



SNS COLLEGE OF ALLIED HEALTH SCIENCES
SNS Kalvi Nagar, Coimbatore - 35
Affiliated to Dr MGR Medical University, Chennai



DEPARTMENT: ALLIED HEALTH SCIENCES
COURSE NAME: SURGERY

Topic: Appendicitis



CASE SCENARIO



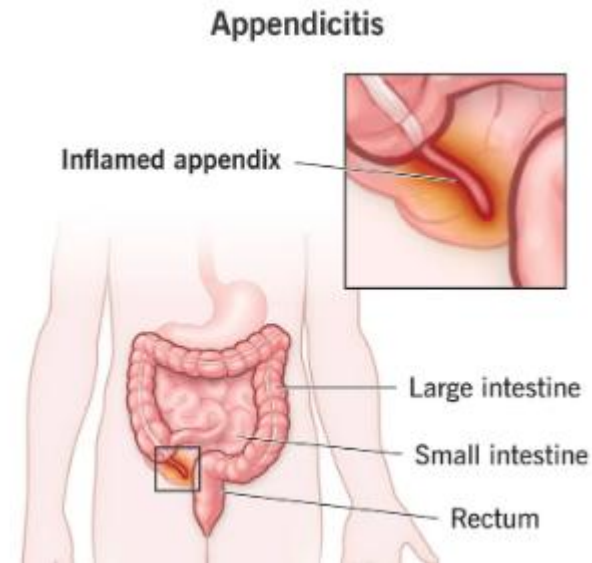
- A 23 year old male presented at a emergency department with a complain of severe abdomen pain particularly at lower lumbar quadrant
- How will we manage the patient?



Introduction



- **DEFINITION**-Appendicitis is the inflammation of the vermiform appendix. It typically presents acutely, within 24 hours of onset, but can also present as a more chronic condition. Classically, appendicitis initially presents with generalized or periumbilical abdominal pain that later localizes to the right lower quadrant.
- Appendicitis occurs when the appendix becomes inflamed and filled with pus. Appendicitis is an inflammation of the appendix. The appendix is a finger-shaped pouch t.





causes

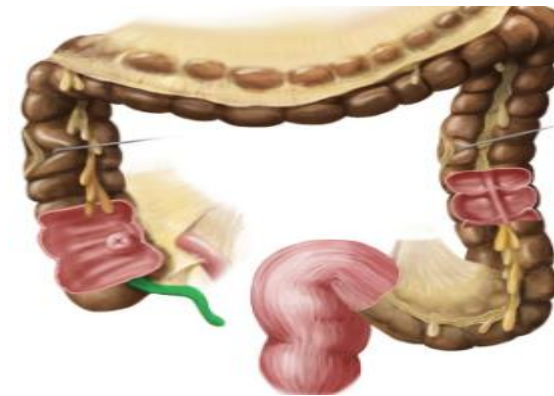


Acute appendicitis-

- Infection due to food blockage

Chronic appendicitis-

- IBD
- Stress
- Intake of Low fiber food
- A blockage in the lining of the appendix is the likely cause of appendicitis. This blockage can cause an infection. The bacteria then multiply quickly, causing the appendix to become inflamed, swollen and filled with pus. If not treated right away, the appendix can break open.





Types of Appendicitis



The two types of appendicitis depending on the onset, which are:

- **Acute Appendicitis** - It develops very fast within a few days to hours, and requires prompt medical treatment or surgery.
- **Chronic Appendicitis** - Here, the inflammation lasts for a long time. It is a rare condition.

And depending on the complications:

- **Simple Appendicitis** - Cases with no complications.
- **Complex Appendicitis** - Cases that involve complications like appendix rupture or abscess.

