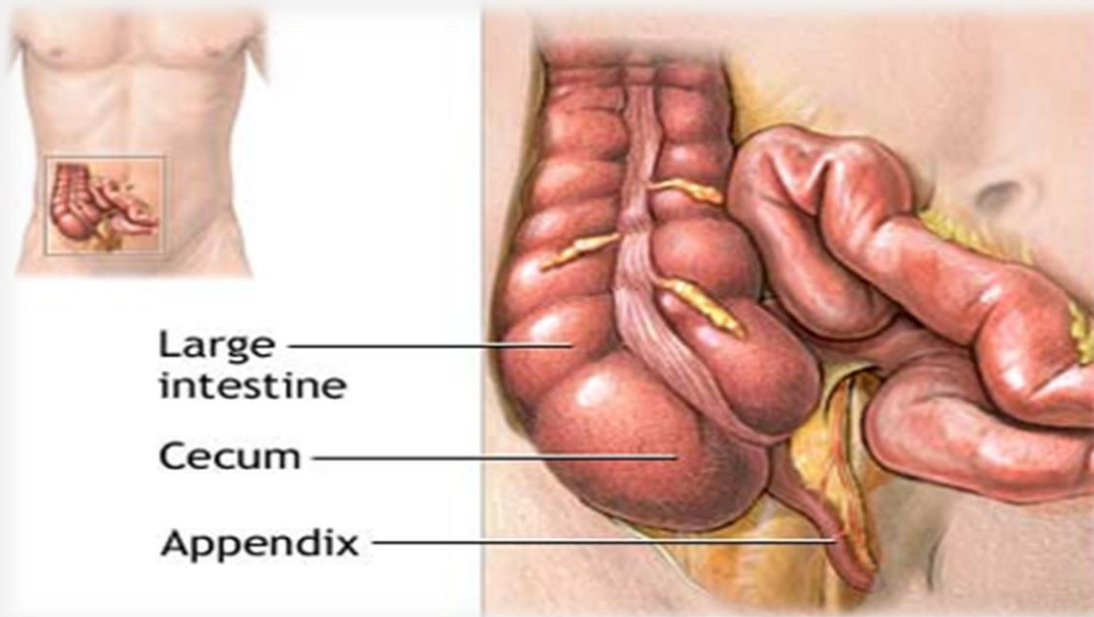


# ACUTE APPENDICITIS

# INTRODUCTION

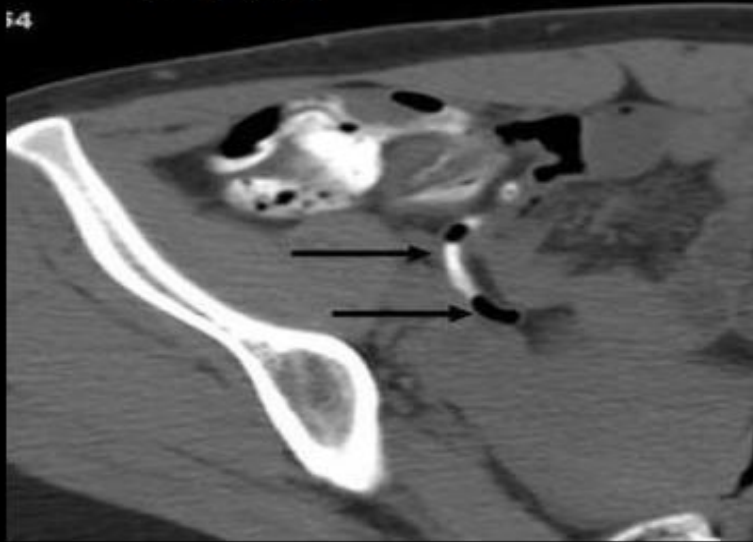
## APPENDIX

- This 3 1/2-inch-long tube of tissue extends from your large intestine on the lower right side of your body.
- Location of the base of the appendix is relatively constant, located roughly between the ileocecal valve and the apex of the caecum.



