

What Is Your Diagnosis?

In cooperation with



Figure 1—Right lateral (A) and ventrodorsal (B) radiographic views of the abdomen of a 5-year-old sexually intact female Alaskan Malamute evaluated because of lethargy of 1 day's duration and a single episode of vomiting.

History

A 5-year-old sexually intact female Alaskan Malamute was evaluated at the Veterinary Teaching Hospital at Michigan State University because of lethargy of 1 day's duration and a single episode of vomiting. The dog's most recent estrous cycle had occurred 8 months prior to hospital admission. The dog was successfully bred during this cycle, and healthy puppies were delivered via cesarean section.

On physical examination, the patient was hyperthermic with a rectal temperature of 40.1°C (104.2°F) and tachycardic with a heart rate of 132 beats/min. The abdomen was tense, and a mass (diameter, approx 10 cm) was palpated in the cranial aspect of the abdomen.

Serum biochemical analysis revealed hypoalbuminemia (2.7 g/dL; reference range, 2.8 to 4.0 g/dL) and hyperglobulinemia (4.8 g/dL; reference range, 2.2 to 4.1 g/dL). Complete blood count revealed hyperproteinemia (8.4 g/dL; reference range, 6.0 to 7.4 g/dL), neutrophilia (9.94×10^3 cells/ μ L; reference range, 3.80×10^3 cells/ μ L to 7.80×10^3 cells/ μ L), and lymphocytosis (3.22×10^3 cells/ μ L; reference range, 1.10×10^3 cells/ μ L to 3.10×10^3 cells/ μ L). A urine sample was collected via cystocentesis; results of urinalysis were within reference limits. Radiographs of the abdomen were obtained (Figure 1).

Determine whether additional imaging studies are required, or make your diagnosis from Figure 1—then turn the page →

This report was submitted by Willem M. Becker, DVM; Laura L. Nelson, DVM, DACVS; Nathan C. Nelson, DVM, DACVR; and Laurent P. Guiot, DMV, DACVS; from the Department of Small Animal Clinical Sciences, College of Veterinary Medicine, Michigan State University, East Lansing, MI 48824.

Dr. Becker's present address is Department of Clinical Sciences, Cummings School of Veterinary Medicine, Tufts University, North Grafton, MA 01536. Address correspondence to Dr. Becker (willem.becker@tufts.edu).

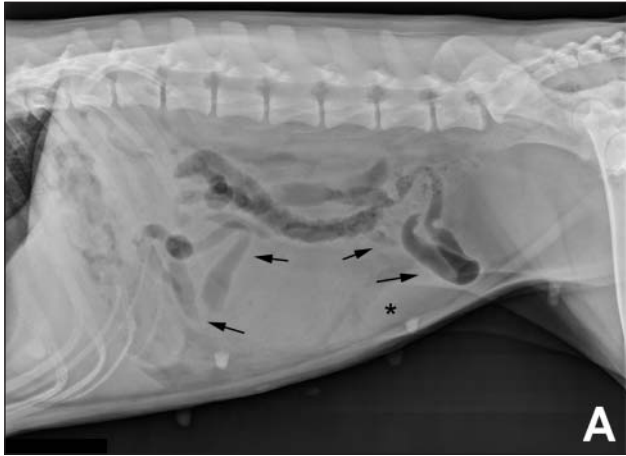
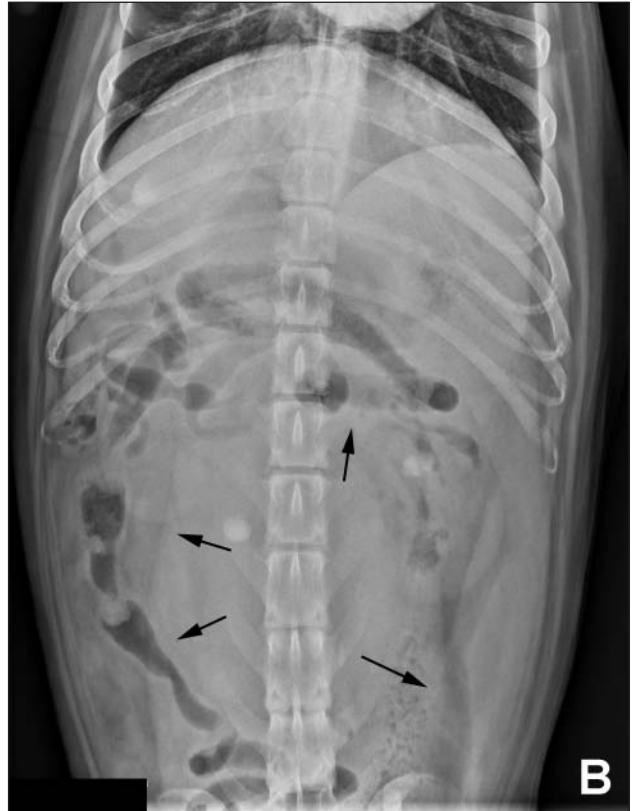


Figure 2—Same radiographic images as in Figure 1. On the lateral view (A), notice cranial and caudal displacement of the small intestines (arrows) and the caudally displaced splenic tail (asterisk). On the ventrodorsal view (B), notice lateral displacement of the small intestines (arrows).