Pathophysiology

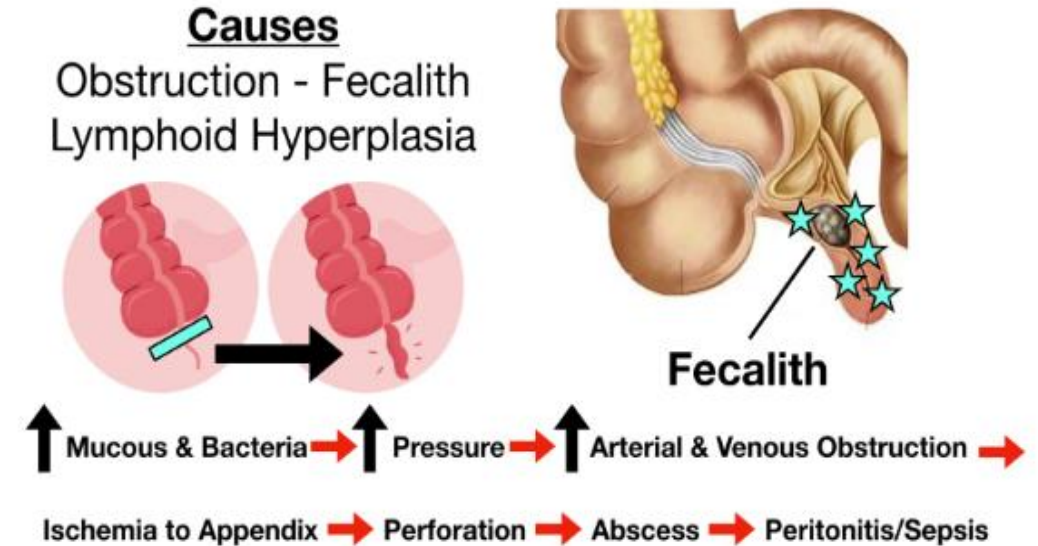
