Grass Foreign Body

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Rusty, a 4-year-old, neutered male golden retriever weighing 66.6 lb (30.3 kg), presented with an owner complaint of “choking.” On examination, Rusty was found to be healthy. The results of the physical examination (including an oral examination, abdominal palpation, and thoracic auscultation) were unremarkable. Rusty had been eating grass, so the veterinarian noted that his coughing could have been related to pharyngeal irritation. It was recommended that the owner monitor Rusty at home and bring him to the hospital for a recheck if there were further episodes of choking.

Rusty presented again the following day. The owner reported that Rusty was still coughing and was also vomiting bile. On physical examination, Rusty was 5% dehydrated but bright, alert, and responsive. He had a temperature of 99.9°F, a heart rate of 120 bpm, a respiratory rate of 30 breaths/min, pink mucous membranes, and a capillary refill time of 3 seconds. Cranial abdominal palpation revealed splinting and a pain score of 3/10. Auscultation of the heart and lungs revealed no abnormalities.

Thoracic and abdominal radiographs were obtained. Although Rusty had not eaten in 24 hours and had been vomiting, his stomach was extremely distended and full of mottled opaque ingesta. Radiography also showed an abnormal gas pattern consisting of air-filled bowel loops in the intestines. A comprehensive blood panel was performed, and the results were within normal limits except for an elevated cholesterol level of 363 mg/dL (normal: 110 to 320 mg/dL). The hematocrit was 51.0% (normal: 37.0% to 55.0%), and the white blood cell count was 15.29 × 10³/µL (normal: 5.50 to 16.90 × 10³/µL). Based on the radiographs, the veterinarian suspected a foreign body and recommended exploratory abdominal surgery. The owner accepted the recommendation, so Rusty was prepared for surgery.

Rusty was premedicated with acepromazine (0.02 mg/kg IM) and hydromorphone (0.1 mg/kg IM) for sedation and analgesia, respectively. A 22-gauge IV catheter was placed in the right cephalic vein. A constant-rate infusion (CRI) of isotonic fluids with 60 mg/L of ketamine was then initiated at 120 mL/h before anesthesia and 300 mL/h during anesthesia. Anesthesia was induced with an IV mixture of ketamine (3.8 mg/kg) and diazepam (0.19 mg/kg). Rusty was then intubated with a 9.5-mm endotracheal tube. Isoflurane (1.5%) was used as an inhalant anesthetic.

During exploratory laparotomy, a large mass was palpated in the stomach. Gastrotomy was performed, revealing a large mass of grass and small pieces of ham in the stomach. The mass was manually broken apart and extracted (FIGURE 1). The gastric incision was closed using 3-0 antibacterial polydioxanone in a two-layer closure. The first layer was a simple continuous pattern, and the second layer was an inverting pattern to prevent leakage of the stomach contents into the abdomen. The rest of the gastrointestinal tract was palpated and visually inspected for other foreign bodies, which were not found. The other abdominal organs (i.e., liver, spleen, kidneys, pancreas) were also normal on visual inspection.

Because of the deep-chested conformation of the patient,
Prophylactic gastropexy was performed to help prevent gastric dilatation–volvulus. A right paramedian incisional gastropexy was performed using two simple continuous patterns of 3-0 polydioxanone. The abdomen was lavaged with 1.5 L of warm sterile saline. The linea alba was closed with 1 polydioxanone in a simple continuous pattern. The subcutaneous and subcuticular layers were closed with 2-0 polydioxanone in a simple continuous pattern. The skin was closed with staples. The incision was treated with a class IV therapy laser to impede bruising and swelling and facilitate healing of the incision.

Rusty was hospitalized overnight for observation. The IV fluids and ketamine CRI were continued for analgesia in addition to hydromorphone (0.1 mg/kg IV q5h). Cefazolin (23 mg/kg IV q8h) was given to prevent infection. Maropitant (1 mg/kg SC q24h) was given as an antiemetic. A bland, canned prescription diet was offered in the morning.

Two days after the initial presentation, Rusty had a good attitude but was uninterested in food. His owner was able to get him to eat a small amount of food. The hydromorphone was discontinued because it could have been causing the anorexia. Buprenorphine (0.01 mg/kg IV q6h) was administered for analgesia. The ketamine CRI, maropitant, and cefazolin were continued.

After 3 days, Rusty’s appetite was still less than normal. The incision was slightly swollen and bruised. Otherwise, Rusty was quiet, alert, and responsive. He was released to his owner with tramadol (1.6 mg/kg PO q8–12h for 7 days) for analgesia. Cephalexin (16.5 mg/kg PO q8h) was dispensed as an antibiotic. The owner was instructed to continue feeding Rusty a bland diet for a week and restrict his exercise for 2 weeks.

When the staples were removed 10 days after surgery, the owner reported that Rusty’s appetite and attitude were back to normal.