Cecal Volvulus

Patient and family information, brought to you by the Education Committee of APSA

Overview - "What is it?"

The cecum is the first section of the large intestine or colon and is located in the right lower region of the belly.

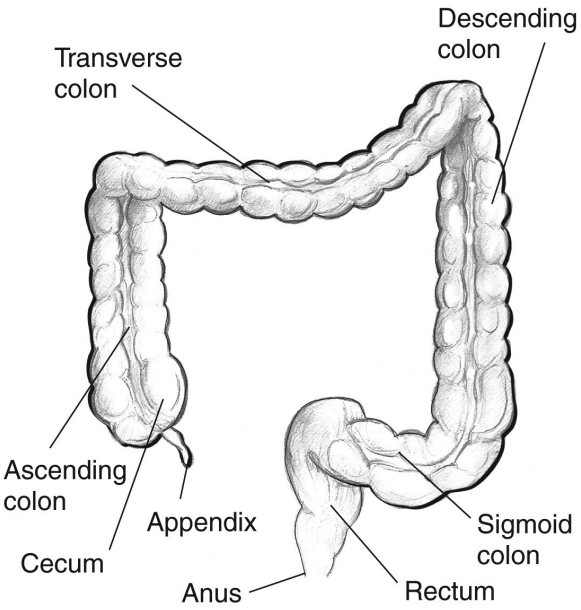

Figure 1: Large Intestine

Photo courtesy of National Institute of Diabetes and Digestive and Kidney Diseases

Cecal volvulus is when the cecum twists upon itself. When this happens, the flow of food through the intestine is blocked and blood supply to the cecum is kinked. The cecum is a segment of intestine that is normally attached to the lower right side of the belly. Normally these attachments prevent the cecum from twisting on itself. However, there are some conditions where the cecum is at increased risk for twisting on itself. These include the lack of normal attachments that can allow the cecum to move around more than it should, or several

underlying medical conditions such as: neurologic impairment, Hirschsprung Disease, intestinal dysmotility or chronic constipation.

Signs and Symptoms - "What symptoms will my child have?"

The signs and symptoms of cecal volvulus are the result of intestinal blockage and a lack of blood flow to the cecum. Symptoms include belly pain and swelling with vomiting that may be green. As the symptoms progress, the child may feel lethargic, sleepy, and tired.

Diagnosis - "What tests are done to find out what my child has?"

The diagnosis of cecal volvulus is made with abdominal X-rays. The diagnosis can be made on plain x-rays or on a CT scan. The X-rays have characteristics of intestinal blockage, including dilated intestines. Often, a loop of large intestine is seen in the left upper abdomen. If dye is used with the X-rays, the blockage will be confirmed in that area of the intestine just in front of the cecum.

Treatment - "What will be done to make my child better?"

Ultimately, the treatment for cecal volvulus is an emergency operation. Some may start with a procedure called *colonoscopy* where a flexible scope is inserted through the rectum and into the colon. The purpose of this procedure is to attempt to untwist the cecum and decompress the blocked intestines as a temporizing measure. This procedure is only successful in a few (about 15%) of cases. Untwisting using colonoscopy is a temporary treatment because the conditions still exist for the cecum to twist again.

Most of the time, cecal volvulus requires surgery. Surgery can be done using a moderate sized incision on the belly or using *laparoscopy* (small cuts in the abdomen that permit the introduction of a scope and small instruments). At surgery, the cecum is untwisted. If the cecum is dead because of lack of blood flow, it is removed. If the cecum is floppy and deemed at high risk of re-twisting, it is removed. The two cut ends of intestine are reattached. Some may fix the cecum to the inside wall of the abdomen with stitches or by placing a tube through the abdominal wall and into the cecum (cecostomy).

The benefit of this surgery is to avoid future episodes of cecal volvulus and obstruction of the intestines.

The risks of this surgery include bleeding, infection, and recurrence of the volvulus.

Home Care - "What do I need to do once my child goes home?"

Diet: Your child may eat a normal diet after discharge.

Activity: Your child should avoid strenuous activity and heavy lifting for the first 1-2 weeks after laparoscopic surgery, 4-6 weeks after open surgery.

Wound care: Surgical incisions should be kept clean and dry for a few days after surgery. Most of the time, the stitches used in children are absorbable and do not require removal. Your surgeon will give you specific guidance regarding wound care, including when your child can shower or bathe.

Medicines: Medicines for pain such as acetaminophen (Tylenol) or ibuprofen (Motrin or Advil) or something stronger like a narcotic may be needed to help with pain for a few days after surgery. Stool softeners and laxatives are needed to help regular stooling after surgery, especially if narcotics are still needed for pain.

What to call the doctor for: Call your doctor for worsening belly pain, fever, vomiting, diarrhea, problems with urination, or if the wounds are red or draining fluid.

Follow-up care: Your child should follow-up with his or her surgeon 2-3 weeks after surgery to ensure proper post-operative healing.

Long Term Outcomes - "Are there future conditions to worry about?"

After recovery from surgery, long term outcome depends upon the underlying reason for the cecal volvulus. Ask your child's surgeon.

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