

What Is Your Diagnosis?

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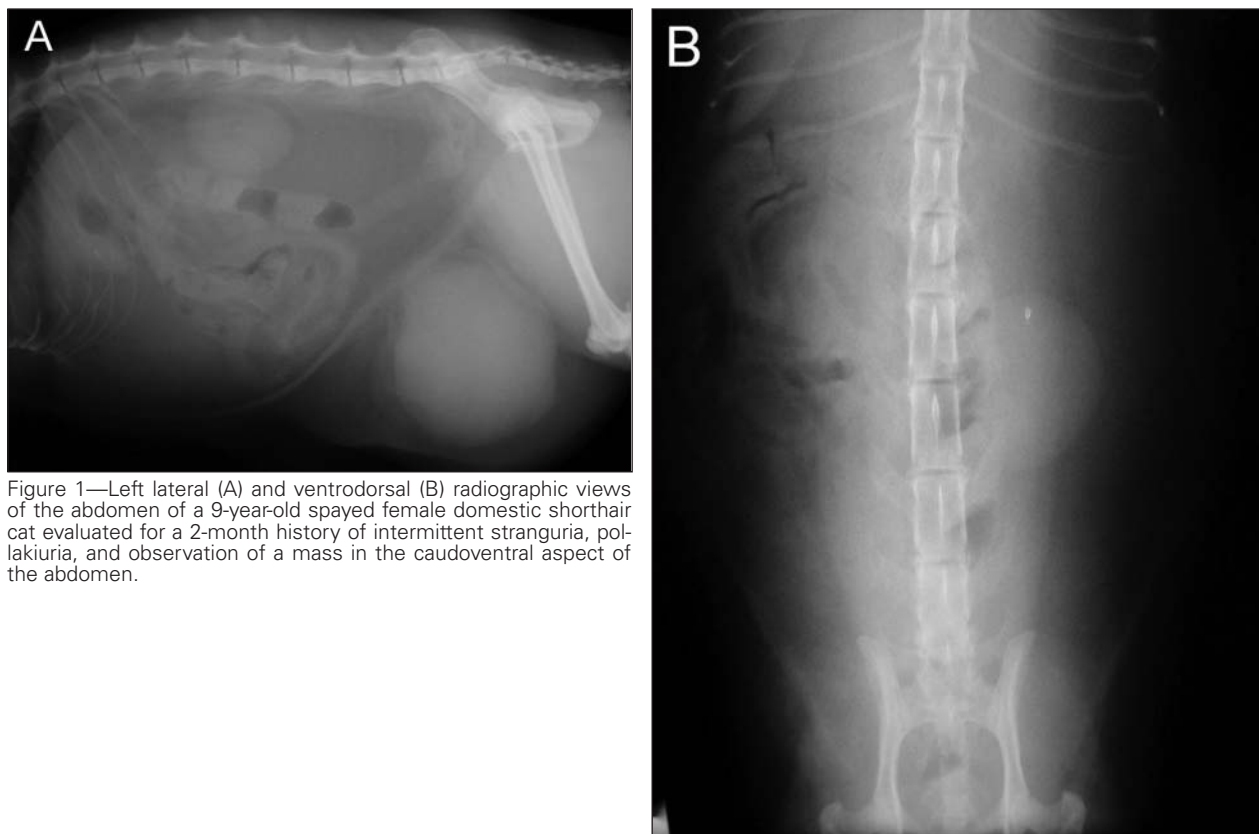


Figure 1—Left lateral (A) and ventrodorsal (B) radiographic views of the abdomen of a 9-year-old spayed female domestic shorthair cat evaluated for a 2-month history of intermittent stranguria, pollakiuria, and observation of a mass in the caudoventral aspect of the abdomen.