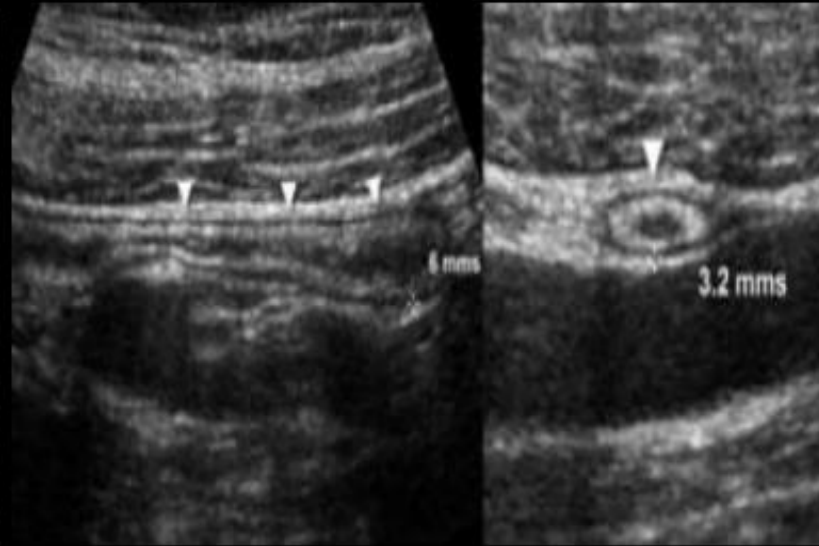
# NORMAL APPENDIX

CT SCAN



CT scan after oral contrast administration in 32-year-old woman with normal appendix. Note normal appendix with intraluminal enteric contrast material and gas (*arrows*). Appendix wall is nearly imperceptibly thin.

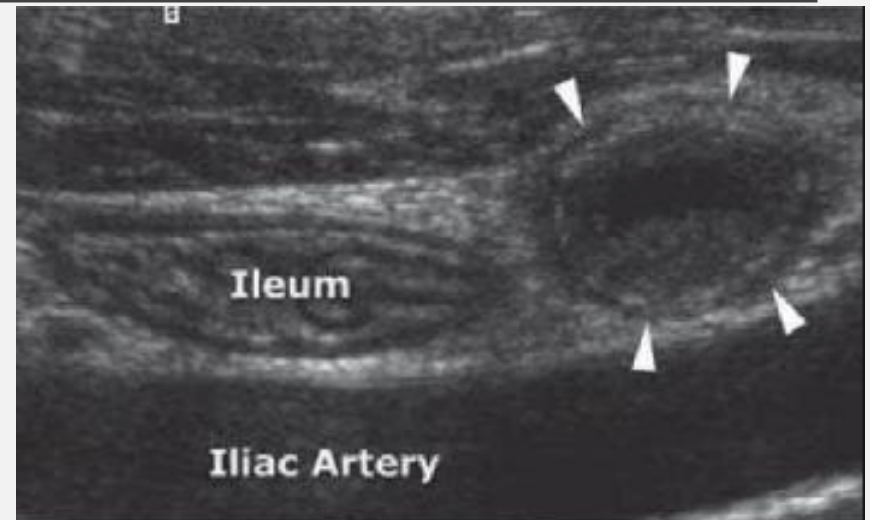
ULTRASOUND



34-year-old healthy volunteer with a normal appendix. A and B, longitudinal (A) and transverse (B) sonogram, showing the appendix (arrowheads) with a diameter less than the 7 mm cut-off point, surrounded by normal noninflamed fat.

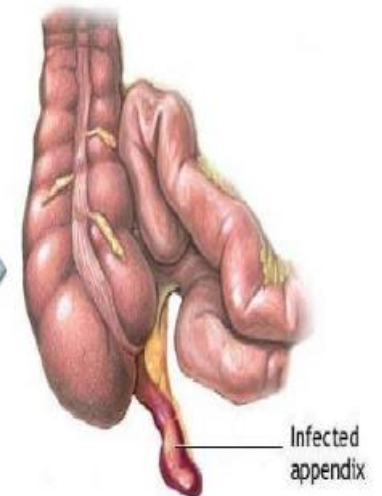
# APPENDICITIS

- Inflammation of the appendix.
- Acute appendicitis occurs when the appendiceal lumen is obstructed, leading to fluid accumulation, luminal distention, inflammation, and, finally, perforation.
- Obstruction may be caused by :
  - ✓ lymphoid hyperplasia (60%)
  - ✓ appendicolith
  - ✓ foreign bodies
  - ✓ Crohn's disease
  - ✓ other rare causes, tumor



**INFLAMMATION OF  
APPENDIX IS  
APPENDICITIS**

Generally Caused by  
an obstruction:  
Faecalith. Lymphoid  
obstruction, Infection.