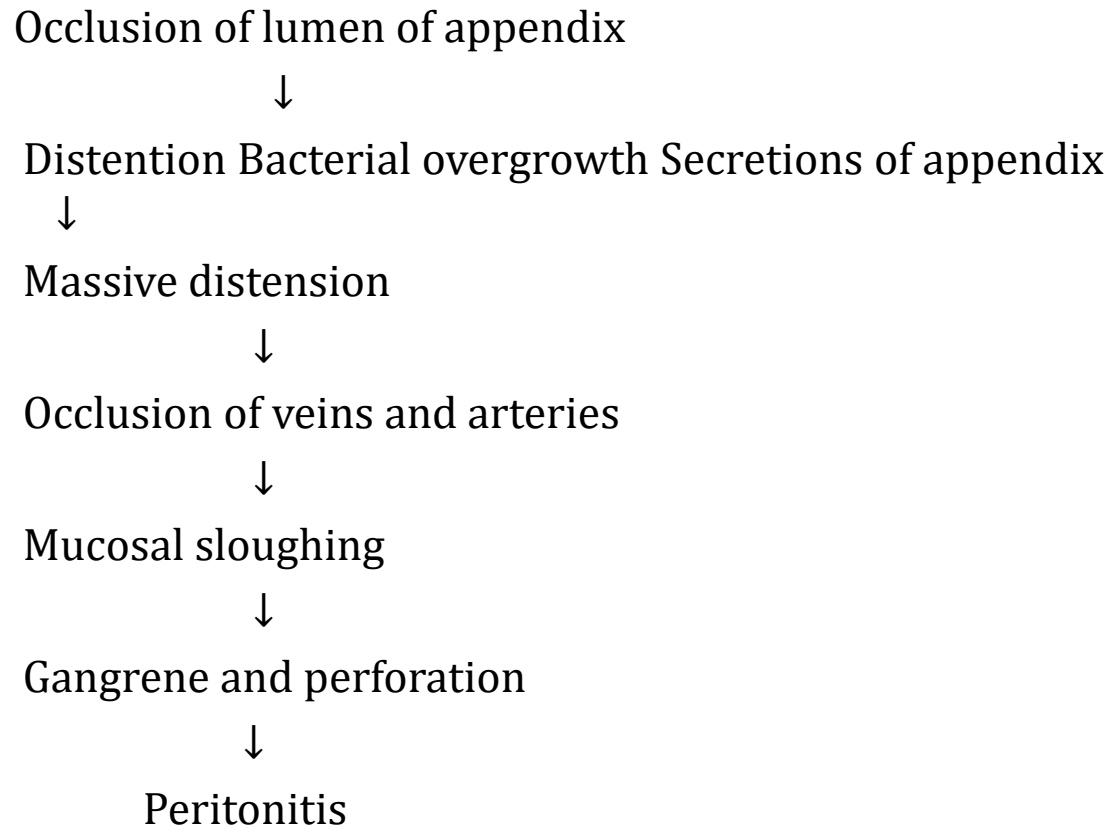
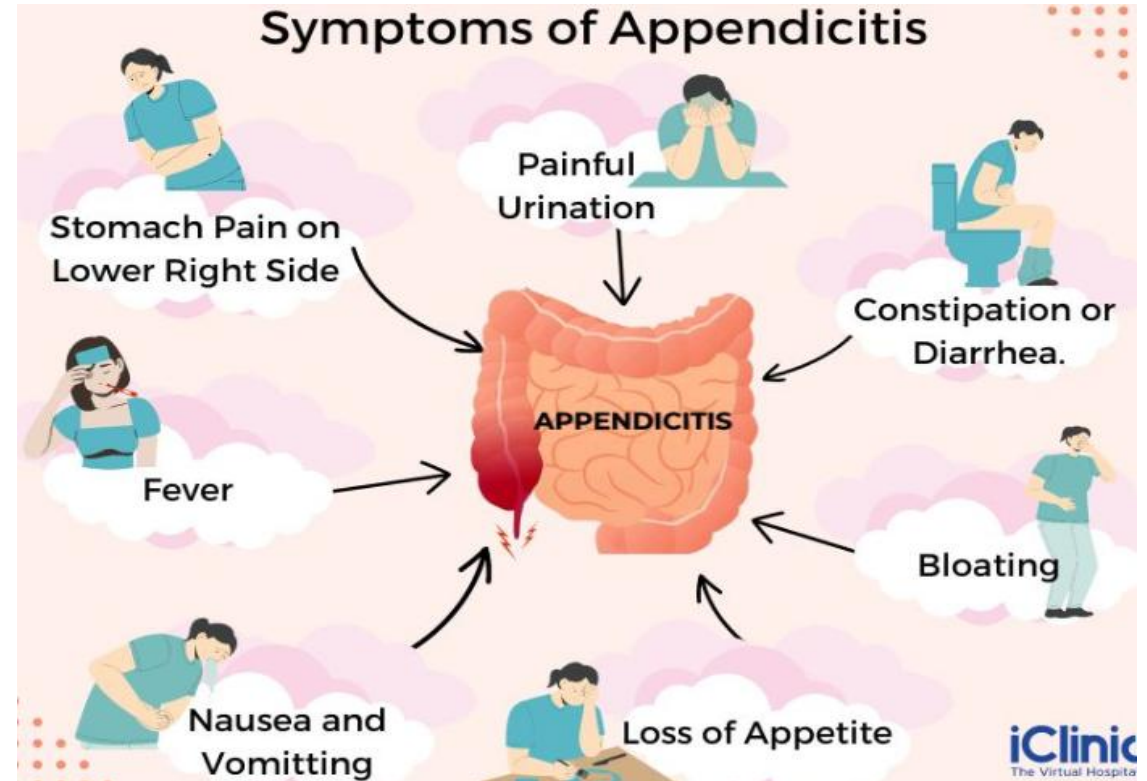


