

## UNEXPECTED FOREIGN BODY

Joseph C. Glennon, VMD, Diplomate ACVS – Founder of Veterinary Specialties Referral Center

### Signalment and History:

Phoebe is a 3-year-old, female spayed, 130lbs/59kg, St Bernard. She has been a healthy pet, owned by a very attentive veterinarian, and she has lived in upstate NY all her life. A year ago, she ate an avocado which she vomited up the following day. There have not been any issues since. Phoebe received monthly heartworm preventative which provided her with 5mg/kg of pyrantel pamoate. For about one month she started to vomit. Her appetite, stool, and activity were all normal. Despite symptomatic treatment she continued to vomit almost on a daily basis.

All diagnostics (blood evaluation, cortisol levels, positive contrast (barium) abdominal radiographs, ultrasound imaging, fecal flotation, and Giardia ELISA) were all normal. Over the course of the month, Phoebe lost 5lbs/2.3kg.

### Diagnostics and Procedure:

Phoebe was referred to VSRC for endoscopic evaluation of her esophagus and stomach.

Her pre-anesthetic exam was completely normal and she was fasted for 12 hours prior to the procedure. Pre and post IV contrast abdominal CT imaging were normal. Endoscopy under general anesthesia was performed. Her pharynx, esophagus and gastroesophageal sphincter were all normal. Upon entering her stomach, multiple areas of focal petechia and ulceration were identified over a large portion of the fundic mucosa (image 1). Other areas of the gastric mucosa and rugal folds were normal. The pyloric antrum and pylorus were also normal. A single parasite (nematode) was identified attached to the gastric mucosa in the region of the petechial and ulceration (image 2). The parasite was removed and multiple gastric mucosa biopsies were obtained.

### Histopathology:

Histopath evaluation of the gastric mucosa identified focal ulcerated areas, which were variably covered by aggregates of fibrin and cellular debris. The lamina propria subjacent to the ulcers was expanded by hemorrhage and fibrin. There were no signs of mucosal atrophy, fibrosis, or glandular clumping. Spirochetes are not noted. There were minimally increased numbers of lymphocytes and plasma cells throughout the lamina propria and a single dense aggregate of presumed lymphocytes.

The single, white parasite was approximately 20 mm long by 2-3 mm in diameter. Morphologic features of the head reveal a distinct cephalic collar which is consistent with *Physaloptera* species.

### Diagnosis:

Phoebe was given a diagnosis of multifocal mucosal ulcers with hemorrhage, fibrin, and minimal lymphoplasmacytic gastritis with mucosal associated lymphoid tissue (MALT) hyperplasia secondary to *Physaloptera* infestation.

### Discussion:

Although infestation with *Physaloptera* occurs relatively infrequently, (stomach worms) should be included in a differential list for dogs and cats with gastritis, vomiting, and weight loss. Regurgitation has been reported infrequently. The duration of clinical signs can range from 5 days to 10 months (median, 3.5 weeks) with most dogs having signs for about one month.

Mature *Physaloptera* are small (13-48 mm) worms that attach to the gastric mucosa of the primary host where they feed and suck blood. They occasionally change their attachment site resulting in multiple small bleeding wounds that become inflamed. Transmission occurs when dogs directly ingest the intermediate host which includes cockroaches, crickets, and beetles. All dogs, especially puppies, farm, hunting and those participating in outdoor activities, are prone to infection. In Phoebe's case, investigating the vegetable garden was one of her favorite activities.

While larvated eggs are passed in the feces, they can only occasionally be identified by fecal examination. This may be due to the small number of parasites present, immaturity of the parasite, and single sex infection.

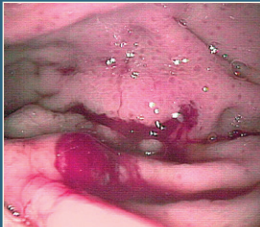
Diagnosis is often established when one or more parasites are identified by gastric endoscopy. During either gastrotomy or gastroscopy, *Physaloptera* can often be overlooked because of the low number of nematodes, often only one or two, their small size, and hidden by their location of attachment between the rugal folds.

### Outcome:

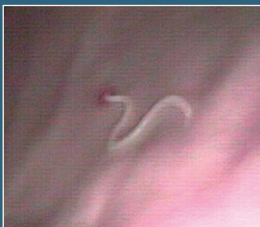
Phoebe's recovery was uneventful. She was discharged with an antacid (famotidine) and an anthelmintic (Drontal Plus: praziquantel 136mg, pyrantel pamoate 136mg, febantel 680.4mg). Immediately after the endoscopic procedure, Phoebe's episodes of vomiting completely resolved (image 3).

### Consideration:

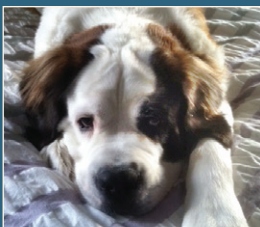
When presented with a patient who has non-specific, chronic vomiting and weight loss, empiric treatment with an anthelmintic such as pyrantel pamoate may be warranted prior to performing more extensive diagnostic procedures.



**Image 1:** Multiple areas of focal petechia and ulceration located over a large portion of the fundic mucosa.



**Image 2:** A parasite (nematode) was identified attached to the gastric mucosa in the region of the petechial and ulceration.



**Image 3:** Immediately after the endoscopic procedure, Phoebe's episodes of vomiting completely resolved.





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### IN THIS ISSUE

- Unexpected Foreign Body
- Your Surgical Partners