History

A 9-year-old spayed female domestic shorthair cat was admitted for evaluation following a 2-month history of intermittent pollakiuria, stranguria, and observation of a mass in the caudoventral aspect of the abdomen. The abdominal mass would vary in size, and when palpated by the owner, the cat would urinate. On physical examination, a large, firm mass was palpated along the ventral midline just caudal to the umbilicus. The overlying skin was mildly bruised. 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 →

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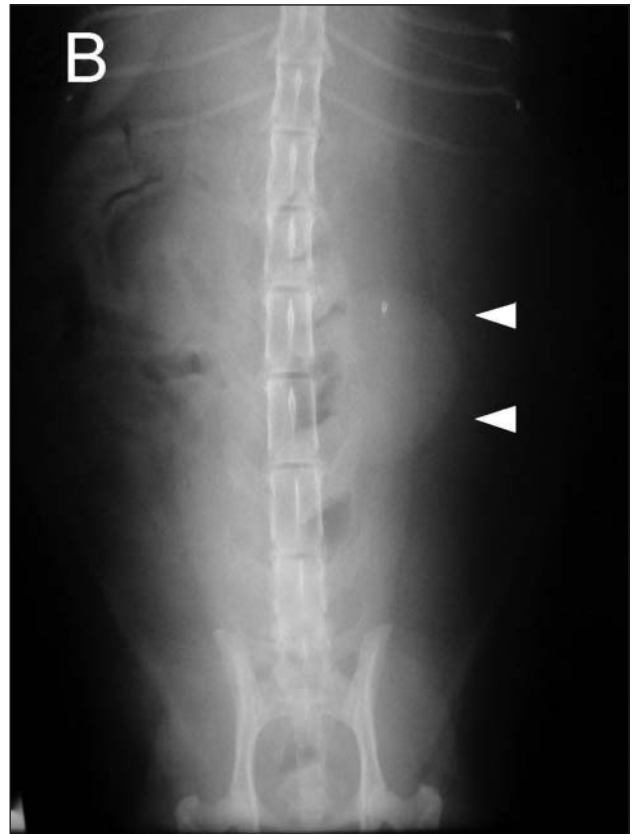


Figure 2—Same radiographic views as in Figure 1. On the lateral view, a round soft tissue mass is located external to the body wall ventrally just cranial to the hind limbs (arrow). A small amount of mottled soft tissue opacity indicative of fat surrounds the mass. On the ventrodorsal view, the mass is not visible. The left kidney appears to be normal in shape and size (arrowheads). The urinary bladder is not visualized within the abdomen, leading to the diagnosis of herniated urinary bladder.

Radiographic Findings and Interpretation

A large, round mass of soft tissue opacity is located external to the body wall in the inguinal region (Figure 2). The mass appears to be surrounded by a small amount of mottled soft tissue opacity that is indicative of fat.

Comments

A round, smoothly margined mass of soft tissue opacity external to the body wall at the caudoventral aspect of the abdomen is evident. The urinary bladder cannot be identified within the abdomen. These radiographic findings are consistent with abdominal wall hernia involving the urinary bladder.

The mass was aspirated, and 150 mL of clear yellow liquid was removed. The creatinine concentration of the liquid was 9.5 mg/dL, compared with a serum creatinine concentration of 8.8 mg/dL, indicating that the liquid was urine. Further diagnostic imaging could have been performed had the diagnosis been in question. Abdominal ultrasonography would allow for evaluation of the integrity of the bladder wall. Also, ultrasonography could have been used to trace the urethra through the body wall defect. Other potential diagnostic imaging techniques to confirm the diagnosis include a positive contrast cystogram via urethral catheterization or excretory urography.

An abdominal wall defect in the linea alba extending from the umbilicus caudally for approximately 8 cm was observed at surgery. Hernia contents included omentum and urinary bladder. The contents were replaced into the abdomen, and the defect was closed

routinely. Differential diagnoses for the cause of the abdominal wall defect included congenital umbilical hernia, traumatic abdominal hernia, and dehiscence of an abdominal incision (from ovariohysterectomy).

To the authors' knowledge, this is the first published report of herniation of the urinary bladder at this location in a cat. In 1 report,¹ the bladder of a cat was found to be herniated through a congenitally enlarged inguinal canal. Urinary bladders have also been found within a lateral abdominal wall hernia that was secondary to trauma as well as within perineal hernias.²⁻⁴

The cause of the hernia of the cat of this report was undetermined. Because of the location and lack of history of trauma, the authors suspect that the hernia was the result of incisional dehiscence following ovariohysterectomy that remained undetected for many years.

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3. Hauptman J, Hurd B. Herniation of the urinary bladder and diaphragmatic hernia in a cat. *J Am Vet Med Assoc* 1978;172:164–165.
4. Risselada M, Kramer M, Van de Velde B, et al. Retroflexion of the urinary bladder associated with a perineal hernia in a female cat. *J Small Anim Pract* 2003;44:508–510.