Image: The obstructed appendix can lead to an increase in mucous buildup and bacteria, which increases the pressure of the appendix, which compromises blood flow to the appendix, which can lead to ischemia of the appendix, which can lead to further complications.

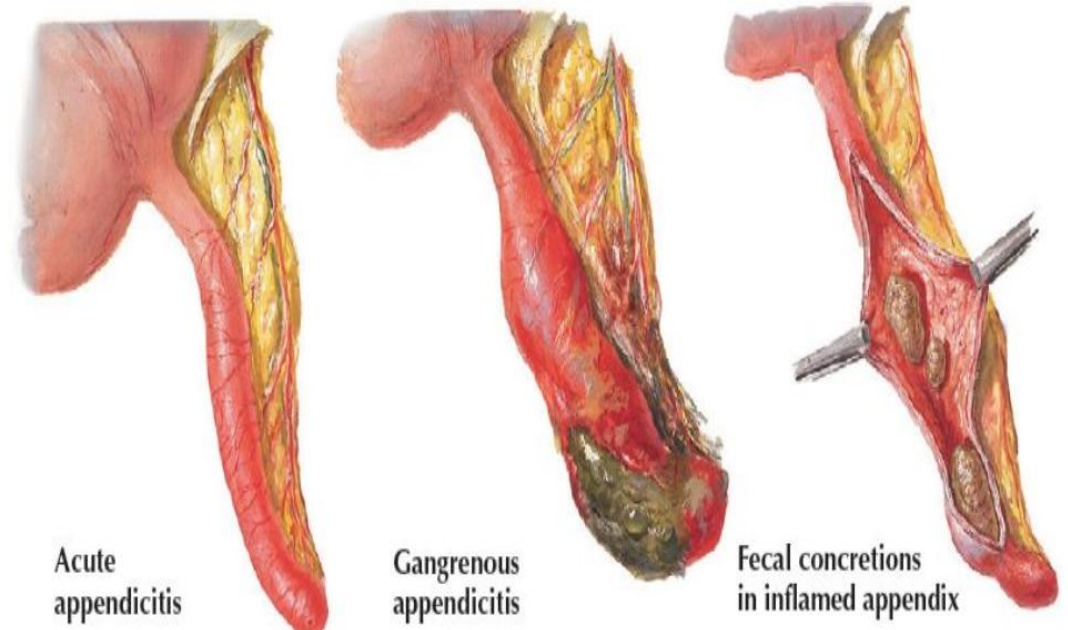
Clinical manifestation

- Sudden pain that begins on the right side of the lower abdomen.
- Sudden pain that begins around the navel and often shifts to the lower right abdomen.
- Pain that worsens with coughing, walking or making other jarring movements.
- Nausea and vomiting.
- Loss of appetite.
- Low-grade fever that may rise as the illness worsens.
- Constipation or diarrhea.
- Abdominal bloating.



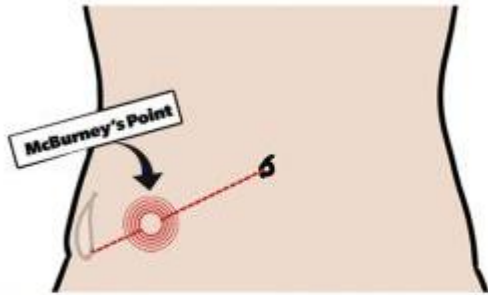
Complications

- **Abscess** - Collection of pus in the appendix.
- **Ruptured Appendix** - It spills fecal matters and bacteria in the abdominal cavity.
- **Peritonitis** - Bacteria can cause inflammation of the abdominal lining, which can be fatal.
- **Spread of Infection** - The infection can travel through the bloodstream and infect other organs.



Signs of appendicitis

McBurney's Sign



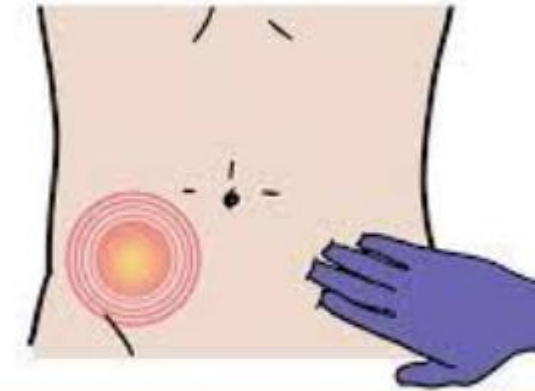
A positive Mcburney's sign is when significant pain is elicited by palpating this area in the RLQ.

This could mean appendicitis.

• **Dunphy's sign:** Increased pain in the right lower quadrant with coughing.



