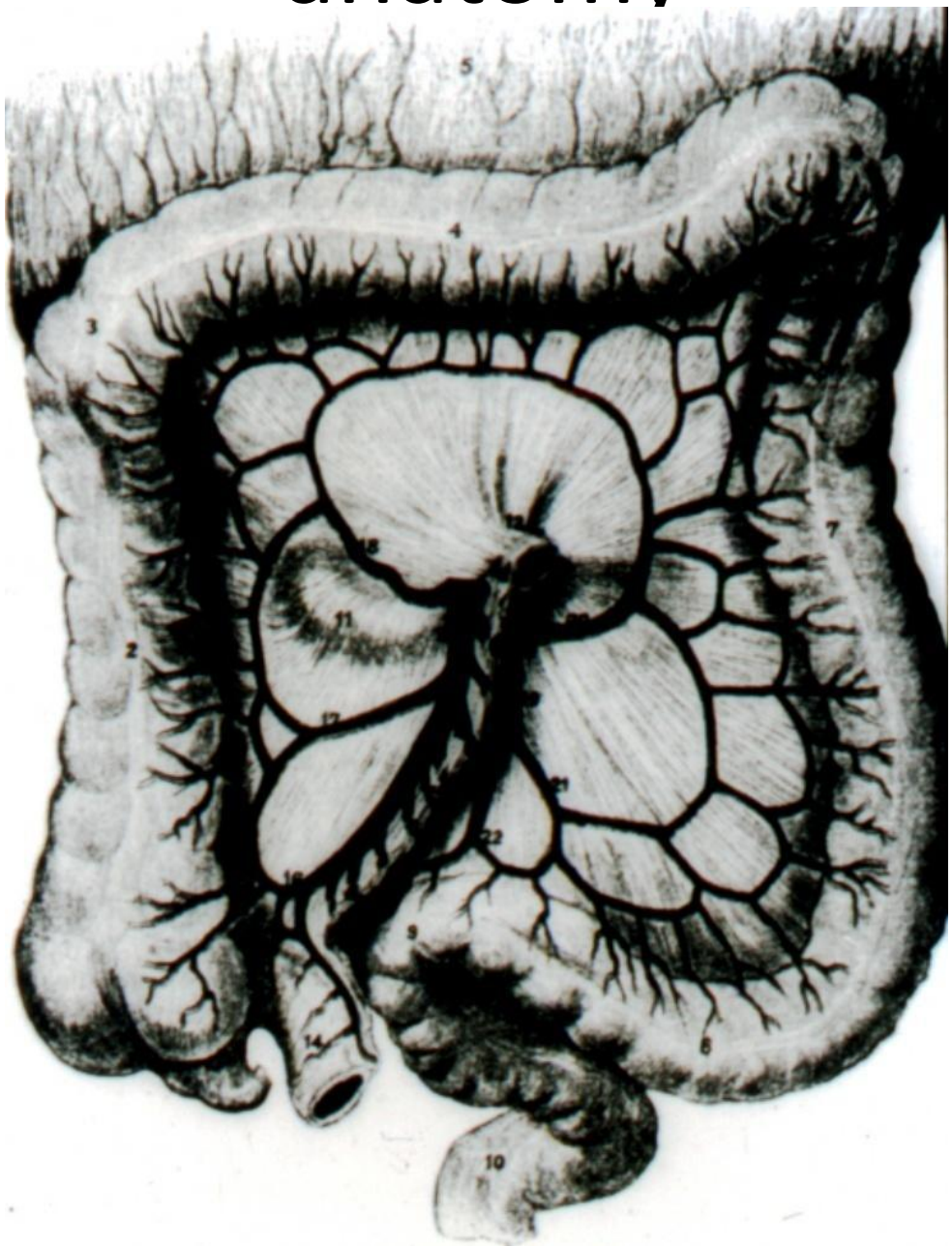
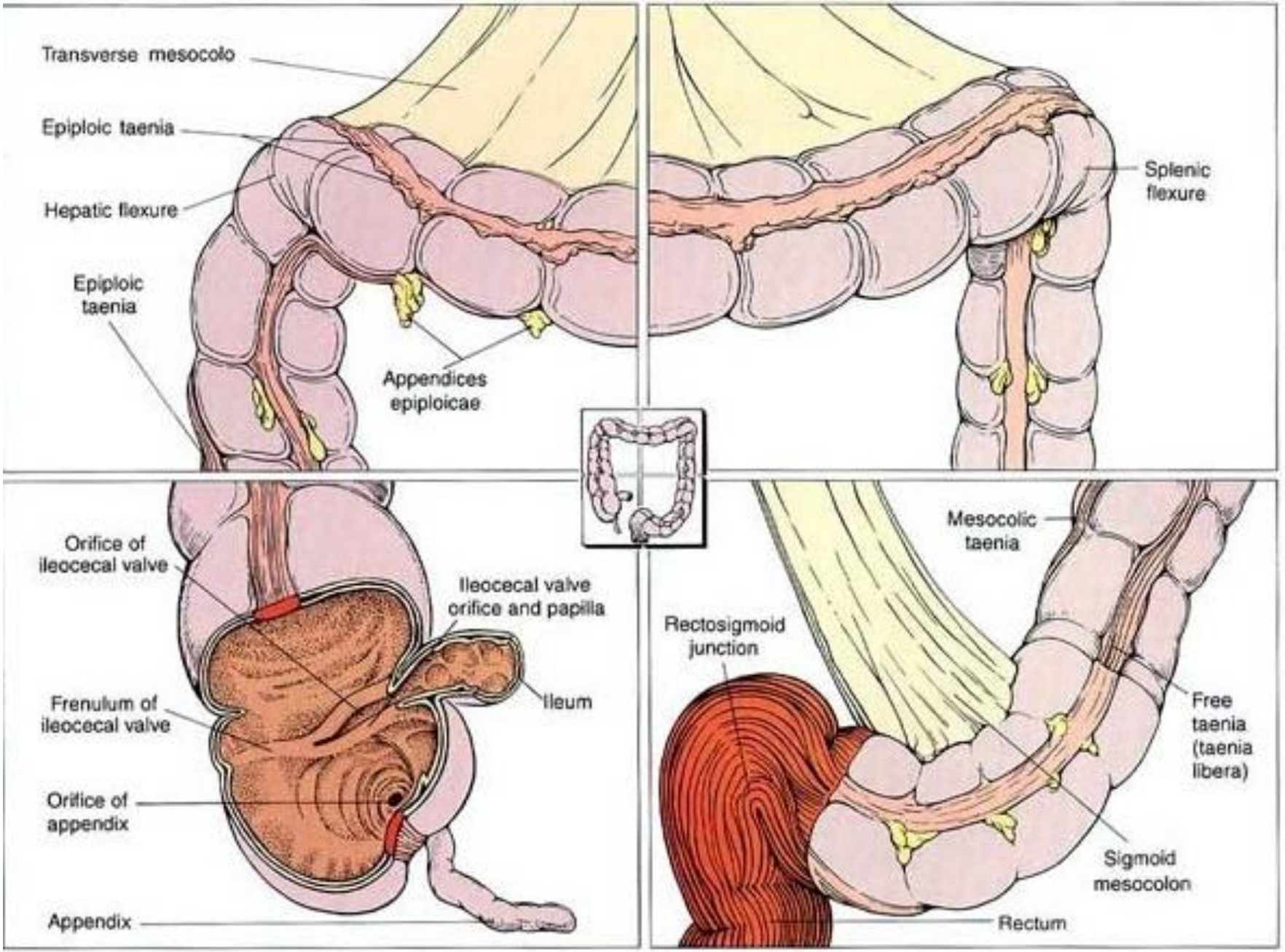
Colon diseases

professor
Youry Vladimirovitch
Plotnicov