Diagnostic Imaging Findings and Interpretation

A soft tissue opacity is evident in the ventral mid portion of the abdomen, ventral to the colon, causing cranial and caudal displacement of the small intestines on the lateral projection, and cranial to the splenic tail, causing lateral displacement of the intestines on the ventrodorsal projection (Figure 2). The margins of the mass are indistinct, and there is decreased serosal detail on both views. Based on the radiographic findings, differential diagnoses include neoplasia, granuloma, abscess, cyst, or hematoma associated with the spleen, mesentery or omentum, or a regional lymph node.

Abdominal ultrasonography was subsequently performed to better characterize the mass. A heterogenic, septated, cavitated mass associated with the right uterine horn was identified (Figure 3). A small amount of free abdominal fluid was identified. Based on ultrasonographic findings, a uterine neoplasm or abscess or an adjacent mesenteric or omental abscess or neoplasm was the most likely differential diagnosis.

Comments

An exploratory celiotomy was performed, and a 10-cm-long mass with adhesions to the right uterine horn and associated omentum was found. A minimal amount of serosanguineous peritoneal effusion was also present. In an attempt to obtain clean margins of a potential neoplasm, the greater omentum was resected en bloc with the uterus and ovaries. The mass was sectioned after removal, revealing a fibrous capsule enclosing purulent exudate and a gauze sponge. The dog recovered uneventfully and was discharged from the hospital 2 days after surgery.

Gossypiboma (or textiloma) is the medical term for a surgical sponge that is left in the body after a surgery. Gossypibomas are associated with a variety of clinical signs, including pain, intestinal obstruction, abscess, draining tracts, enterocutaneous fistulae, sepsis, neoplasia, and death, depending on their duration and the presence of bacterial contamination.^{1,2} In veterinary medicine, median time between surgery and diagnosis is 9.5 months, but intervals of years have been reported.¹

In human and veterinary medicine, imaging modalities for gossypiboma diagnosis include radiography, fistulography or sinography, ultrasonography, computed tomography, and magnetic resonance imaging.²⁻⁴ With ultrasound-guided fine-

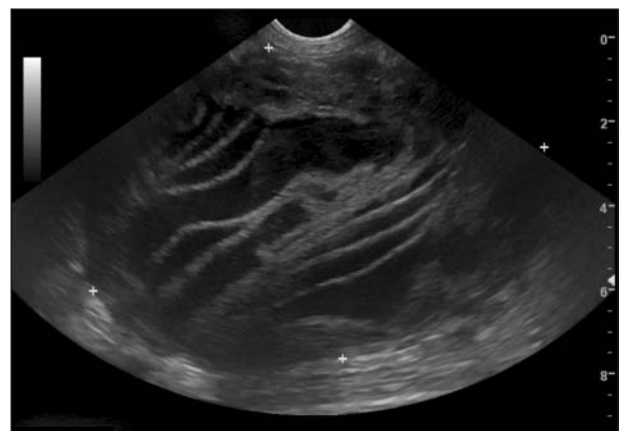


Figure 3—Transverse ultrasonographic image of the abdominal mass of the same dog as in Figure 1. The mass measures approximately 11 × 7 cm. Notice the septated and organized appearance of the mass. The white crosses are placed at the margins of the mass. Scale on right indicates length in centimeters.

needle aspiration, the foreign material may be identified on cytologic examination.⁵ Histologically, gossypibomas are characterized by foreign material encapsulated within a granulomatous capsule.²

1. Deschamps J, Roux FA. Extravesical textiloma (gossypiboma) mimicking a bladder tumor in a dog. *J Am Anim Hosp Assoc* 2009;45:89–92.
2. Frank, DS, Stanley B. Enterocutaneous fistula in a dog secondary to an intraperitoneal gauze foreign body. *J Am Anim Hosp Assoc* 2009;45:84–88.
3. Cheng TC, Chou ASB, Jeng CM, et al. Computed tomography findings of gossypiboma. *J Chin Med Assoc* 2007;70:565–569.
4. Suwatanapongched T, Boonkasem S, Sathianpitayakul E, et al. Intrathoracic gossypiboma: radiographic and CT findings. *Br J Radiol* 2005;78:851–853.
5. Putwain S, Archer J. What is your diagnosis? Intra-abdominal mass aspirated from a spayed dog with abdominal pain. *Vet Clin Pathol* 2009;38:253–256.