Rovsing's Sign



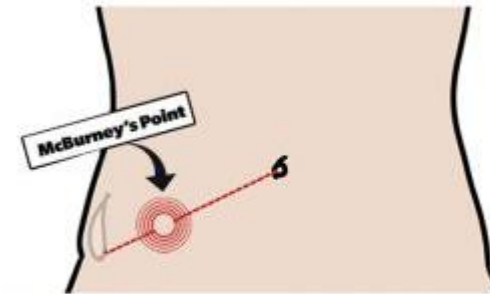
A positive Rovsing's sign is when there is tenderness in the RLQ when palpating the LLQ

This could also mean **appendicitis**

Diagnosis

- History collection
- Physical examination-the pressure is suddenly released, appendicitis pain will often feel worse. This is because of inflammation of the lining of the abdominal cavity, called the peritoneum.
- **Blood test**- checks for a high white blood cell count. A high white blood cell count may indicate an infection.
- **Urine test**- to rule out the urinary tract infection

McBurney's Sign



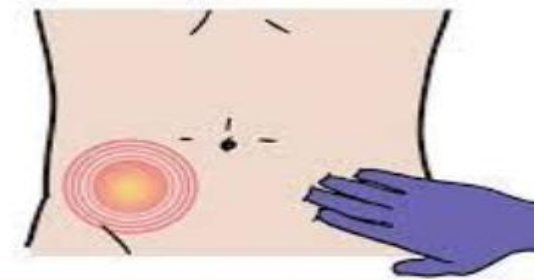
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Rovsing's Sign



A positive Rovsing's sign is when there is tenderness in the RLQ when palpating the LLQ

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First line management of appendicitis



- Analgesic
- Antibiotic
- Antiemetic
- Fluid therapy

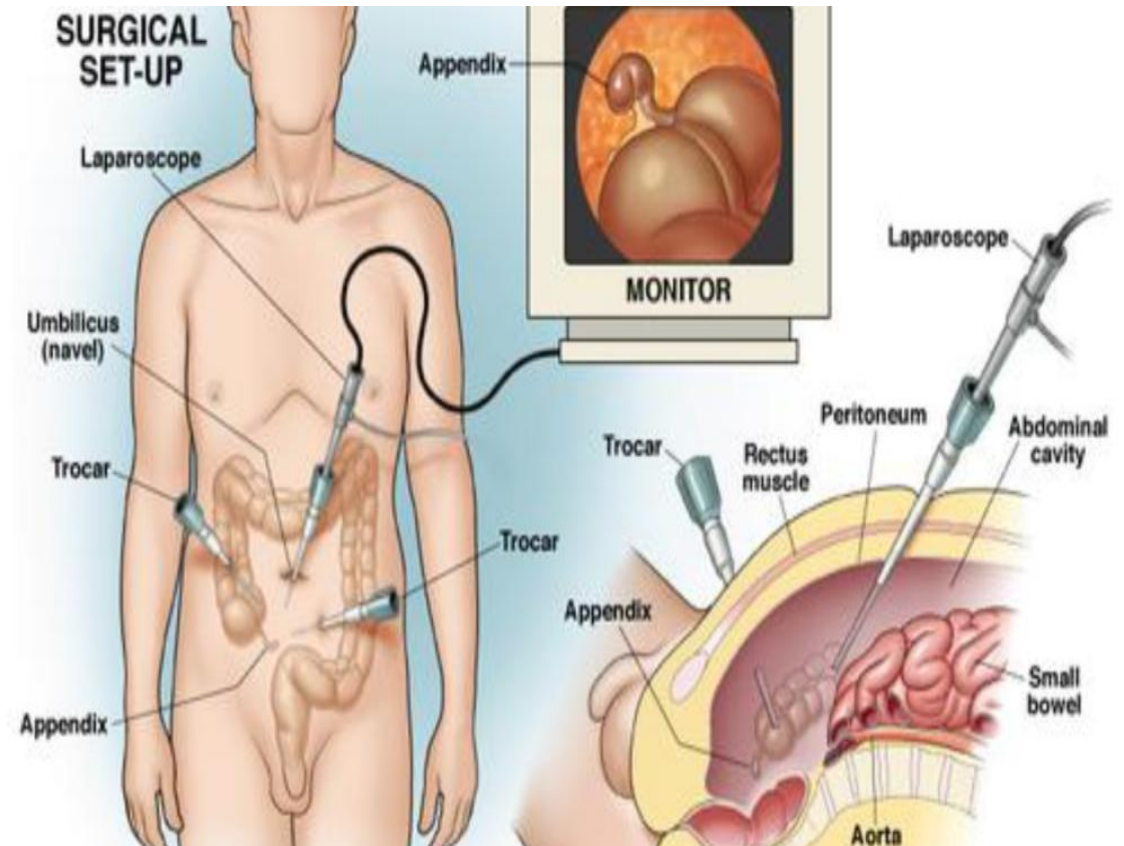
- Surgical management
- Laprotomy
- Laparoscopic surgery

