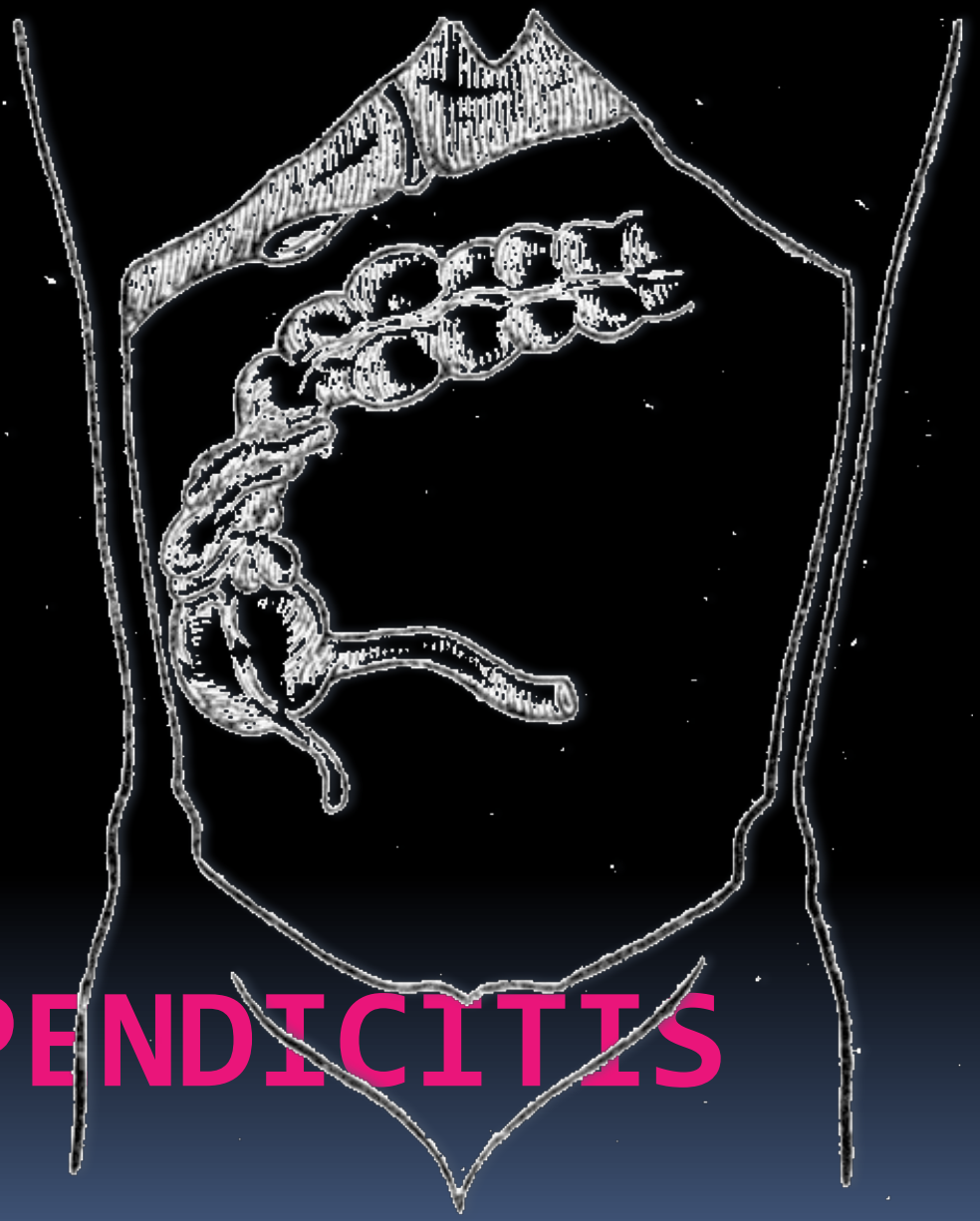
Lecture



ACUTE APPENDICITIS

- Appendicitis: appendicitis is a sudden inflammation of the appendix. Appendicitis is one of the most common causes of emergency abdominal surgery in children. Approximately 4 appendectomies per 1,000 children are done annually in the United States.

Appendicitis is more common in males than in females, and incidence peaks in the late teens and early 20s. The condition is uncommon among children younger than 2, but it can occur.

Etiology

1. Infectious theory
2. Obstruction theory
3. Neuroproliferation theory
4. Venous congestion theory

Pathogenesis of acute appendicitis

Obstruction of appendix (coprolith, muscular spasm, helminth)

Appearance of closed cavity

Occupation of mucus, transsudate

Infection

High pressure in the appendix

Dysfunction of neuro reflex system

Spasm of vessels muscular

Ischemia of the appendix wall with trophic changes

Penetration of infection in mucous (primary Aschoff's affect)

Inflammation

Edema of appendix

Suppurative destruction of tissues

Necrosis of appendix wall

Penetration of infection to the abdominal cavity

Complications

Clinical manifestation

1. The clinical signs and symptoms depend on the pathologic phase of appendicitis at examenation.
2. The classic tread consist of pain, muscular defans, Blumberg symptom.

Later symptoms

- Loss of appetite
- Nausea
- Vomiting
- Constipation
- Rectal tenderness
- Chills and shaking

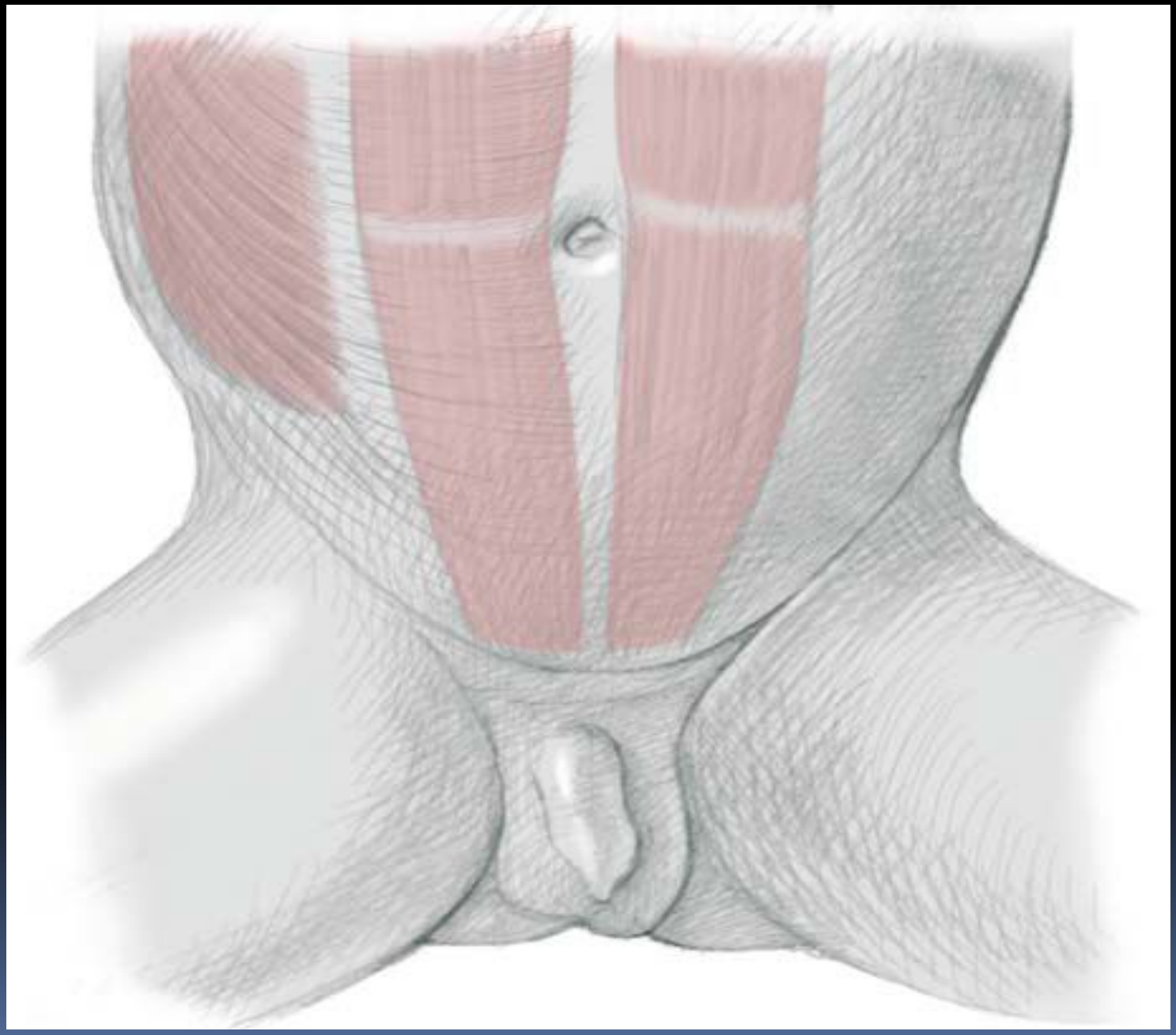
Abdominal pain

- Abdominal pain is a nonspecific symptom that may be associated with a multitude of conditions. Some do not occur within the abdomen itself, but cause abdominal discomfort.

