What Is Your Diagnosis?

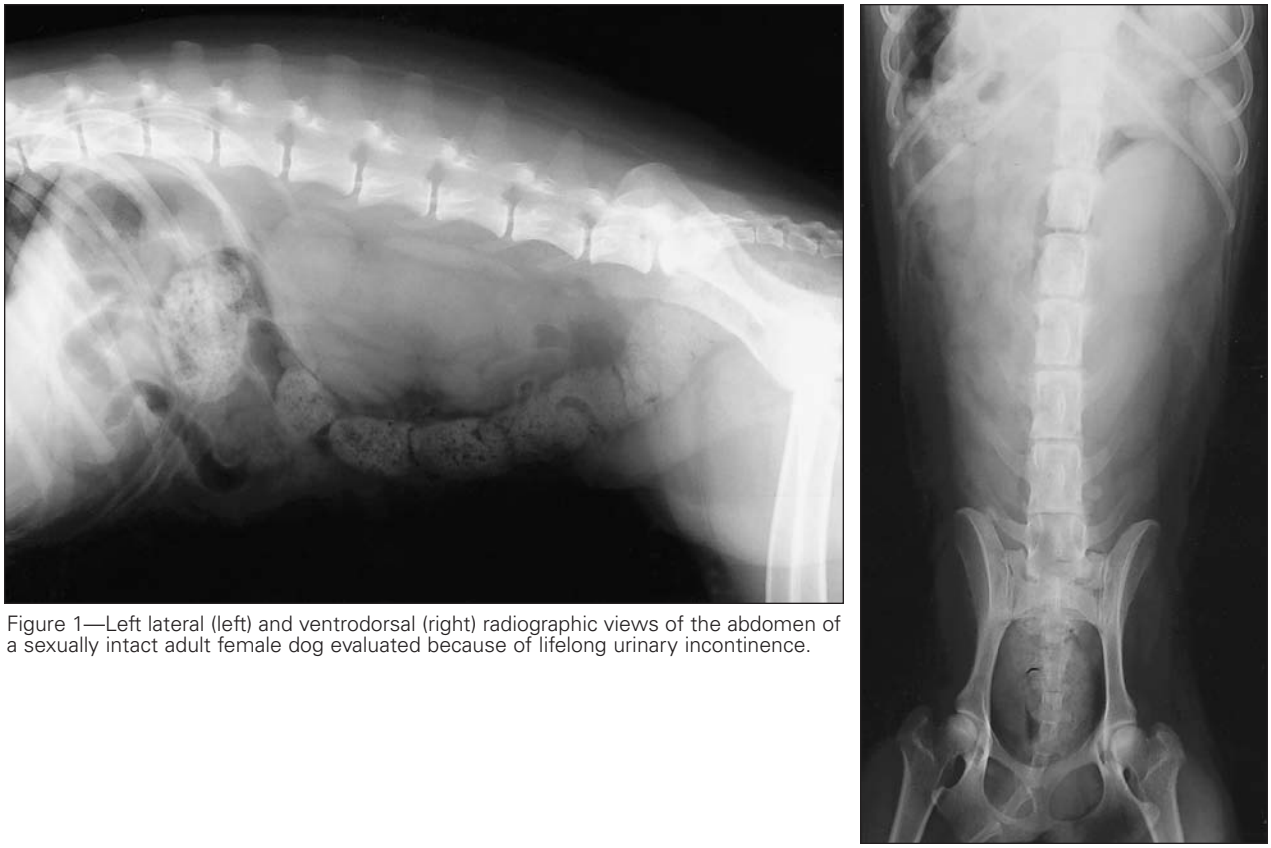

Figure 1—Left lateral (left) and ventrodorsal (right) radiographic views of the abdomen of a sexually intact adult female dog evaluated because of lifelong urinary incontinence.

History

An adult sexually intact female Siberian Husky was evaluated because of lifelong urinary incontinence. The dog had 3 previous owners, all of whom returned the dog to the rescue league from which it was obtained because of the urinary tract disorder. No diagnostic procedures had been performed or treatments administered specifically for this problem.

Abnormalities detected on physical examination included a juvenile vulvar conformation, a circumferential vestibulovaginal stricture, and a nonreducible umbilical hernia. Signs of pain were elicited on palpation of the left kidney, lumbar vertebral column, and urinary bladder. A tortuous tubular fluid-distended structure was also palpated dorsal to the descending colon. The dog was dribbling urine constantly during evaluation, and the perineal area was urine stained and erythematous. Abdominal radiographs were obtained (**Fig 1**).

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

This report was submitted by Brett C. Wood, DVM; John H. Rossmeisl Jr, DVM; and Jacob J. Rohleder, DVM; from the Department of Small Animal Clinical Sciences, Virginia-Maryland Regional College of Veterinary Medicine, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061.

