Tenesmus and Obstipation in a Cat

Kelly R. Might, DVM
Clare R. Gregory, DVM, DACVS
PetCare Veterinary Hospital
Santa Rosa, California

A 7-year-old, 3.2-kg, spayed Siamese-mix cat was referred for evaluation of a 1-week history of tenesmus and obstipation. The cat had undergone ovariohysterectomy 4 weeks before presentation. The referring veterinarian administered two 30-mL warm water enemas and one enema consisting of 5 mL of dioctyl sodium sulfosuccinate and 30 mL of warm water and started oral lactulose at a dose of 2 mL q8h for 3 days, but passage of feces was not achieved. After 3 days with no resolution of clinical signs, the patient began to vomit episodically. The referring veterinarian sedated the patient for further examination. The cat was premedicated with 0.01 mg/kg of buprenorphine and 0.03 mg/kg of acepromazine administered subcutaneously, accompanied by inhalation of isoflurane and oxygen through an anesthetic mask to achieve deeper sedation. The patient was then intubated and maintained on isoflurane inhalant anesthesia and oxygen. On rectal palpation, a stricture was suspected approximately 7 cm cranial to the anus. The patient was recovered and transferred to our hospital. Physical examination revealed depression, likely attributable to the anesthetic event before admission. Abdominal palpation revealed a large amount of hard feces throughout the colon. A complete blood count showed mild lymphopenia (1370 cells/µL; reference range, 1500 to 7000 cells/µL); a serum biochemical profile was normal. The referring veterinarian submitted two abdominal radiographs (FIGURES A and B).

1. Based on the cat’s history, physical examination findings, and radiographs, what is the differential diagnosis?

2. What further diagnostics could have been performed to determine whether the cause of obstipation was intraluminal or extraluminal?

3. What is the difference between constipation and obstipation?

4. What are common causes of constipation and obstipation?
Answers and Explanations

1. The radiographs show the colon to contain a moderate amount of feces and air, with dilation of the descending colon caudal to L5-L6 and moderate constriction distal to L6-L7 (FIGURES C and D). The bladder is moderately distended and, on the lateral view, the cranial aspect of the bladder is compressed by feces in the overlying colon. The differential diagnosis included rectal stricture due to inflammatory or traumatic causes, extraluminal entrapment, and neoplasia. In general, the diameter of the colon should be no greater than the length of the seventh lumbar vertebra (L7).¹ The radiographs helped to rule out diffuse megacolon and pelvic canal stenosis and to confirm rectal stricture and identify its location. Based on these radiographs, an extraluminal cause for stricture was suspected.

2. Abdominal ultrasonography would be useful in looking for extraluminal mass lesions, including lymphadenopathy and neoplasia; ultrasound-guided aspiration could be used to obtain cytology or biopsy samples. A diagnostic pneumocolonogram or barium enema could be performed to rule out an intraluminal mass. Colonoscopy could also be used to identify intraluminal disease, strictures, or diverticula.²

3. Constipation is defined as infrequent or difficult evacuation of feces. Obstipation is intractable or refractory constipation that does not respond to several courses of medical and dietary treatment. Obstipation implies a permanent loss of function. When obstipation results in dilatation or hypertrophy of the colon, the condition is described as megacolon.

4. Constipation may be due to primary intestinal, extraintestinal, and anorectal disorders but inevitably has a component of dehydration and cellular water deficit. Causes may be related to diet, behavior, or foreign body ingestion or conditions such as megacolon, metabolic disorders (e.g., hypothyroidism, hypercalcemia, hypokalemia), perianal fistulas, perineal hernias, pelvic fractures, intraluminal or extraluminal strictures, neoplasia, or any cause of unrelenting or progressive dehydration.³ Rectal strictures can be due to benign annular fibrotic bands or neoplastic ingrowth and, if left untreated, may lead to megacolon.³ A review of published cases⁴ found that 62% of obstipation cases in cats were due to idiopathic megacolon, 23% were due to pelvic canal stenosis, 6% were due to nerve injury, and 5% were due to Manx sacral spinal cord deformity. The author of this review suggests that some idiopathic cases may involve generalized dysfunction of colonic smooth muscle.⁵

---

* * *
In this case, administration of additional enemas was unsuccessful in resolving the obstipation. The patient was sedated, and rectal examination confirmed a stricture. Abdominal exploratory surgery found a broad ligament/uterine body scar trapping the colon against the ventral aspect of the spine, decreasing the intraluminal diameter of the colon. The ureters were also involved in the scar, but ureteral obstruction was not noted, and the patient had no history of urinary dysfunction. The scar was transected and the colon freed. Forty-eight hours after surgery and a saline enema, the patient began defecating soft stool. At recheck, 12 days postoperatively, the owners stated that the cat had been eating and passing stool normally. I (C. R. G.) have seen this complication only twice in my career. In my experience, there is no change in ovariohysterectomy procedure that could be performed to prevent this complication from occurring.

References