

SPONTANEOUS BARRETT ESOPHAGUS-LIKE LESION IN A DOG

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Multiple esophageal biopsies were obtained via endoscopy, and submitted for evaluation by light microscopy from a thirteen year-old, castrated male, Standard Poodle. The dog presented for painful swallowing and endoscopy showed the distal esophagus to be inflamed with a smooth, broad based, mass protruding into the lumen approximately 1cm proximal to the cardiac sphincter. Microscopically, the normal stratified squamous mucosa was absent and replaced by multiple frond-like, papillary projections of well differentiated, pleomorphic simple columnar epithelium supported by a fibrous stroma. Most of the columnar cells had oval, hyperchromatic, tightly packed, basal nuclei with eosinophilic cytoplasm and occasionally contained a large light blue apical vacuole. Occasionally there were regions of epithelial cells with large oval, hypochromatic, open-faced nuclei and scant amphophilic vacuolated cytoplasm. Clusters of atypical (dysplastic) cells extended through the basal lamina and into the submucosa forming small packets of polygonal cells with stacked nuclei. There was marked anisokaryosis and anisocytosis with moderate inflammation of the lamina propria consisting of lymphocytes, plasma cells and occasional mast cells.

Barrett esophagus in humans is a result of chronic gastroesophageal reflux and occurs in up to 10% of people with gastroesophageal reflux disease (GERD). It is the single most important risk factor for esophageal adenocarcinoma in humans. There are two criteria for the diagnosis of Barrett esophagus: 1) Endoscopic evidence of columnar epithelium above the gastro-esophageal junction, and 2) and histologic evidence of intestinal metaplasia. Barrett esophagus-like lesions have been described experimentally in dogs that have undergone surgical intervention to induce gastro-esophageal reflux. To the author's knowledge, this is the first described spontaneous Barrett esophagus-like lesion in a dog.