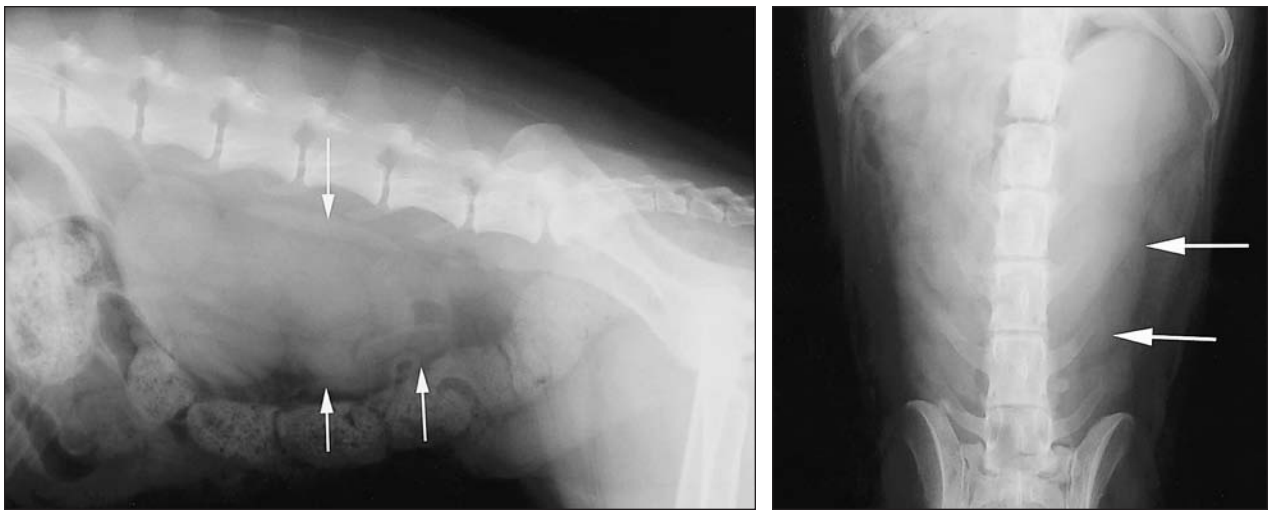

Figure 2—Same radiographic views as in Figure 1. Notice the tortuous soft-tissue opacity in the left caudal region of the abdomen (arrows). The right kidney is not apparent.

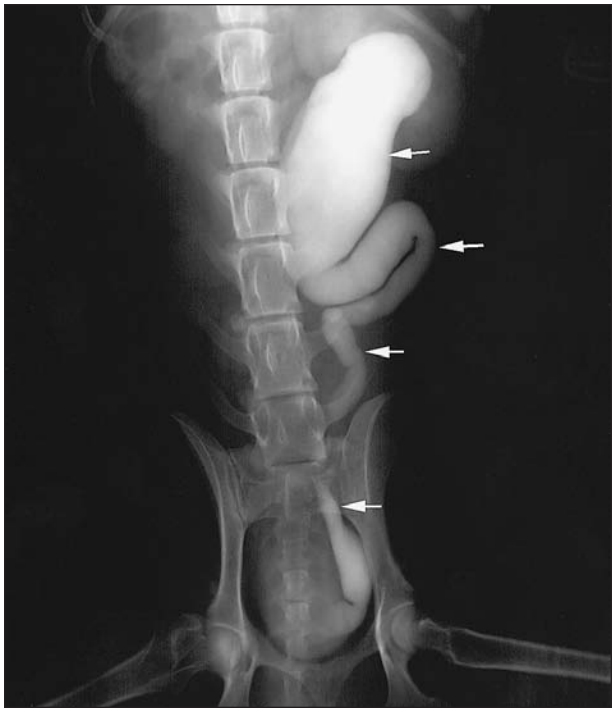

Figure 3—Ventrodorsal excretory urogram of the dog described in Figure 1. Notice the severely dilated left ureter (arrows).

Diagnosis

Radiographic diagnosis—Pronounced ventral deviation of the colon by an irregular soft-tissue opacity in the retroperitoneal area (**Fig 2**).

Comments

A tubular soft-tissue opacity was evident in the left retroperitoneal region, and the right kidney was not apparent. Differential diagnoses include abnormalities of the ureter, uterus, intestines, or kidney. Given the location and irregular nature of the opacity, we suspected it resulted from a ureteral abnormality.

The radiographic findings and history were consistent with a diagnosis of ectopic ureter. Abnormalities detected during abdominal ultrasonography included left hydronephrosis and severe hydroureter. The right kidney was not apparent. Excretory urography revealed left pyelectasis, hydroureter, and ureteral ectopia (**Fig 3**). The ectopic ureter appeared to drain into the urinary bladder at abnormal locations in the trigone and vestibule. Results of CBC revealed a mild, normocytic, normochromic, nonregenerative anemia. Urinalysis revealed a urine specific gravity of 1.020, pH of 7.0, pyuria, and bacteriuria. *Staphylococcus intermedius* was cultured from urine obtained via cystocentesis and percutaneous pyelocentesis. The final diagnosis was left hydroureter, ureteral ectopia, hydronephrosis, and pyelonephritis. The dog was treated with cephalexin (23.8 mg/kg [10.8 mg/lb] of body weight, q 8 h, PO).

Urinary incontinence is the most frequent clinical sign in dogs with ectopic ureter.[1] Excretory urography can provide critical information regarding the location, size, and shape of the ureters and can be used to evaluate the entire urinary tract.[1] Surgical correction of ureteral ectopia is the treatment of choice.[2] Continued incontinence is the most frequent postoperative complication,[1,3] and Siberian Huskies have a significantly higher rate of persistent incontinence, compared with other dogs.[3] The dog of this report had lifelong incontinence, suggesting that the abnormalities were congenital. Because the function of the right kidney was questionable, and because of the severity of hydronephrosis and hydroureter, the prognosis was guarded for resolution of clinical signs if surgical treatment was attempted. The owners declined further diagnostic evaluation or surgical intervention, and the dog is currently being managed with continuous low-dose antimicrobial therapy.

1. McLoughlin MA, Chew DJ. Diagnosis and surgical management of ectopic ureters. *Clin Tech Small Anim Pract* 2000;15:17–24.

2. Waldron DR. Urinary bladder. In: Slatter D, ed. *Textbook of small animal surgery*. 2nd ed. Philadelphia: WB Saunders Co, 1993;1450–1461.

3. McLaughlin R, Miller CW. Urinary incontinence after surgical repair of ureteral ectopia in dogs. *Vet Surg* 1991;20:100–104.