- Abdominal pain can be caused by toxins, infection, biliary tract disease, liver disease, renal disease, bladder infections, menstruation, ovulation, female and male genitourinary disease, vascular problems, malignancy, ulcers, perforation, pancreatic disease, hernias, trauma, and metabolic diseases.

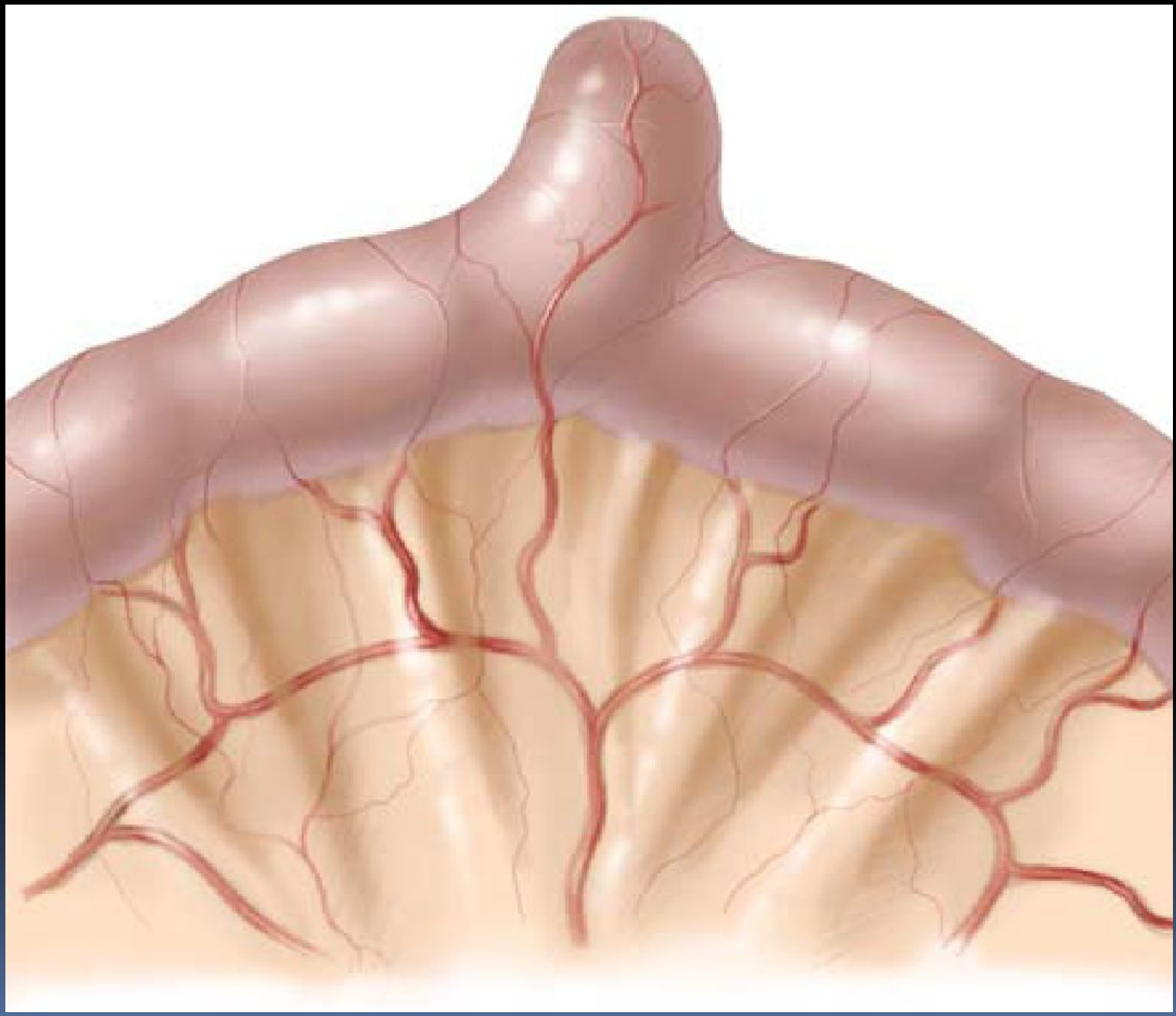
- During physical examination, the health care provider will try to determine if the pain is localized to a single area (point tenderness) or diffuse, and if the pain is related to inflammation of the peritoneum or of the abdomen. If the health care provider finds evidence of peritoneal inflammation, the abdominal pain may be classified as an "acute abdomen", which often requires prompt surgical intervention.

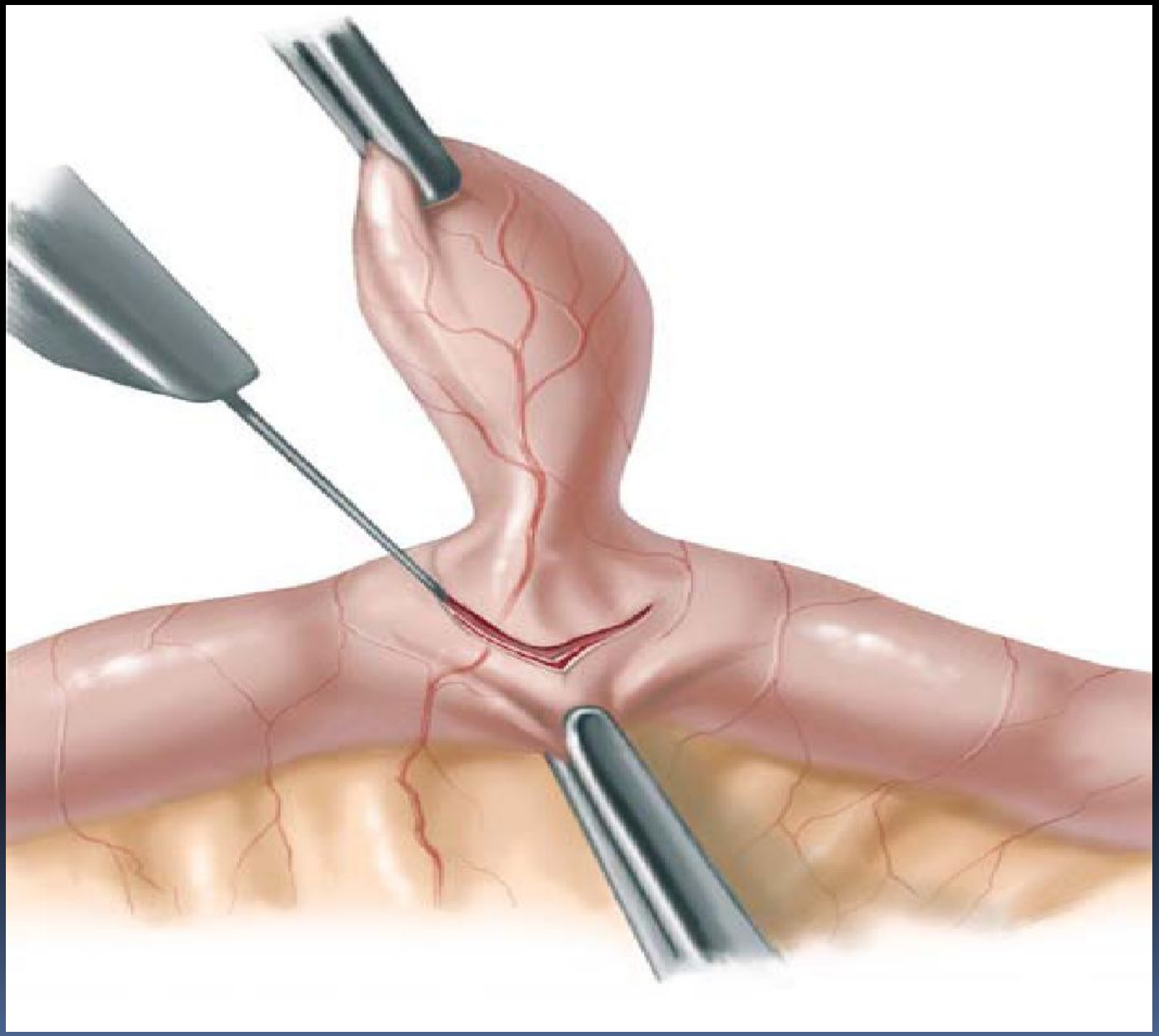
- In addition, the health care provider will try to relate the abdominal tenderness to other general symptoms, such as fever, fatigue, general ill feeling (malaise), nausea, vomiting, or changes in stool. Then, the provider will ask about increasingly specific symptoms as the diagnostic considerations are narrowed.

