has been disrupted and effaced by large numbers of neoplastic cells. The neoplastic cells are predominantly arranged in a tubular pattern with occasional papillary forms, supported by a moderate fibrous connective tissue stroma. The neoplastic cells are cuboidal with a moderate amount of eosinophilic cytoplasm and a poorly defined cellular margin. The nuclei are round to ovoid with a densely stippled chromatin pattern and a single distinct nucleolus. There is a moderate degree of anisokaryosis and anisocytosis (variation in nuclear size/shape and cytoplasmic appearance, respectively). The mitotic index is 65 per 10 high power fields. Within some of the tubules there are moderate amounts of degenerate eosinophilic cellular material and centrally within the main mass there are large areas of necrosis.

Diagnosis: Tubulo-papillary mammary carcinoma