

**Case Report Presentations**  
**Phi Zeta Research Day**  
**March 10, 2015, 3:00-3:45pm**  
**Mosier E-107**

- 3:00 – 3:15    **Paxton D. Harness** – The Utility of Obtaining Both Right and Left Lateral Abdominal Radiographs in Assessing Gastric Foreign Material
- 3:15 – 3:30    **Mackenzie Hallman** – Radiographic pulmonary bronchial pattern in dogs with disseminated pulmonary carcinoma.
- 3:30 – 3:45    **Sarah M. Crilly** – Anicteric Gall Bladder Rupture in dogs: 4 cases (2007-2013)

5:00 – 6:00 pm    **Reception and Awards Ceremony** Frick Auditorium and Foyer, 2<sup>nd</sup> Floor, Mosier Hall

- Initiation of New Members to Phi Zeta
- Announcement & Presentation of Awards Recognizing Research & Scholarship Accomplishments
- Closing Comments

## **The Utility of Obtaining Both Right and Left Lateral Abdominal Radiographs in Assessing Gastric Foreign Material**

**Paxton D. Harness, DVM**

Faculty Sponsor: David S. Biller, DVM, DACVR

Author(s): Paxton D. Harness, DVM

A 15-month-old male neutered English Bulldog presented for evaluation of acute vomiting and anorexia. The owner reported finding a piece of a blanket in the vomitus the patient had previously torn up. Findings on physical examination were unremarkable except for pain on abdominal palpation. Radiographs of the abdomen were obtained. Right lateral and ventrodorsal radiographs of the abdomen reveal a normally positioned severely distended stomach containing fluid and gas opacity. In addition, a distended loop of intestine containing linear inhomogeneous soft tissue opacity material is present. A left lateral abdominal radiograph reveals a well circumscribed tubular soft tissue structure surrounded by gas present within the pylorus and extending into the proximal duodenum. A diagnosis of mechanical obstruction of the pyloric outflow and proximal duodenum with foreign material was made on the basis of radiographic findings. Fluid and gastric contents move to the dependent portion of the stomach, and gas will rise to the non-dependent portion of the stomach. Obtaining left and right lateral views allows this gas to be used as negative contrast to assess different regions of the stomach. In this case, abdominal radiographs including ventrodorsal and both left and right lateral projections provided an accurate diagnosis of a gastric foreign body with a linear component extending into the duodenum. This information was critical in determining surgery to be the best option for the successful treatment of this patient.

## **Radiographic pulmonary bronchial pattern in dogs with disseminated pulmonary carcinoma.**

**Mackenzie Hallman**

Author(s): Mackenzie Hallman

A bronchial pulmonary pattern is one in which either cellular or fluid infiltration of the bronchial walls or the peribronchial interstitial space causes radiographically-detectable soft tissue opaque thickening of the pulmonary bronchial walls. This radiographic pattern is most commonly associated with bronchial inflammation secondary to infectious or allergic airway diseases, inhaled airway irritants, or peribronchial edema. Few references list neoplasia as a differential diagnosis for a bronchial pattern in small animals. Here, thoracic radiographs from five dogs with a diffuse bronchial pattern due to cytologically or histologically confirmed carcinomas are reviewed. The most common historical finding was acute onset dyspnea. Radiographic findings included diffuse but asymmetric bronchial wall thickening without bronchiectasis. Some dogs had radiographic and echocardiographic evidence of pulmonary hypertension as well. Pulmonary carcinoma should be considered a differential diagnosis for older dogs with diffuse bronchial pattern without evidence of chronic airway disease.

## **Anicteric Gall Bladder Rupture in dogs: 4 cases (2007-2013)**

**Sarah M. Crilly**

Author(s): Sarah M. Crilly, Kenneth Harkin, David S. Biller

**Objective:** To describe the clinical, laboratory, and surgical findings in four dogs with confirmed gall bladder rupture and unremarkable serum total bilirubin concentration.

**Design:** Retrospective case series.

**Animals:** Four dogs with ruptured gall bladder, free abdominal fluid, and unremarkable serum total bilirubin.

**Results:** All dogs presented to the KSU-VHC from November 2007 through November 2013 for evaluation of abdominal pain. Gall bladder rupture was suspected ultrasonographically based on the presence of mild to marked abdominal effusion and either an unidentifiable gall bladder (one case), or a distended gall bladder with a suspected gall bladder mucocele. Serum total bilirubin was less than 0.5 mg/dL (patient range 0.1 mg/dL – 0.5 mg/dL) in all cases preoperatively. Peritoneal fluid analysis was not diagnostic for gall bladder rupture in any of the four dogs. In one dog, comparison of serum bile acids (48  $\mu\text{mol/L}$ ) to peritoneal fluid (1070  $\mu\text{mol/L}$ ) was supportive of a gall bladder rupture. Definitive diagnosis of gall bladder rupture was obtained during exploratory laparotomy.

**Conclusions:** Gall bladder rupture should be considered in cases of acute abdominal pain, even when serum total bilirubin is normal, especially when a mucocele is suspected on abdominal imaging and free abdominal fluid is present. When peritoneal fluid analysis does not demonstrate increases in total bilirubin concentration or the presence of bilirubin crystals to support the diagnosis of gall bladder rupture, a comparison of serum to peritoneal fluid bile acids may provide additional support for the diagnosis.