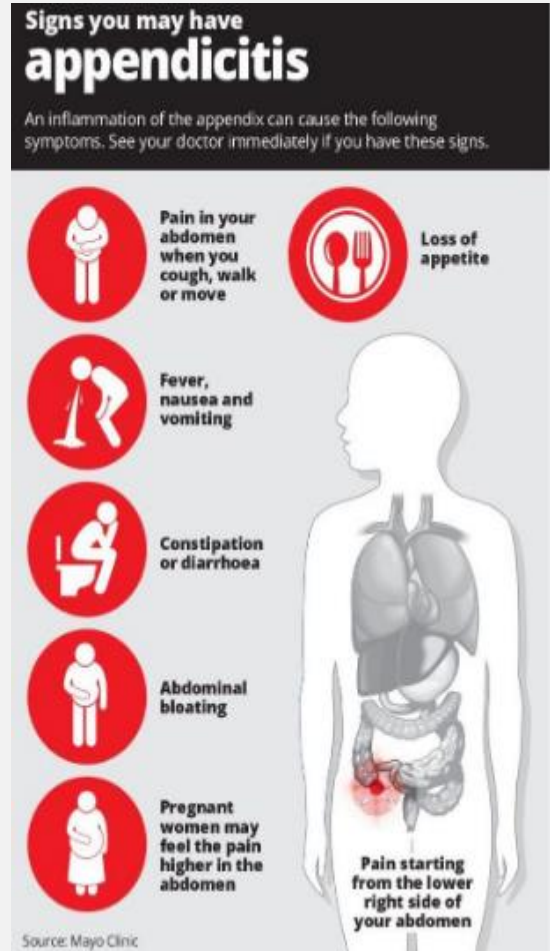


# SYMPTOMS OF APPENDICITIS

- Right lower quadrant pain on palpation (the single most important sign )
- Loss of appetite
- Nausea and vomiting soon after belly pain begins
- Swollen belly
- increased pain with coughing
- Fever

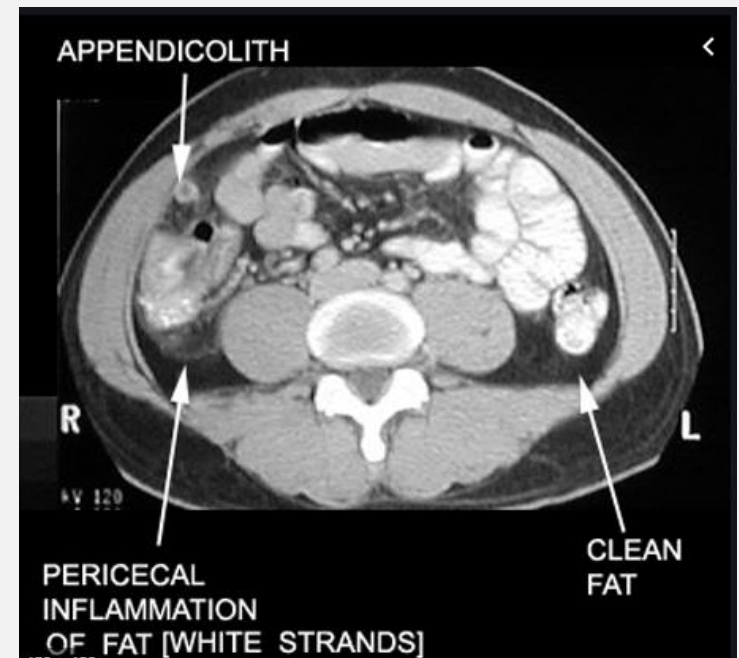
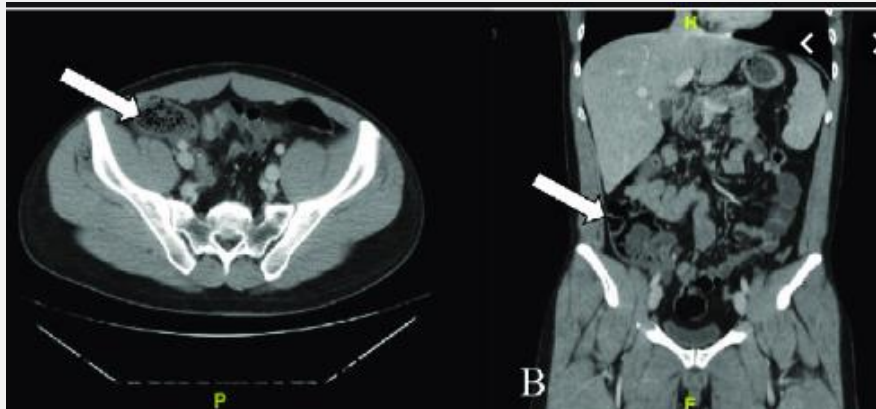
## Appendicitis Diagnosed

