Mesenteric and Omental Cysts

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

Overview - "What is it?"

A rare condition of the mesentery and omentum due to an abnormal blockage of lymphatic drainage leading to the formation of fluid filled structures called cysts

The mesentery is a double-layer of fatty tissue connecting the small intestines to the rest of the body. This is where the blood vessels to the intestines are located. Mesocolon is the mesentery to the colon (Figure 1)

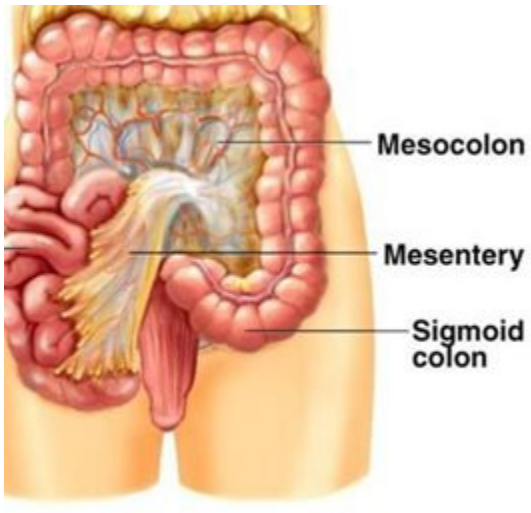

Figure 1: Mesocolon is the mesentery to the colon

Image credit: *http://images.slideplayer.com/1/273759/slides/slide_11.jpg*

The omentum is a folding of fatty tissue extending from the stomach and draping over the large and small intestines (Figure 2)

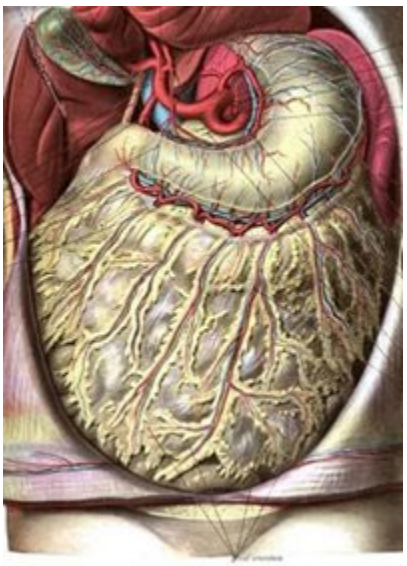

Figure 2: Omentum

Image credit: h*ttps://upload.wikimedia.org/wikipedia/commons/4/44/Sobo_1909_564.png*

Lymphatic tissue is part of the circulatory system that collects extra fluid (called lymph) from various tissues and delivers it back to the venous system

Mesenteric and omental cysts are rare but are seen in 1 in every 100,000 adult hospital admissions, while pediatric reviews demonstrates an incidence of approximately 1 in every 11,250 to 20,000 admissions.

Mesenteric cysts are 4.5 times more common than omental cysts.

Approximately one-third of cases are found in patients younger than 15 years of age. The average age in pediatric patients is 4.9 years.

Signs and Symptoms - “What symptoms will my child have?”

These masses can be incidental findings on CT scans or during abdominal operations for unrelated conditions.

Patient complaints are nonspecific. Children with symptoms can have abdominal distention due to enlarging cyst or vague abdominal pain with or without a mass. Sometimes symptoms can mimic intestinal blockage or appendicitis.

Other symptoms are infection, bleeding, twisting of the bowel leading to loss of blood supply to the intestines (volvulus), ascites fluid inside the belly cavity (ascites), or rupture of the cyst.

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

Children with belly pain usually get a regular X-ray of the abdomen first. Unless the cyst causes intestinal blockage, the presence of the cyst will not be seen on regular X-ray.

Mesenteric and omental cysts will appear as a fluid filled cyst on CT and ultrasound (Figure 3)

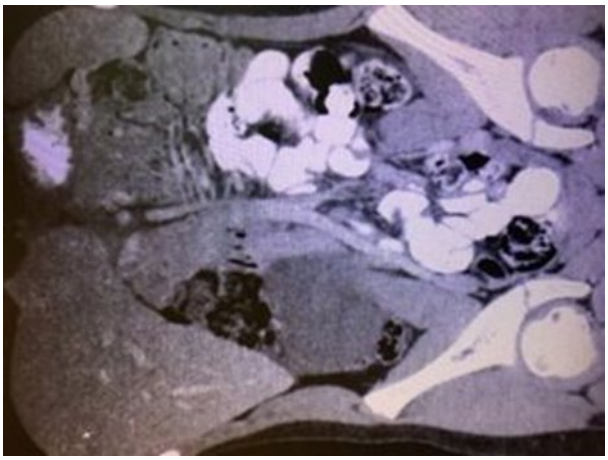

Figure 3: Mesenteric and omental cysts will appear as a fluid filled cyst on CT and ultrasound

Photo courtesy of MJArca 11/2016

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

Medical Treatment: No medicine is known to make omental or mesenteric cysts smaller.

Surgery is recommended for cysts that cause problems such as pain, infection, intestinal twisting.

- Omental cysts are removed.
- Mesenteric cysts may require removal of intestine next to the cyst. If mesenteric cysts are large and removal means removing a really long segment of intestine, partial removal or drainage of the cyst may be needed.

This can be done the traditional way ("open" or larger incision) or laparoscopic.

Open: The procedure is done through a cut on the belly.

Laparoscopy: In laparoscopic procedure, several small cuts (incisions) are made. Through one of the cuts, a video camera is placed. The surgery itself is done using small instruments placed through the other incisions. The usual number of incisions (cuts) for laparoscopic surgery vary from one (single port umbilical) to several.

Risks for surgery are low but include bleeding, infection, ascites (persistent leakage of lymph fluid in the abdomen), leakage from the bowel (if a portion of the normal bowel is removed) and risks of anesthesia. If the cyst is only partially removed, then the cyst may recur in the future.

Benefits of surgery include removal of the cyst that are causing symptoms.

Preparation for surgery: Your child will be given fluids, antibiotics, and pain medicine prior to surgery.

Postoperative Care:

- **Activity:** Typically, the child is encouraged to walk around as soon as possible.
- **Diet:** Patients are started on liquids after their surgery then advanced to a general diet.
- **Medicines:** Your child may need any of the following:
    - **Antibiotics:** To help prevent or treat an infection caused by bacteria.
    - **Anti-nausea medicine:** To control vomiting (throwing up).
    - **Pain medicine:** Pain medicine can include acetaminophen (Tylenol®), ibuprofen (Motrin®) or narcotics. These medicines can be given by vein or by mouth.

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

Length of admission to the hospital depends on the extent of the surgery. If simple cysts are removed, patients may be discharged the same day as their surgery or the following day. If intestine was removed, then hospital stay will be for a few days.

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

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 their surgeon 2-3 weeks after surgery to ensure proper post-operative healing.

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

Prognosis is excellent after surgery. Most children with mesenteric and omental cysts who undergo surgery have no long-term complications. Rare complications may include wound infection or recurrence.

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Author: Romeo C. Ignacio, Jr., MD
Editors: Patricia Lange, MD; Marjorie J. Arca, MD; Andrea Lo, MD