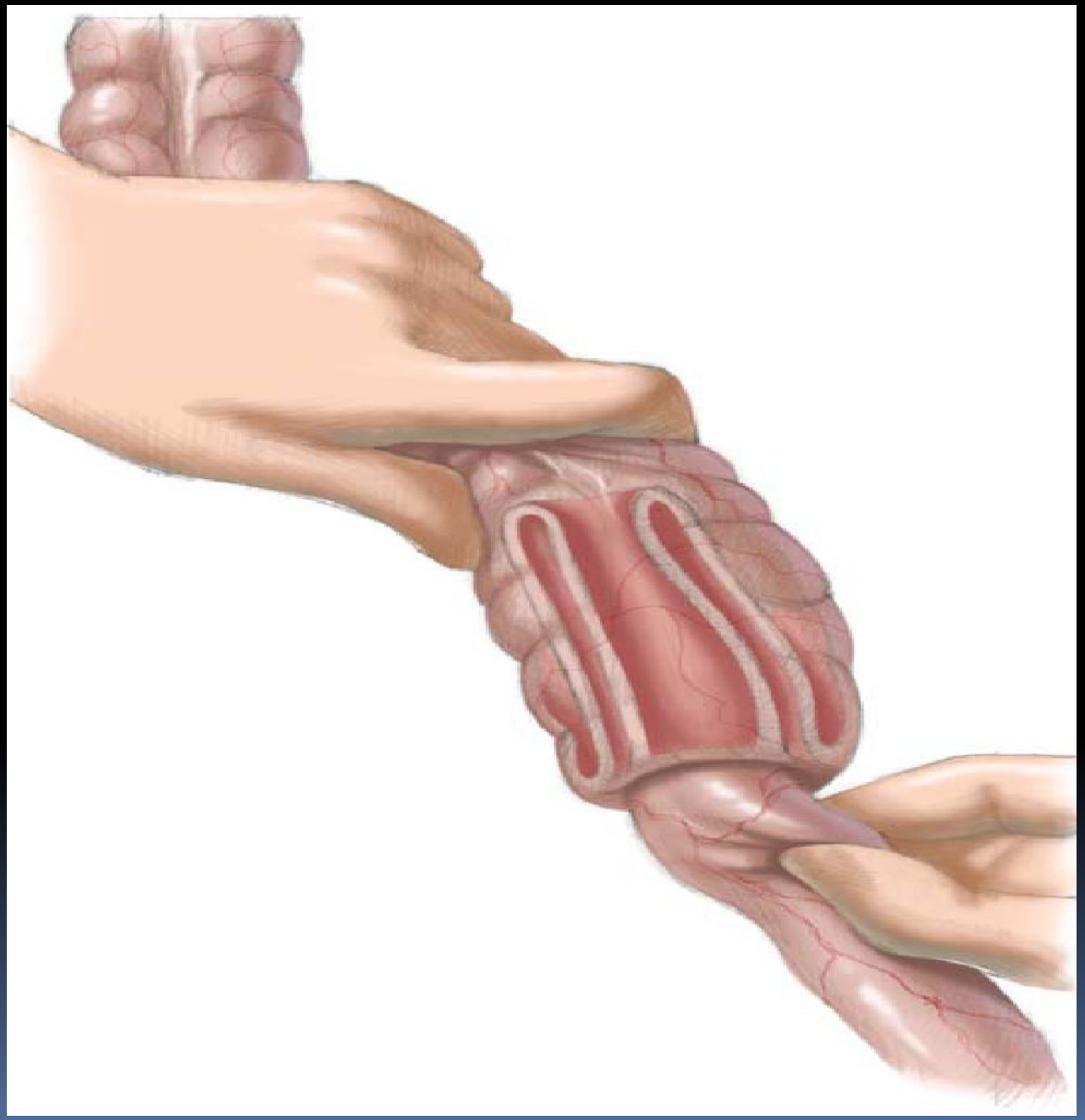


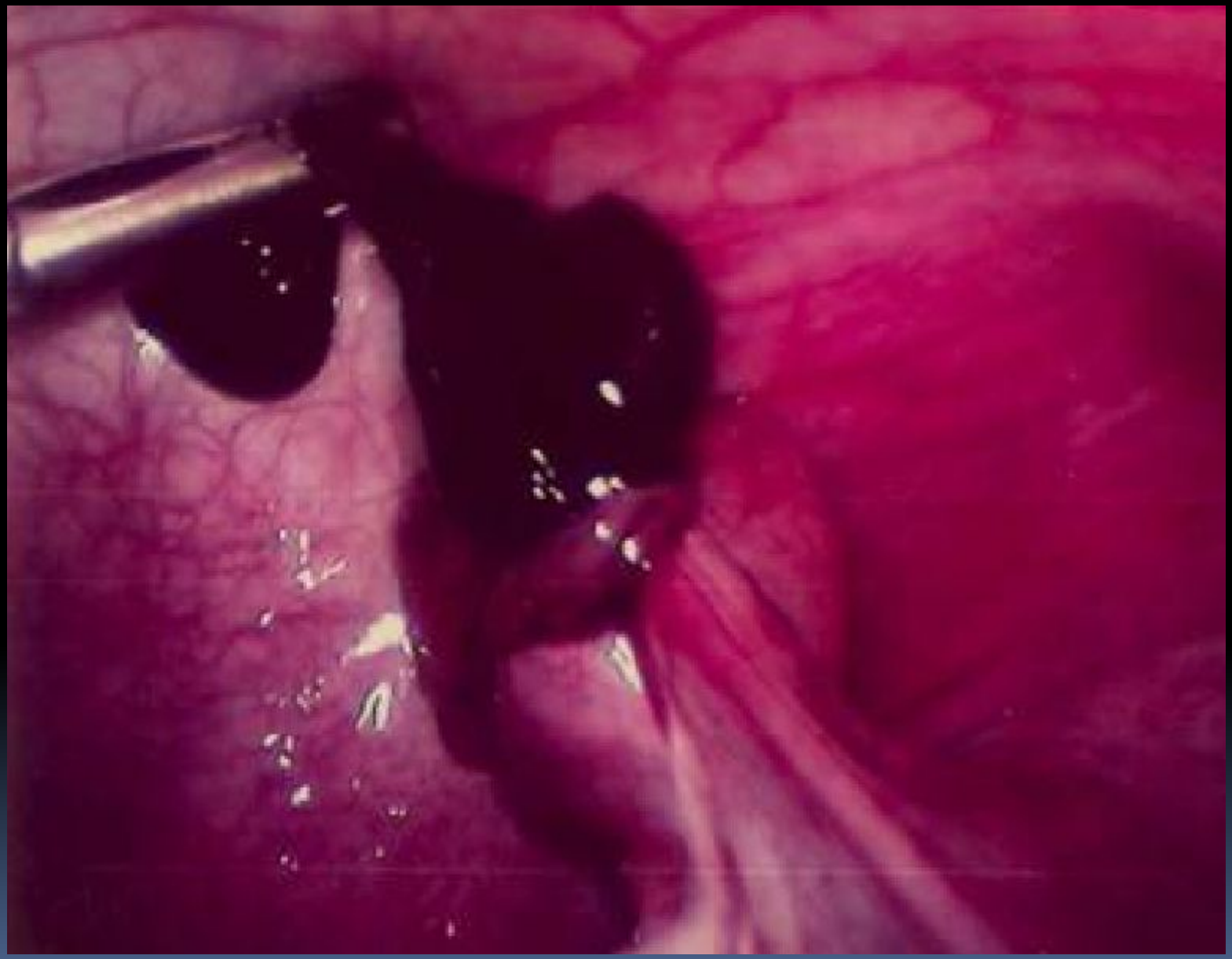
Differential diagnosis

- 1. Gastroenteritis
- 2. Diverticulitis
- 3. Mesenteric adenitis
- 4. Intussusception
- 5. Hemolytic – uremic syndrome
- 6. Follicular cysts of the ovary
- 7. Henoch – Schonlein purpura
- 8. Acute pyelonephritis





