MEGACOLON

BASICS

OVERVIEW

- "Mega-" refers to large or oversized; "colon" is another term for the large intestine
- "Megacolon" is a condition of persistent, increased large-intestine diameter associated with long-term (chronic) constipation/obstipation and low-to-absent movement of the large intestines (known as "colonic motility")
- "Constipation" is infrequent, incomplete, or difficult defecation with passage of hard or dry bowel movement (feces)
- "Obstipation" is constipation that is difficult to manage or does not respond to medical treatment, caused by prolonged retention of hard, dry bowel movement (feces); defecation is impossible in the patient with obstipation

SIGNALMENT/DESCRIPTION of ANIMAL

Species

- Dogs and cats
- Dogs and cats—acquired (condition that develops sometime later in life/after birth) megacolon
- Cats—enlarged large intestine of unknown cause (so called "idiopathic megacolon")

Breed Predilections

- Some evidence for increased risk in Manx cats

Mean Age and Range

- Acquired (condition that develops sometime later in life/after birth) megacolon—none
- Idiopathic megacolon (enlarged large intestine of unknown cause)—middle-aged to old cats (mean age, 4.9 years; range, 1 to 15 years)

SIGNS/OBSERVED CHANGES in the ANIMAL

- Acquired (condition that develops sometime later in life/after birth) megacolon—signs may be sudden (acute) or long-term (chronic)
- Idiopathic megacolon (enlarged large intestine of unknown cause)—typically a long-term (chronic) or recurrent problem; signs often present for months to years
- Constipation/obstipation (constipation that is difficult to manage or does not respond to medical treatment)
- Painful defecation or straining to defecate (known as "tenesmus") with small or no fecal volume
- Hard, dry feces
- Infrequent defecation
- Small amount of diarrhea (often with mucus) may occur after prolonged painful defecation or straining to defecate (tenesmus)
- Occasional vomiting, lack of appetite (known as "anorexia"), and/or depression
- Weight loss
- Enlarged colon with hard bowel movement (feces) may be detected on physical examination
- Rectal examination may indicate an underlying (obstructive) cause and confirms the presence of hardened bowel movement in the large intestine (colon) or rectum (condition known as "fecal impaction")
- Dehydration
- Scruffy, unkempt hair coat

CAUSES

- Idiopathic megacolon (enlarged large intestine of unknown cause)—cats
- Mechanical blockage or obstruction of the passage of bowel movement (feces)—pelvic fracture; foreign body or improper diet (especially bones); abnormal narrowing of the colon or rectum (known as a "stricture"); condition in which bowel movement (feces) becomes trapped and matted in the hair around the anus, blocking the anus (known as "pseudocoprostasis"); prostate disease; condition in which the muscles supporting the rectum weaken and separate, allowing the rectum and/or bladder to slide under the skin and causing swelling in the area of the anus (known as a "perineal hernia"); cancer; birth defect in which the anus or rectum does not have an opening (known as "anal atresia" or "rectal atresia," respectively)
- Causes of difficulty defecating (dyschezia)—disease of the anus and/or rectum (such as inflammation of the anal sacs [known as "anal sacculitis"]; anal sac abscess; one or multiple draining tracts around the anus (known as "perianal fistulae"); inflammation of the lining of the rectum [known as "proctitis"]); trauma (fractured pelvis, fractured limb, dislocated hip, bite wound or laceration in the tissue around the anus, perineal [area between the anus and external genitalia] abscess)
- Metabolic disorders—low levels of potassium in the blood (known as "hypokalemia"), severe dehydration
- Various medications—examples include vincristine, barium, antacids, sucralfate, anticholinergics (used as preanesthetics or to treat diarrhea, such as atropine)
- Nervous system and/or muscular disease—congenital (present at birth) abnormalities of the spine (especially Manx cats); paralysis of the rear legs (known as "paraplegia"); spinal cord disease; intervertebral disk disease; abnormal function of the autonomic nervous system (known as "dysautonomia"); sacral nerve disease; sacral nerve trauma (such as a tail fracture/pull injury); trauma to nerves to the large intestine

