Case #AP11-949

Presenter: Allison C. Boone, DVM

Anatomic Pathology Resident
North Carolina State University-
College of Veterinary Medicine
(NCSU-CVM)
Signalment and Chief Complaint

• 11-year-old, male, castrated, mixed breed dog

• Presented to NCSU-CVM Small Animal Emergency
  – Vomiting
  – Weight loss
  – Blocked esophagostomy tube (placed due to inappetence)
  – Bilaterally enlarged submandibular salivary glands
Physical Exam Findings

- Bilaterally enlarged and firm submandibular salivary glands
- Hypersalivation
- Nausea noted on abdominal palpation
- Tongue tip necrosis
- Increased lung sounds bilaterally
- Weak and reluctant to walk
- Generalized muscle wasting, poor muscle tone
Results of Diagnostic Tests

• CBC:
  – mild leukocytosis characterized by a neutrophilia with a regenerative left shift

• UA and serum Chemistry: unremarkable

• Cytology of right and left submandibular salivary glands:
  – suppurative inflammation with abundant amorphous extracellular material
Gross Findings

• Enlarged salivary glands
  – Left  2.5 x 2.5 x 1.0cm
  – Right  4.0 x 4.0 x 3.0cm

• Enlarged hepatic and peripancreatic lymph nodes
  – 2.0 x 1.0 x 1.0cm
  – Cortical-medullary architecture obscured

• Submuosal and muscularis thickening of the lesser curvature of the stomach
  – 0.5cm to 1.5cm thick
Salivary Gland
Salivary Gland
Salivary Gland
Morphological Diagnosis

• Submandibular salivary gland:
  – marked, multifocal, coagulative necrosis with thrombosis, ductular hyperplasia and squamous metaplasia
Canine Necrotizing Sialometaplasia

• Phenobarbital-responsive sialadenosis

• Rare disease, often mistaken for malignant neoplasia

• Unilateral or bilateral enlargement of submandibular salivary glands

• Clinical signs: gagging, ptyalism, lip-smacking, vomiting, anorexia, and pain
Canine Necrotizing Sialometaplasia

• Etiology unknown

• Proposed etiologies:
  – esophageal lesions
  – type III hypersensitivity

• Can be treated successfully with Phenobarbital; underlying mechanism is unknown
Gastric Carcinoma
Questions?

• Thank you!
  – Drs. Luke Borst and Yongbaek Kim
  – Sandra Horton and the NCSU-CVM Histopathology Laboratory
THE END
References