

MEGACOLON

Associated Terms:

Idiopathic Megacolon, Subtotal Colectomy, Colectomy, Feline Megacolon

Box 18.55

Megacolon: Key Points

- Most common in cats
- Usually idiopathic; other causes include pelvic obstruction, neurologic, endocrine, behavioral, or congenital
- Diameter of the colon is >1.5 times the length of L7
- Medical management is recommended initially
- Subtotal colectomy is recommended when medical management becomes unsatisfactory
- Cats often handle subtotal colectomy well; dogs tend to not handle subtotal colectomy well
- Postoperatively: frequency of defecation increases, diarrhea improves to soft stool in 4–6 weeks
- Constipation may recur but can usually be managed medically

OVERVIEW

Megacolon is a term used to describe a very dilated, flaccid, incompetent colon. This usually occurs, secondary to chronic constipation & retention of feces, but may be a congenital dysfunction. Megacolon itself is not a specific disease entity, but it will usually result in obstipation (inability to defecate), since feces is retained in the colon in a larger diameter than is able to pass through the pelvis. The etiology is poorly understood but it is thought to be due to a neuromuscular problem in the colon that impairs motility. Histopathology of excised colons from affected cats usually does not show significant lesions. The feces also become very dry & hard, as the colon absorbs water.

Surgery may be required to treat this condition once medical management has been exhausted.

Megacolon is secondary to colonic inertia (functional obstruction) or outlet obstruction (mechanical obstruction). In each category, there are a number of specific causes. The most common cause of colonic inertia is idiopathic (meaning unknown cause) megacolon. Idiopathic megacolon is a disease in cats where the colon loses its normal motility & becomes progressively larger. As the disease progresses, cats lose the ability to defecate. The most common cause for outlet obstruction is obstruction due to poorly healed pelvic fractures, which impinge on the outflow tract of the pelvis & prevent the normal passage of feces. Tumors, strictures & hernias of the rectum/anus can also contribute to the development of megacolon or constipation.

CLINICAL SIGNS & SYMPTOMS

Cats affected with idiopathic megacolon are usually between 5–9 years old. Diagnosing the condition usually happens long after constipation has been present, especially in a multiple cat household or when cats are indoor/outdoor. In these cases, owners may not be aware of their cat's normal bowel habits.

Cats affected by megacolon may show the following signs:

- abdominal discomfort
- decreased appetite
- lethargy
- tenesmus (straining to defecate)

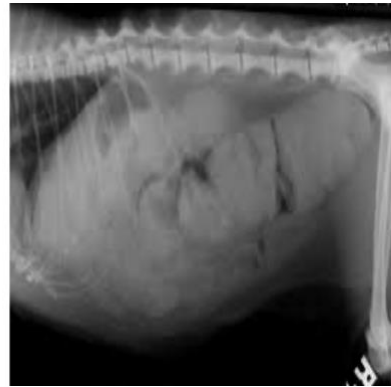
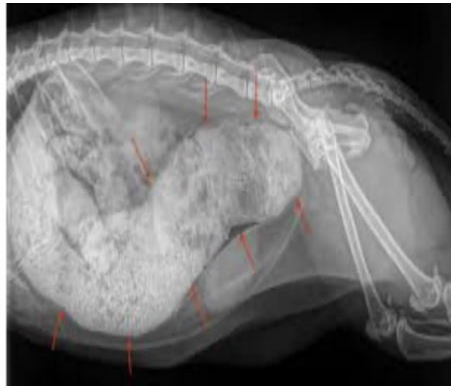
The stool present in the colon is large & firm & is easily palpable (a veterinarian can feel it easily). It is important that your veterinarian perform a rectal exam to check for old collapsed pelvic fractures, obstructive masses or hernias located either inside or outside of the colon or rectum.



FIG. 18.135 Radiograph of a dog with megacolon that occurred as a result of malunion of pelvic fractures and narrowing of the pelvic canal.

DIAGNOSTICS

Diagnosis of megacolon is based on history & physical exam & is confirmed with radiographs (x-rays) of the abdomen. The diagnostic work-up should also include blood work to rule out any metabolic abnormalities. Radiographs can confirm the presence of a large colon & can be used to determine if there are any old pelvic fractures, masses or spinal deformities. Abdominal ultrasound, contrast studies of the lower gastrointestinal tract or colonoscopy may also be needed to determine cause of the condition. The final diagnosis of idiopathic megacolon is made by excluding all other causes of constipation.