- Examination of your abdomen to look for inflammation
- Urine (pee) test to rule out a urinary tract infection
- Rectal exam
- Blood test to see whether your body is fighting an infection
- CT scans
- Ultrasound



## CT SCAN:

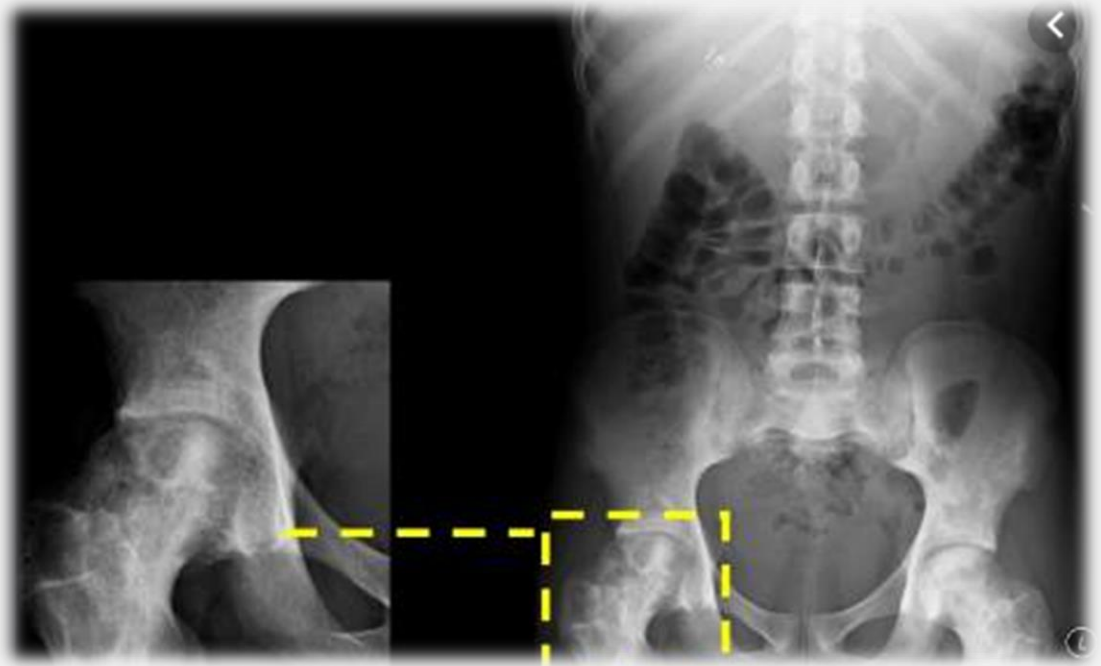
- CT is highly sensitive and specific for the diagnosis of acute appendicitis and allows for alternative causes of abdominal pain to also be diagnosed.
- ✓ Dilated appendix with distended lumen ( $>6$  mm diameter)
- ✓ Thickened and enhancing wall
- ✓ Periappendiceal inflammation
- ✓ Inflammation of soft tissue
- ✓ Abscess formation
- ✓ Appendicolith may also be identified