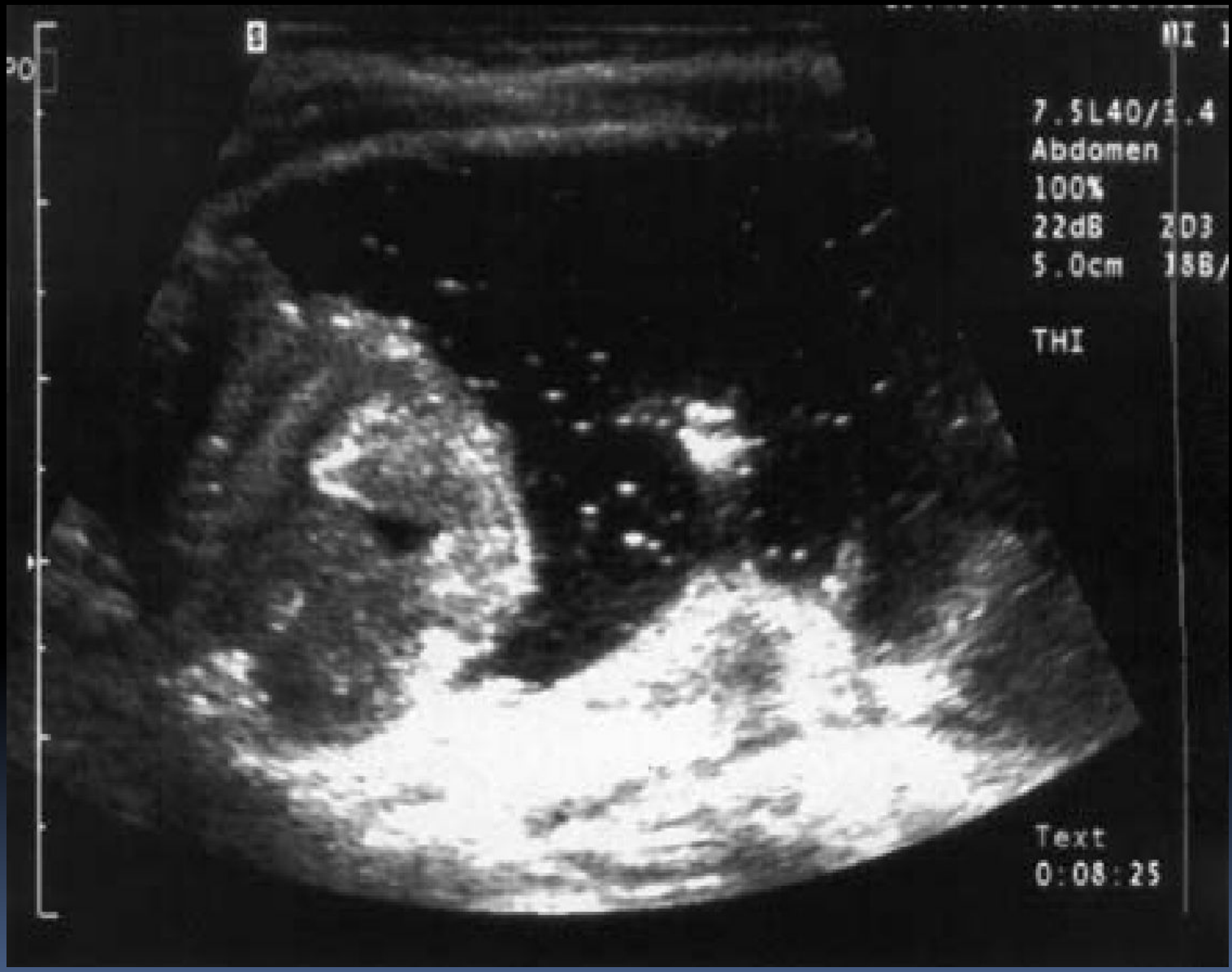


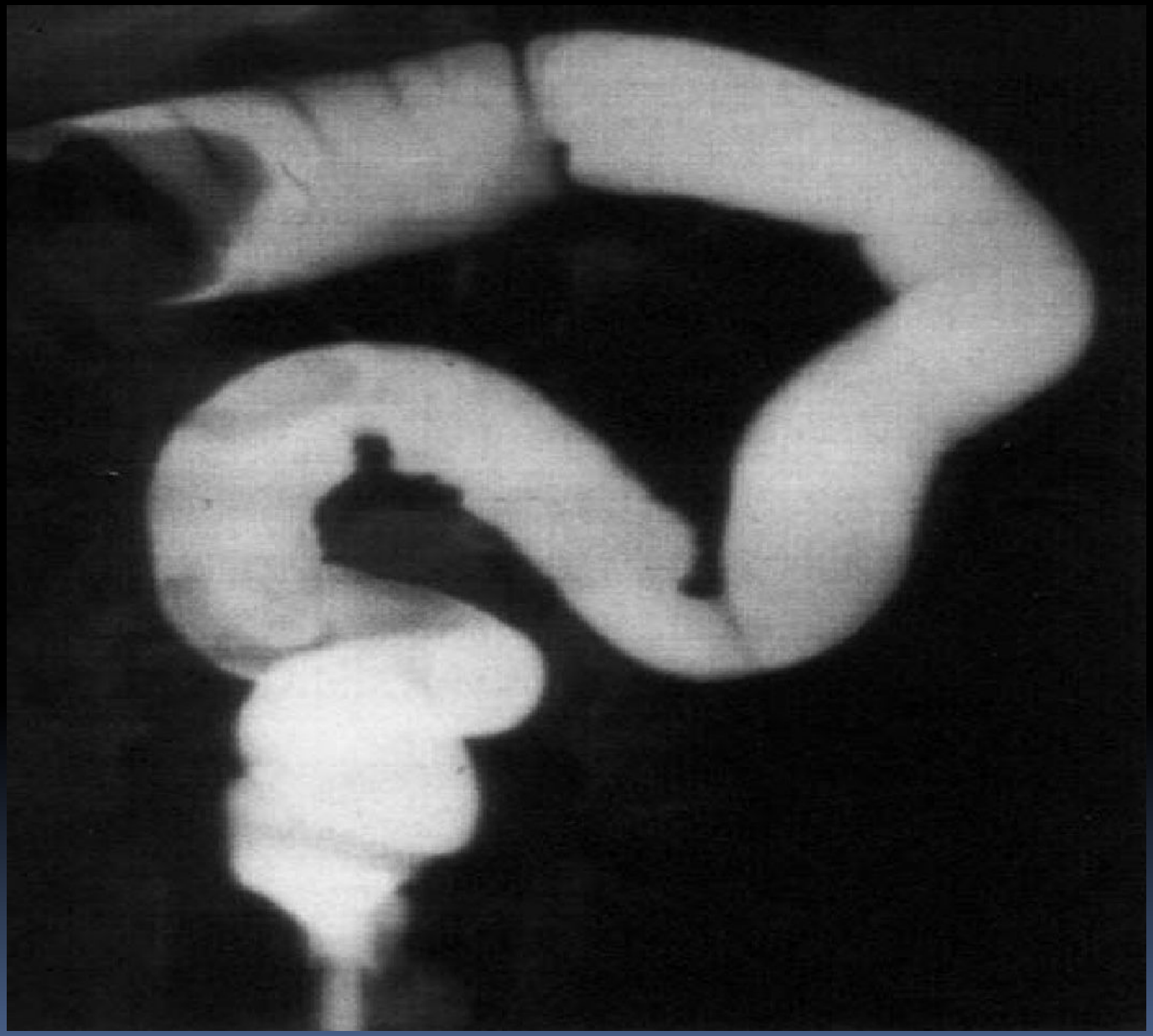


Signs and tests

- CT scan revealing thickening of the inflamed area
- colonoscopy
- sigmoidoscopy
- barium enema
- abdominal palpation showing left lower quadrant mass
- stool hemoccult test revealing blood
- elevated white blood cell count