RISK FACTORS

- Pain involving the rectum and/or anus and conditions (such as pelvic and limb fractures or diseases of the nerves and/or muscles) leading to inability to posture to defecate
- Prior pelvic fractures
- Possible association with low physical activity and obesity
- Perineal hernias; a "perineal hernia" develops when the muscles supporting the rectum weaken and separate, allowing the rectum and/or bladder to slide under the skin and causing swelling in the area of the anus

TREATMENT

HEALTH CARE

- Inpatient medical management; surgery may be indicated, if recurrent or severe problem
- Medical treatment—restore normal hydration, followed by anesthesia and manual evacuation of the colon using warm water enemas, water-soluble jelly, and gentle extraction of feces with a gloved finger or sponge forceps
- Continue long-term therapy at home
- Most patients require fluids to correct dehydration
- Continue fluid support until the patient is willing to eat and drink

ACTIVITY

- Encourage activity and exercise
- Restricted activity indicated in the postoperative period, if surgery is performed

DIET

- Many patients require a low-residue-producing diet; bulk-forming fiber diets can worsen or lead to recurrence
- A high-fiber diet is occasionally helpful
- A maintenance-type diet can be supplemented with products such as Metamucil® or pumpkin-pie filler

SURGERY

- An underlying blockage or obstructive cause requires surgical correction
- Avoid enema administration/colonic evacuation prior to surgical procedure to remove part of the colon (known as a "subtotal colectomy")
- Surgical removal of a section of the colon, with connection of the ends of the remaining sections of the intestines (known as "ileorectal or colorectal resection and anastomosis")—treatment of choice for idiopathic megacolon (enlarged large intestine of unknown cause) that does not respond to medical management
- Surgical removal of the colon (known as a "colectomy") may be required with obstructive megacolon caused by irreversible changes in movement of the large intestines (colonic motility)

MEDICATIONS

Medications presented in this section are intended to provide general information about possible treatment. The treatment for a particular condition may evolve as medical advances are made; therefore, the medications should not be considered as all inclusive.

- Can improve large intestinal movement (colonic motility) in less severe cases with cisapride, a gastrointestinal prokinetic drug; "gastrointestinal prokinetic drugs" are medications that improve the propulsion of contents through the stomach and intestines
- Stool softeners (such as lactulose) are recommended in conjunction with cisapride and diet
- Broad-spectrum antibiotics are recommended prior to emptying the colon and rectum of dry, hard bowel movement (feces) and during the time immediately surrounding surgery, if surgery is elected
- Docusate sodium can be used as a stool softener in place of lactulose

FOLLOW-UP CARE

PATIENT MONITORING

- Following surgical removal of part of the large intestine (colon) with connection of the ends of the remaining sections of the intestines (known as "colonic resection and anastomosis")—for 3 to 5 days check for signs of splitting open or bursting along the incision line (known as "dehiscence") and inflammation of the lining to the abdomen (known as "peritonitis")
- Clinical deterioration warrants tapping the abdomen (known as "abdominocentesis") and/or flushing the abdomen (known as "peritoneal lavage") to detect leakage of intestinal contents through the incision site

PREVENTIONS AND AVOIDANCE

- Repair pelvic fractures that narrow the pelvic canal
- Avoid exposure to foreign bodies and feeding bones

POSSIBLE COMPLICATIONS

- Recurrence or persistence—most common
- Potential surgical complications include inflammation of the lining of the abdomen (peritonitis), persistent diarrhea, abnormal narrowing of the large intestine (stricture formation), and recurrence of obstipation (constipation that is difficult to manage or does not respond to medical treatment)
- Abnormal opening or hole in the large intestines (known as a "perforation")

EXPECTED COURSE AND PROGNOSIS

- Historically, medical management has been unrewarding
- Cisapride appears to improve the prognosis with medical management in some patients, but may not suffice in severe or long-standing cases
- Postoperative diarrhea—expected; typically resolves within 6 weeks (80% of cats with idiopathic megacolon [enlarged large intestine of unknown cause] undergoing surgical removal of part of the colon [subtotal colectomy]), but can persist for several months
- Surgical removal of part of the colon (subtotal colectomy) is well tolerated by cats; constipation recurrence rates are typically low

KEY POINTS

- In idiopathic megacolon (enlarged large intestine of unknown cause) or with severe colonic injury, medical treatment often is lifelong and can be frustrating
- Recurrence is common
- Surgical removal of part of the colon (subtotal colectomy) is indicated, if medical treatment fails