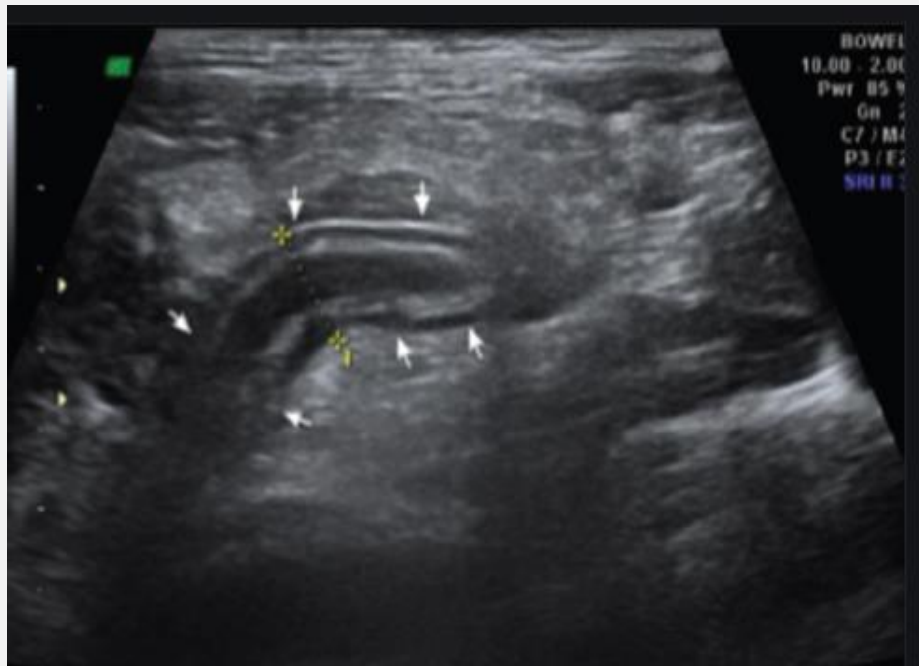
## ❖ Radiography:

- Abdominal radiographs are normal in many patients with acute appendicitis.
- ✓ Right lower quadrant mass indenting on caecum
- ✓ Free peritoneal air very uncommon
- ✓ With perforation
- ✓ Small bowel obstruction



## ❖ Ultrasound:

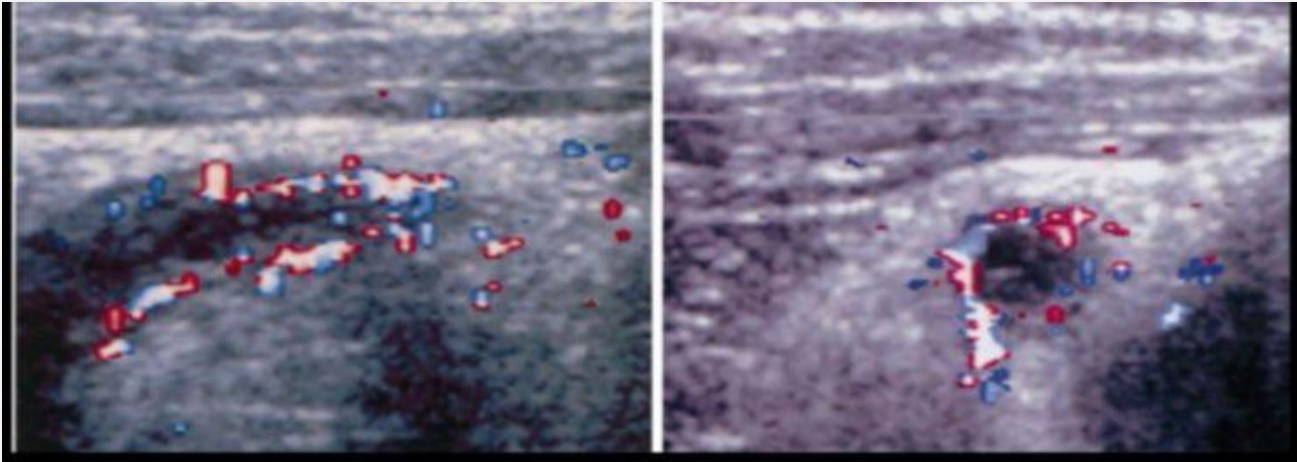
- The maximal appendiceal diameter, from outside wall to outside wall, is greater than 7 mm
- Target appearance : If fluid is present in the lumen, a fluid-filled center and surrounded by a echogenic mucosa and submucosa and hypoechoic muscularis, may be seen when imaging in the axial plane
- Shadowing, echogenic appendicolith.