Surgical procedure

- **Appendectomy** is a surgery to remove the appendix. Appendectomy can be performed as open surgery using one abdominal cut about 2 to 4 inches long. This is called **laparotomy**.
- The surgery also can be done through a few small abdominal cuts. This is called **laparoscopic surgery**. During a laparoscopic appendectomy, the surgeon places special tools and a video camera into your abdomen to remove your appendix.

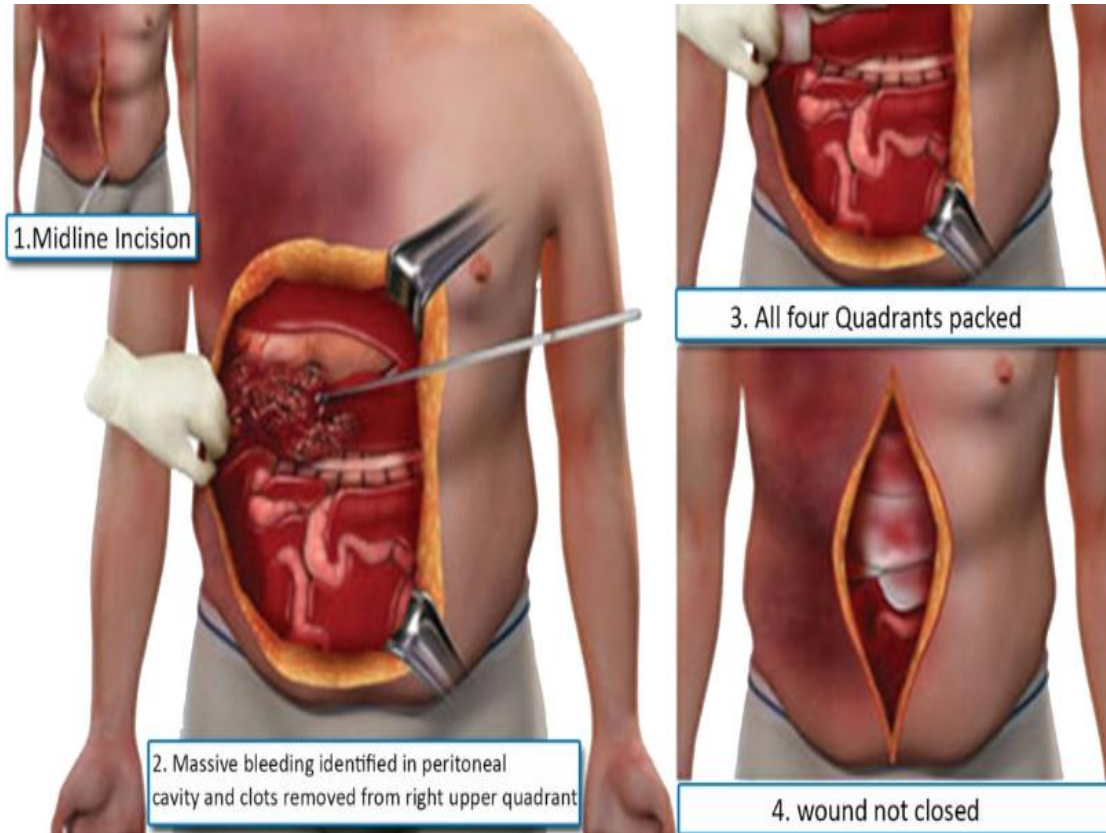
Draining the Abscess Before Surgery:

- In case the appendix has burst and an abscess has formed around it, the abscess is drained before appendectomy. The abscess is drained by placing a tube through the skin.



Laprotomy

- A laparotomy is a surgical procedure involving a surgical incision through the abdominal wall to gain access into the abdominal cavity. It is also known as a celiotomy.





Reference



- The Text Book of Pathology author Nithin chawla
- For further reference –YouTube animated videos on surgical management on appendicitis