COLON 4
B
7.5L40/
Abdomen
100%
14dB
6.0cm
THI
Text
0:08:25


7.5L40/3.4
Abdomen
100%
22dB
5.0cm
THI
Text
0:08:25

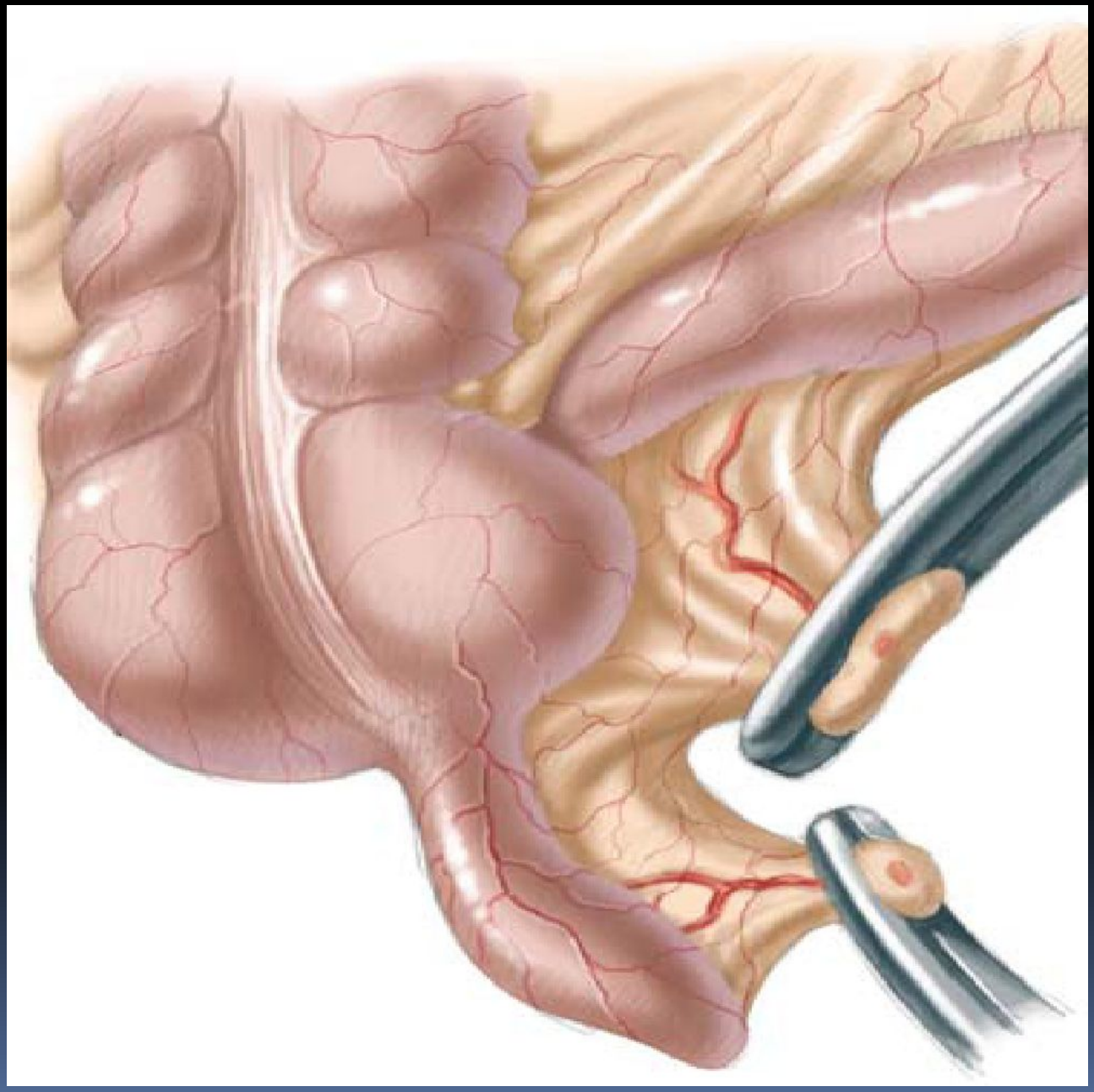


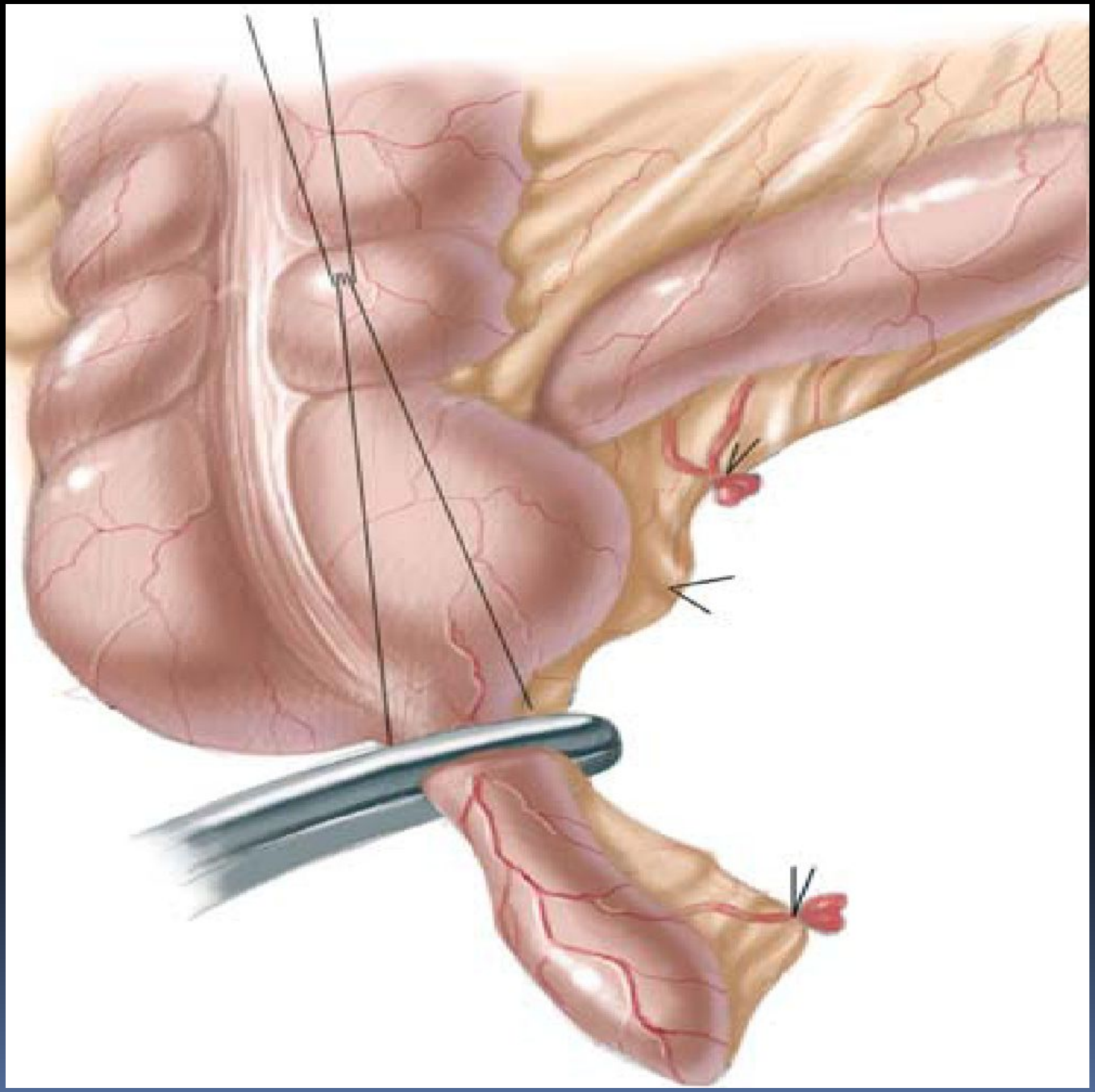
Complications

- Peritonitis
- Wound infection
- Intra-abdominal abscess
- Intestinal obstruction

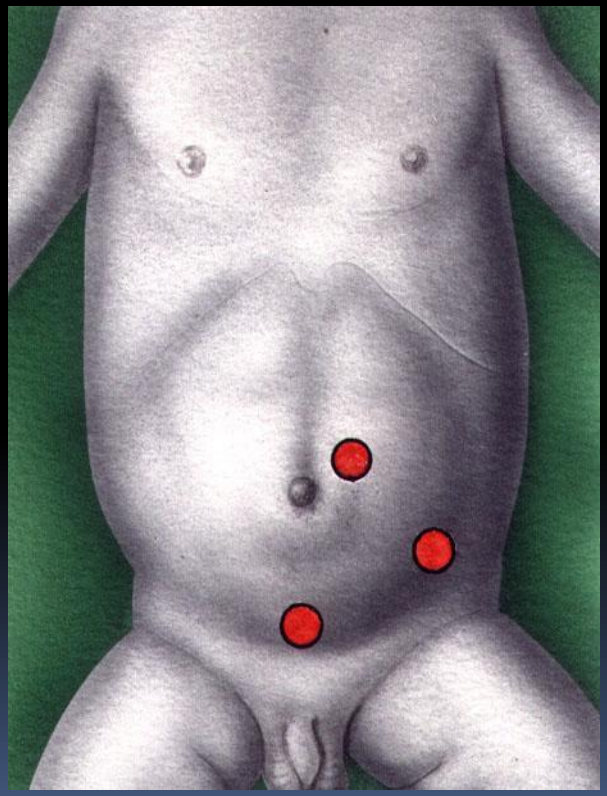
Treatment complications

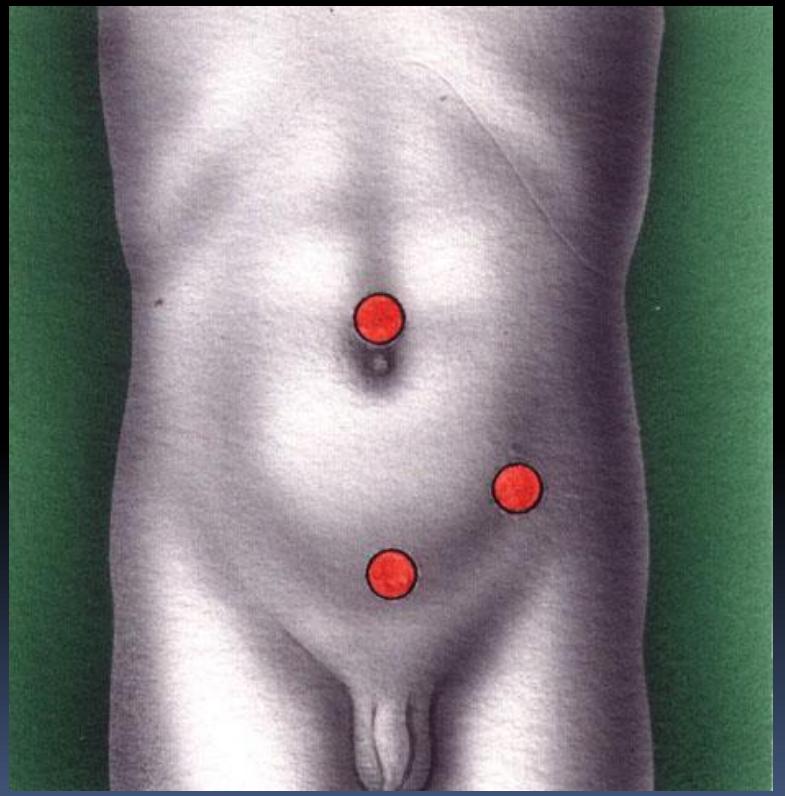
- Acute diverticulitis requires antibiotic therapy.
- Recurrent attacks or presence of perforation (hole), fistula (abnormal tube-like passage), or abscess requires surgical removal of the involved portion of the colon.
- After the acute infection has stabilized, diverticulitis is treated by increasing the bulk in the diet with high-fiber foods and bulk additives such as Metamucil.