TREATMENT

Medical Treatment

For idiopathic megacolon, initial management is medical. These cats should be appropriately hydrated (IV fluids if dehydrated), then an enema & deobstipation (manual removal of feces) should be performed. This almost always requires general anesthesia, as it is extremely painful for an awake cat. **NEVER** attempt to give a cat an enema at home unless instructed by your veterinarian & **NEVER** use an over-the-counter Fleet phosphate enema (infant enema), which is toxic to cats.

After the stool has been removed, medical management begins. In the past, a high fiber diet & bulking agents such as Metamucil & fiber pills were recommended in an effort to make the cat more “regular.” These are actually contraindicated & can worsen the signs.

The best medical management includes a low-residue diet (your veterinarian can suggest low-residue prescription diets) & prescription medications such as lactulose & cisapride.

Lactulose is a mild cathartic (helps speed defecation) & is a stool softener.

Cisapride stimulates colonic motility (propulsion).

The low residue diet helps to stimulate the colonic cells without increase in bulk. Most cats will initially respond to this therapy, but some will eventually become refractory to treatment. When medical therapy is no longer effective, surgery to remove the enlarged colon is recommended.

Box 18.56

Drugs Used for Constipation in Dogs and Cats

Lactulose (Chronulac)

Dogs: Start at 1 mL/4.5 kg PO q8–24h: adjust the dose so that the stools are soft but not watery
Cats: Start at 5 mL/cat PO q8h, adjust the dose so that the stools are soft but not watery

PO, Orally.

TREATMENT

Surgical Treatment

The surgery is referred to as a “**subtotal colectomy**” (removal of most, but not all, of the colon), although occasionally a **total colectomy (removal of the entire colon)** is required. Before surgery, your pet may be started on antibiotics, because the colon, containing feces, is the most bacteria-laden part of the intestinal tract.

Antibiotics help to prevent bacterial infection at surgery.

In subtotal colectomy, the entire affected colon is resected (cut out) & the two remaining ends are sutured back together. Failure to remove an affected portion of bowel can cause formation of a new dilated area of bowel, leading to recurrence of clinical signs of constipation & obstipation. Sub-total colectomy is a challenging surgical procedure.

Cats with pelvic obstruction secondary to pelvic trauma can be treated by removal of the abnormal pelvic bones (pelvic ostectomy) to allow normal passage of feces again.

Unfortunately, **if the megacolon has been present for greater than 4 to 6 months, dilation & loss of function may be irreversible.** The colon is not able to return to normal function after this extended period of time. Therefore, most cats with impinging pelvic fractures are also treated with the same surgery (subtotal colectomy).



Fig. 4: Intraoperative appearance of megacolon in a cat. Ileum is to the left, rectum to the right.

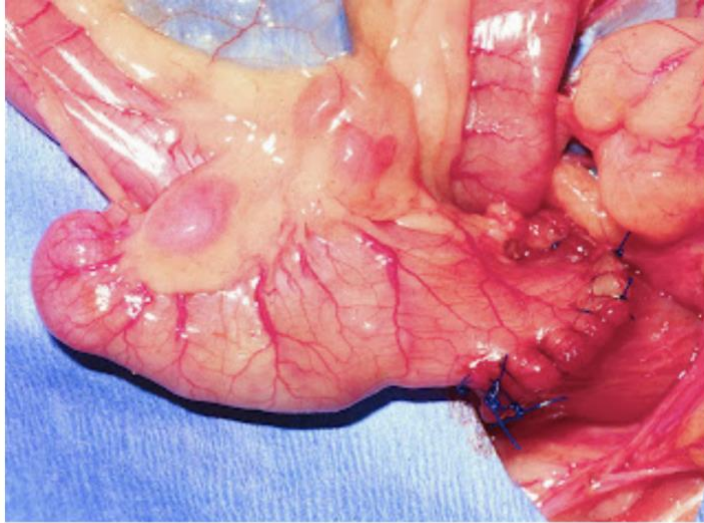


Fig. 5: Completed ileal-colic anastomosis after subtotal colectomy

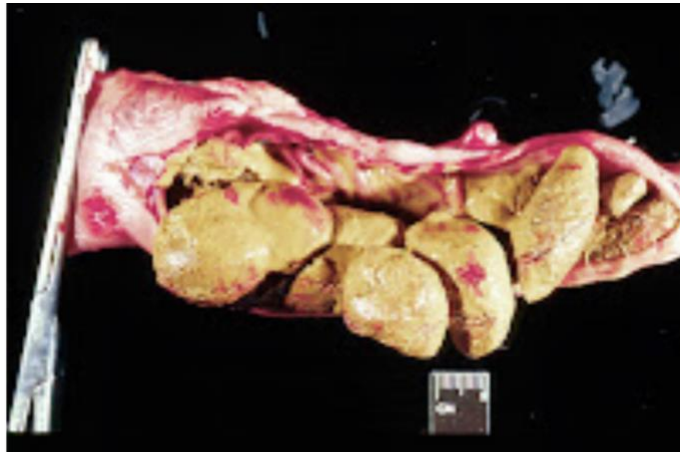


Fig. 1: Excised colon from a cat with megacolon

AFTERCARE & PROGNOSIS (outcome)