## ❖ Color doppler

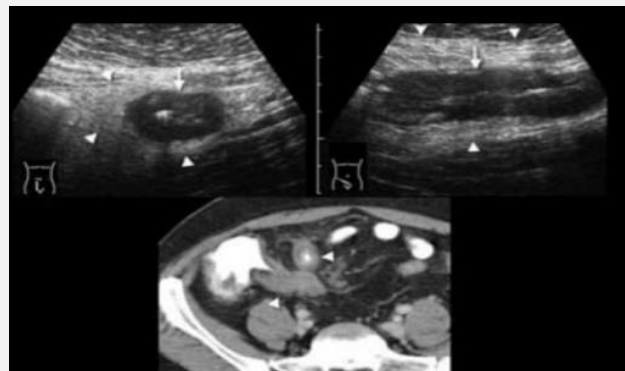
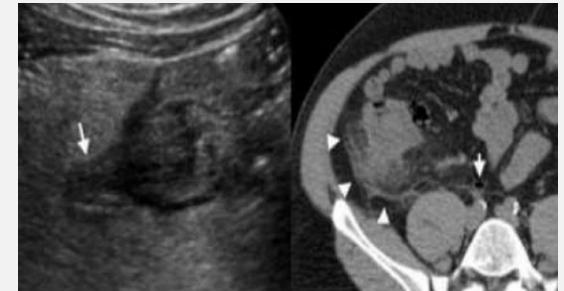
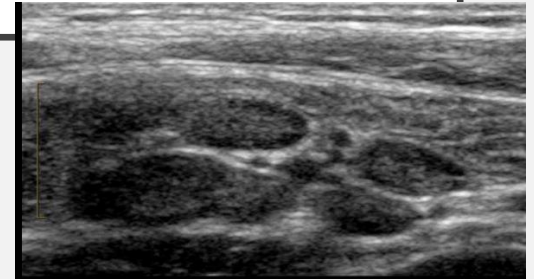
- ❑ Peripheral wall hyperemia, reflecting inflammatory hyperperfusion.
  - In early inflammation, color flow may be absent or limited to the appendiceal tip.
  - Color flow may also be absent in gangrenous appendicitis.
- ❑ In appendiceal perforation hyperemia in the periappendiceal soft tissues or within a well-defined abscess.



- Longitudinal and transverse US images through an inflamed appendix demonstrate marked hyperemia along the periphery

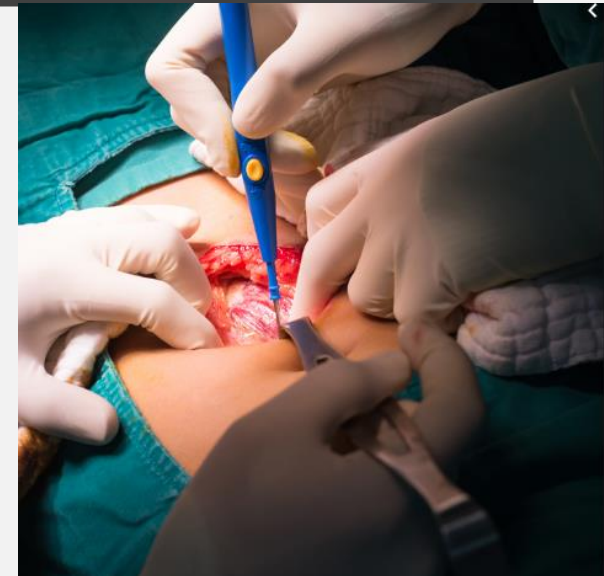
# DIFFERENTIAL DIAGNOSIS

1. **Mesenteric Adenitis** : It is a benign inflammation of the ileocolic lymph nodes
2. **Cecal Diverticulitis** : is an uncommon cause of acute abdominal pain
3. **Epiploic Appendagitis** : is a rare condition that causes intense stomach pain.
4. **Omental Infarction** : IS an acute vascular disorder which compromises tissue of the greater omentum
5. **Crohn's Disease**: is an inflammatory bowel disease (IBD). It causes inflammation of your digestive tract, which can lead to abdominal pain.



# TREATMENT FOR APPENDICITIS

- Appendicitis is almost always treated as an emergency. Surgery to remove the appendix, which is called an appendectomy, is the standard treatment for almost all cases of appendicitis.
- **Antibiotics-** in appendicitis cover gram negatives (gentamicin/ceftriaxone), enterococcus (ampicillin/vancomycin), anaerobes (metronidazole)



Appendectomy---*SURGERY*

Laparoscopic or Open Appendectomy

\*\*Plastron appendicitis— delayed appendectomy (6 weeks later)

THE

END