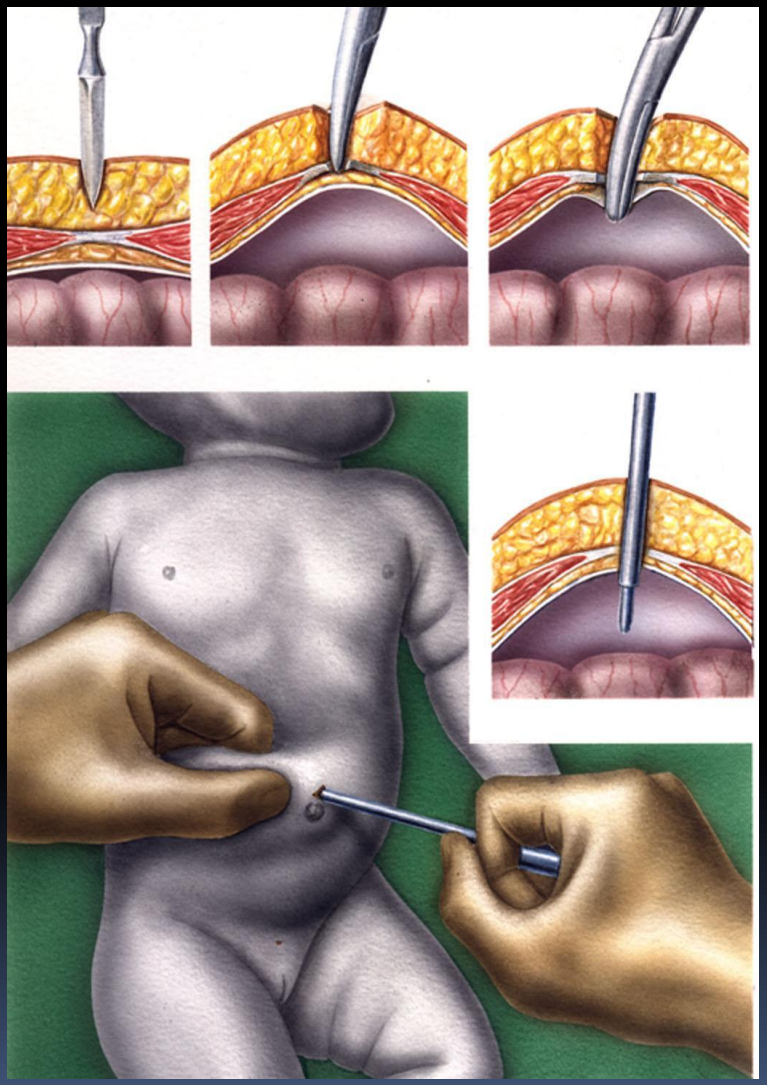


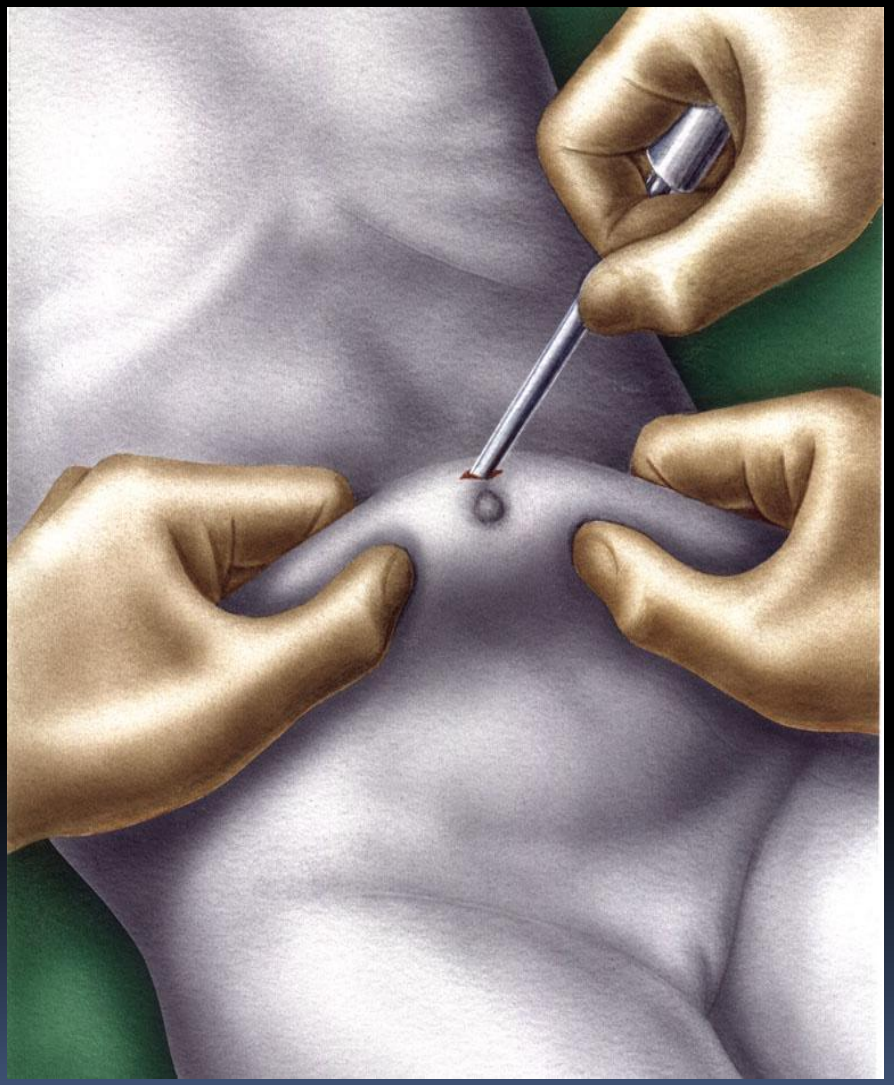


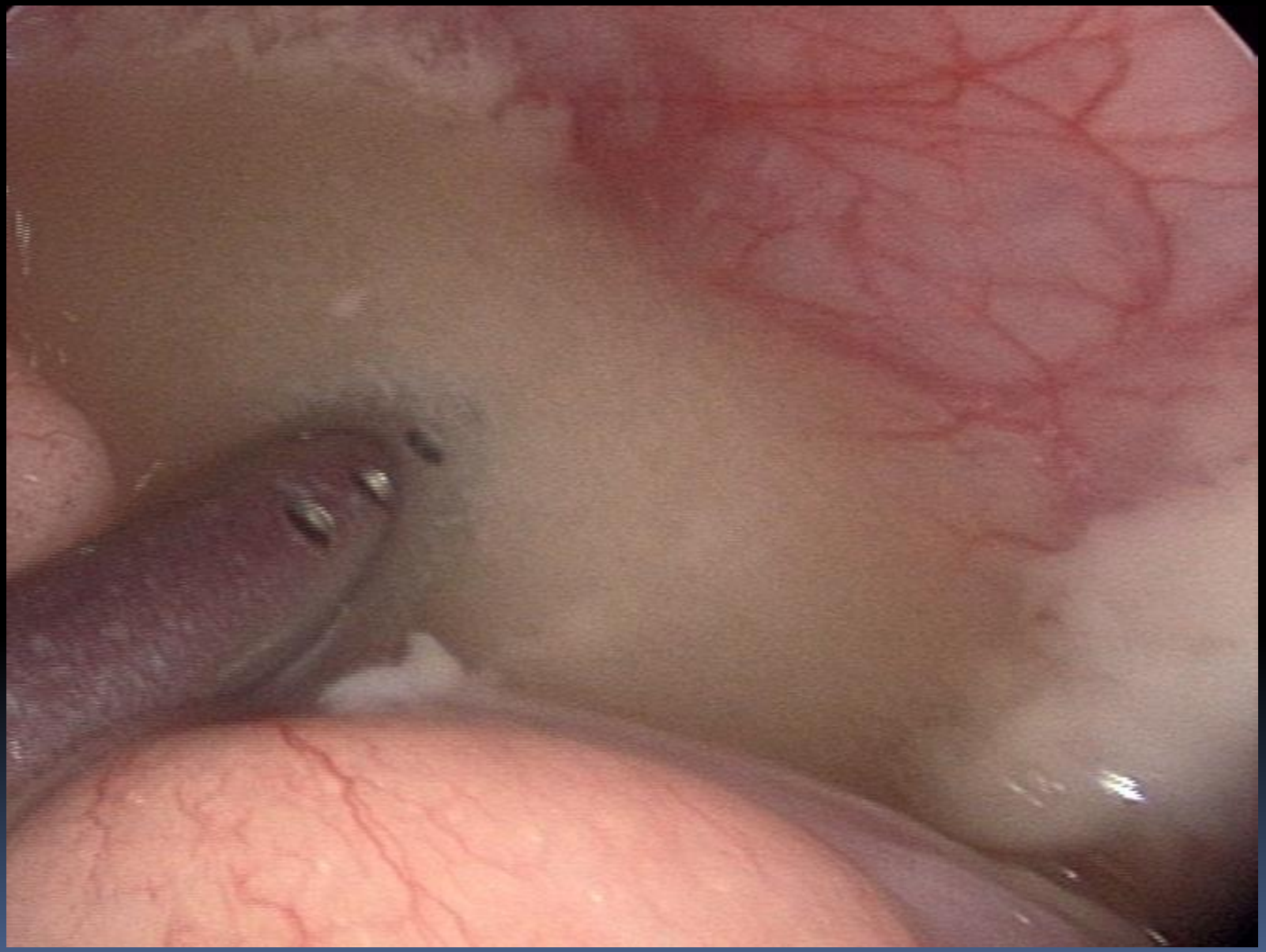
Laparoscopic treatment

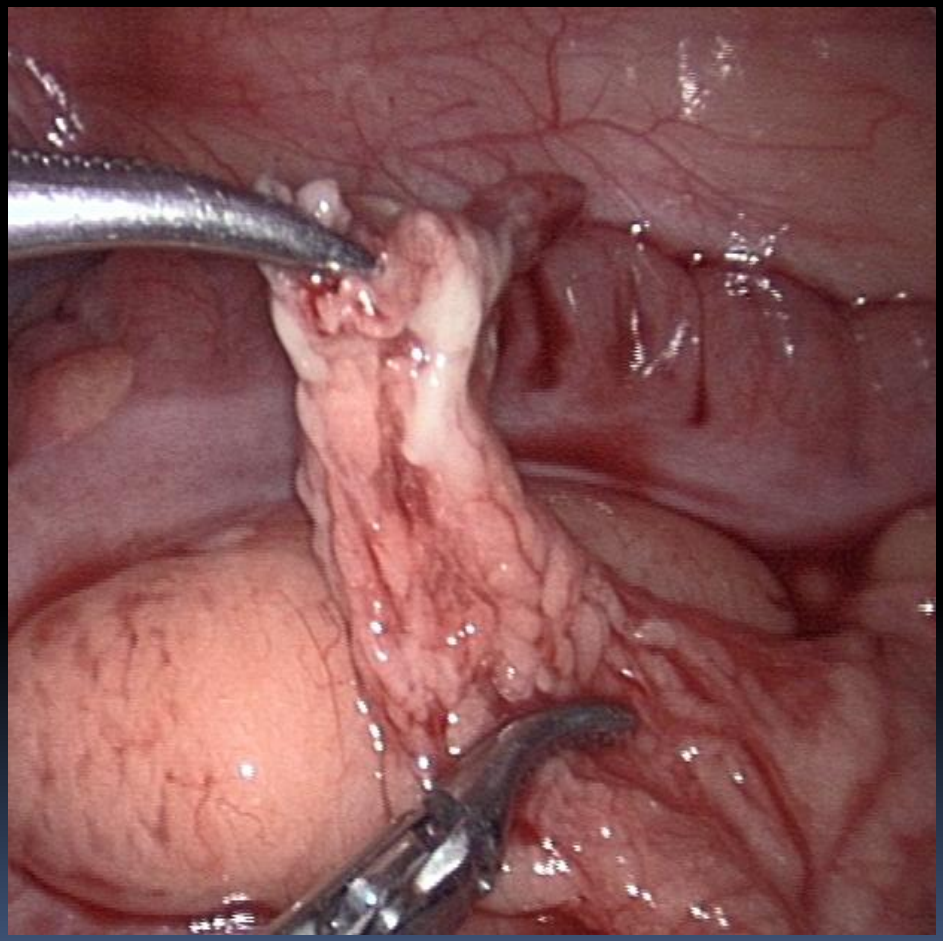