Water should always be available to maintain good hydration status.

Soft stools & occasionally diarrhea can occur for the first few months after surgery.

Progressively, the stools become more formed, but rarely ever become normal. Cats are not incontinent following subtotal colectomy but may occasionally drop a small piece of soft stool on the way in or out of the litter box as they are adjusting to their new life post-constipation. Postoperative constipation has been reported but is rare & is usually treated successfully with medical management. Rarely, cats require a second surgery if not enough colon was removed the first time. The vast majority of cats have GOOD to Excellent quality of life & do not need special diets or medication. Dogs do not do as well with subtotal colectomy as cats; however, dogs with hypertrophic megacolon may respond to subtotal colectomy with preservation of the ileocecolic junction.

Food may be offered within 24 hours of surgery, although anorexia may persist for 5 days or longer. Mirtazapine (appetite stimulus) may be used to stimulate eating in some cats. It may be necessary to keep animals on a low-volume, high-caloric diet for 10 to 14 days. Liquid, tarry feces & tenesmus should be expected immediately after surgery. The character of the feces changes gradually from diarrhea to soft, formed stool in 80% of cats by 6 weeks after surgery. Semi-formed stools &, in rare cases, diarrhea persist in some cats. The frequency of defecation usually increases 30% to 50% compared with normal cats; however, most cats are continent. The litter pan should be kept clean to encourage defecation.

Complications

Postoperatively, antibiotics are often continued, & cats are closely monitored for infection. Patients should be monitored frequently for signs of anastomotic leakage or signs of peritonitis. Leakage, dehiscence, peritonitis, ischemic necrosis, stricture & abscess formation are possible.

In some cases, diarrhea persists & in other cases constipation recurs. Persistent diarrhea may be the result of antibiotic-responsive diarrhea therapy or hypersecretion in the small intestine. Treatment for persistent diarrhea includes antidiarrheal agents, a low-fat diet & oral antibiotic. Constipation after subtotal colectomy is often controlled by dietary management & stool softeners & occasionally by manual extraction. Cats with resistant postoperative constipation may benefit from repeat colectomy, but others are euthanized.

NOICTA: 3 days of slow-release bupivacaine injection perform during surgery to reduce local surgical pain.

Pain signs include anxiety & vocalization &/or biting or licking at the surgical site.

An adhesive bandaid & topical antibiotic ointment was applied to the surgical site to help prevent incision infection. Allow the bandaid to fall off naturally in about 5-7 days unless it has an odor, dirty or soil/wet then it must be removed by your vet.

E-collar should always be on for a minimal of 14 days until the skin incision is completely healed. Only acceptable time when the e-collar may come off is during adult supervision while your pet is eating/drinking or during potty breaks on leash.

Activity restriction is recommended for minimal of 14 days.

Absolutely no running, jumping, jogging, playing (rough housing) with other pets/people or using the stairs.

Increase activity may increase the chances of post-operative incision complications such as seroma (fluid filled pocket at the incision site), increase incisional inflammation, wound (dehiscence) incision wound opening, delayed incision site healing, suture reaction, abdomen peritonitis (abdomen cavity infection) &/or incision infection.

Closely monitoring & nursing care is the utmost importance to provide your pet with the best chance of a successful recovery.

Medications will be discussed with your primary veterinarian & staff.

Familiar yourself with & understand what the medications are, how to give, how frequent to give & the potential side effects.

Medications may include antibiotic, anti-inflammatory/NSAID, analgesia (pain relief) & sedation.

Be aware, small percentage of surgery may require 24 hours veterinary aftercare especially for high-risk breeds & surgical procedure.

If 24-hour veterinary aftercare is NOT possible then make sure to know what signs to look for while your pet is in your care at home (outpatient) that you have map out the nearest location of a 24-hour veterinary hospital.

If you have any questions, please feel free to ask your primary veterinarian &/or veterinary surgeon.

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