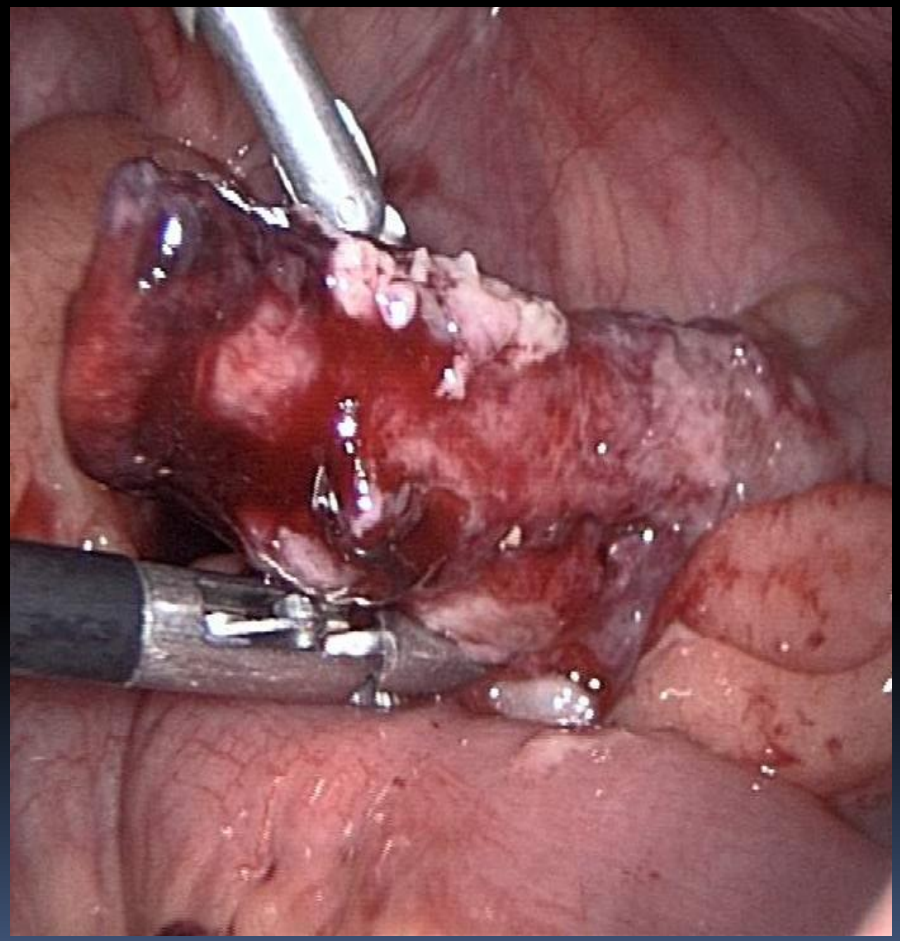


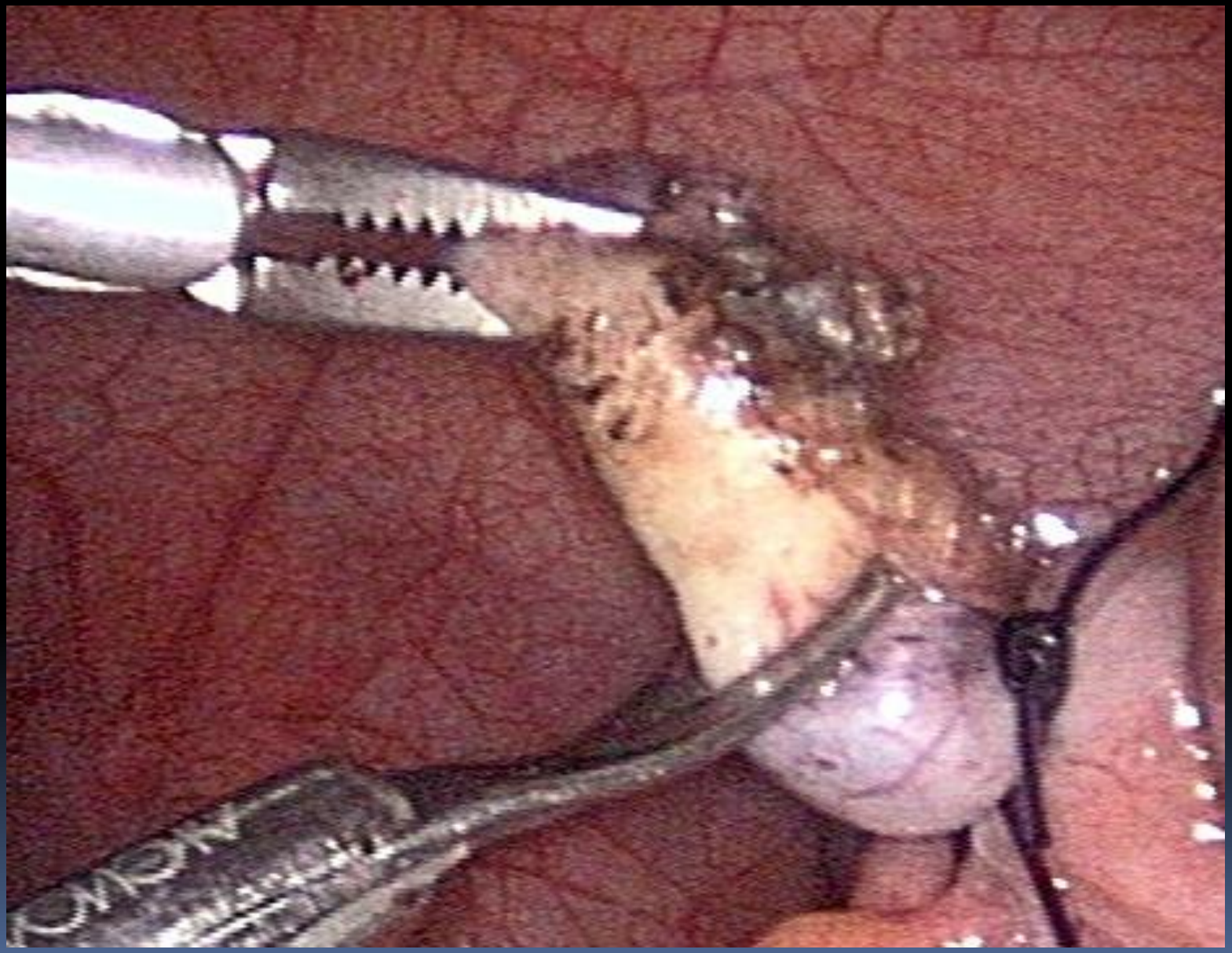


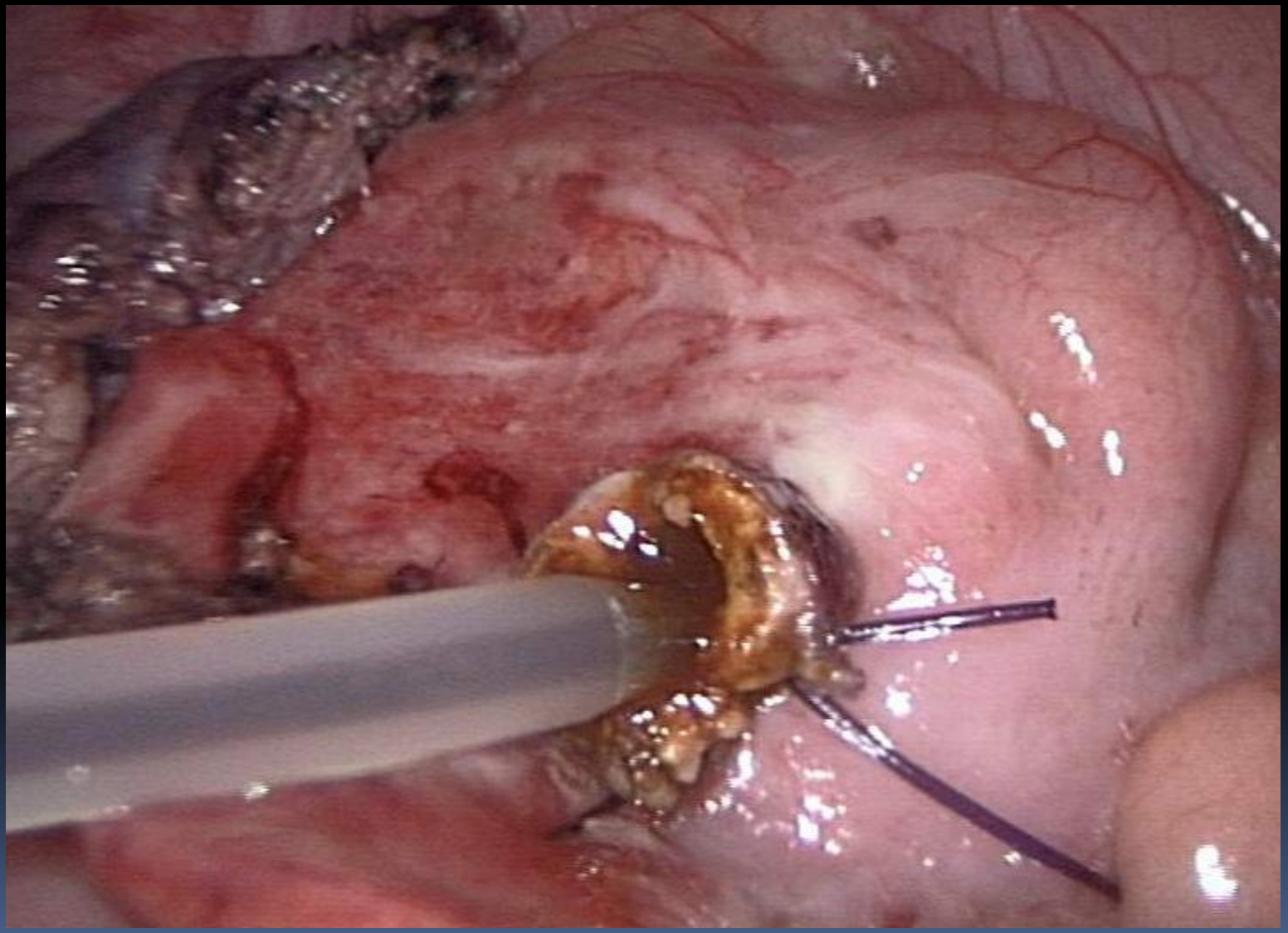




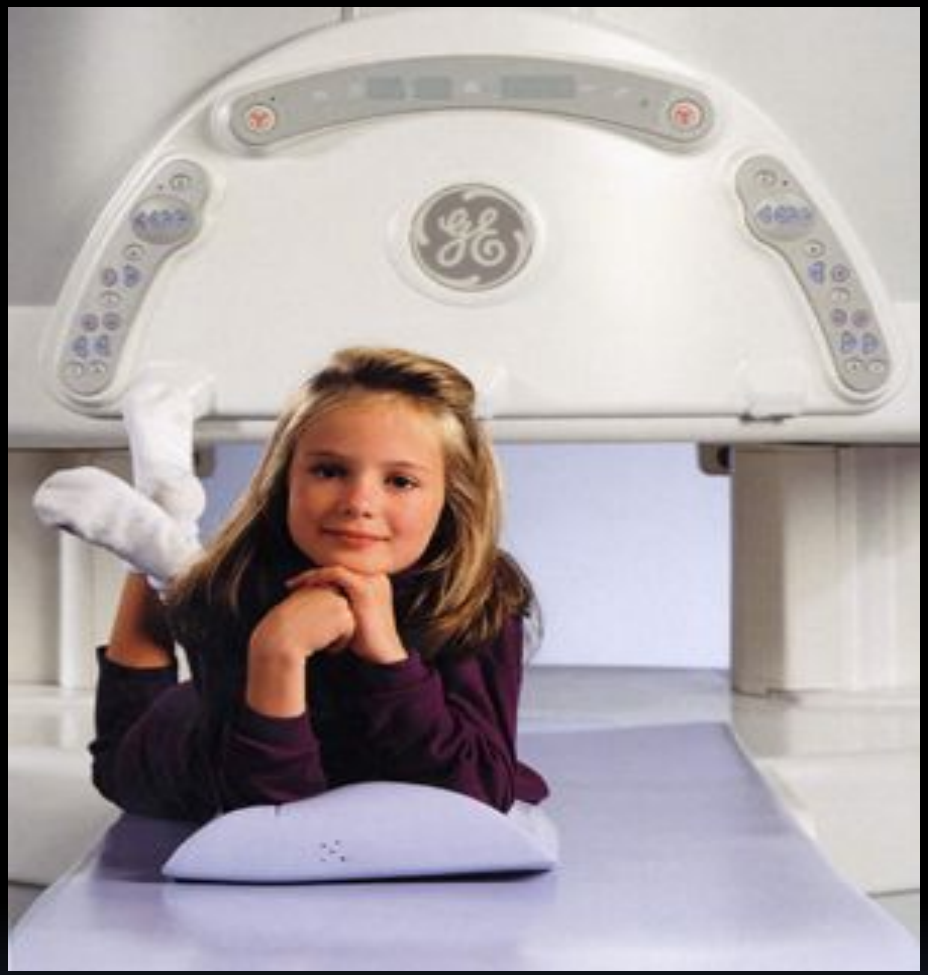








Advances in peri-operative care and antibiotics have
resulted in a zero mortality rate and low morbidity in
children with appendicitis. The long-term outcome
of the vast majority of patients who undergo appendectomy
in childhood is very good.



Thank you for attention!