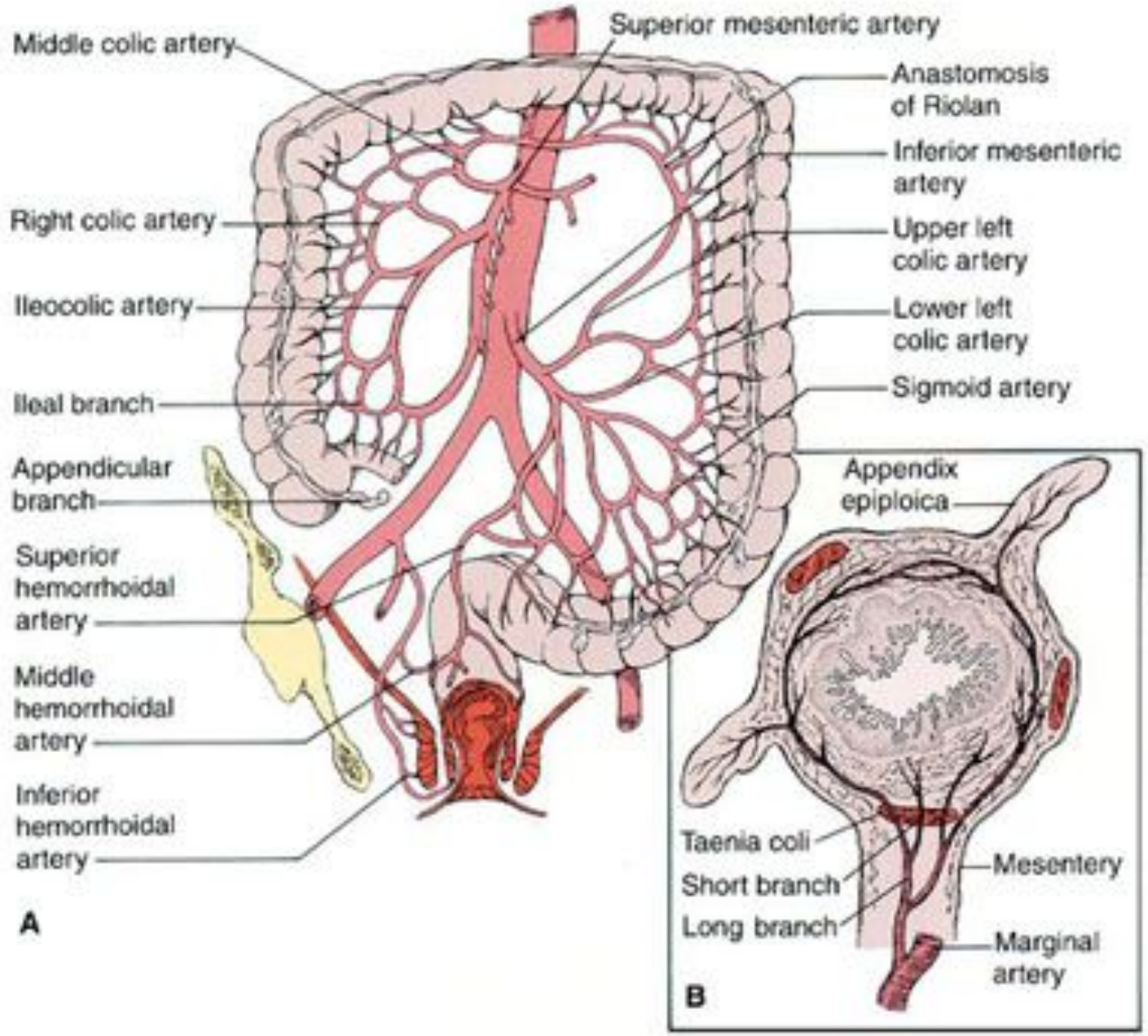
anatomy



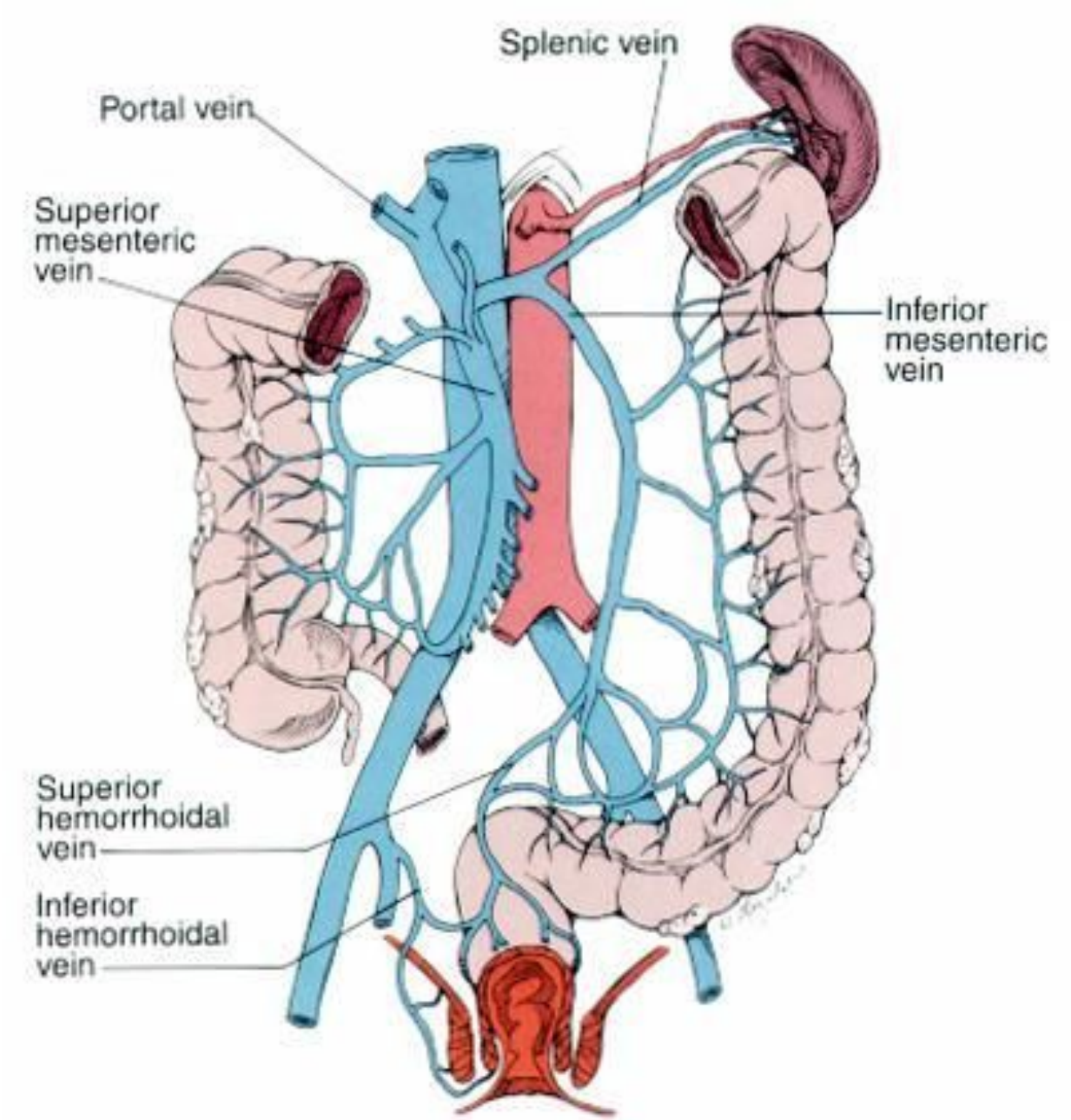
anatomy


Transverse mesocolo
Epiploic taenia
Hepatic flexure
Epiploic taenia
Appendices epiploicae
Splenic flexure
Orifice of ileocecal valve
Ileocecal valve orifice and papilla
Frenulum of ileocecal valve
Ileum
Orifice of appendix
Appendix
Mesocolic taenia
Rectosigmoid junction
Free taenia (taenia libera)
Sigmoid mesocolon
Rectum

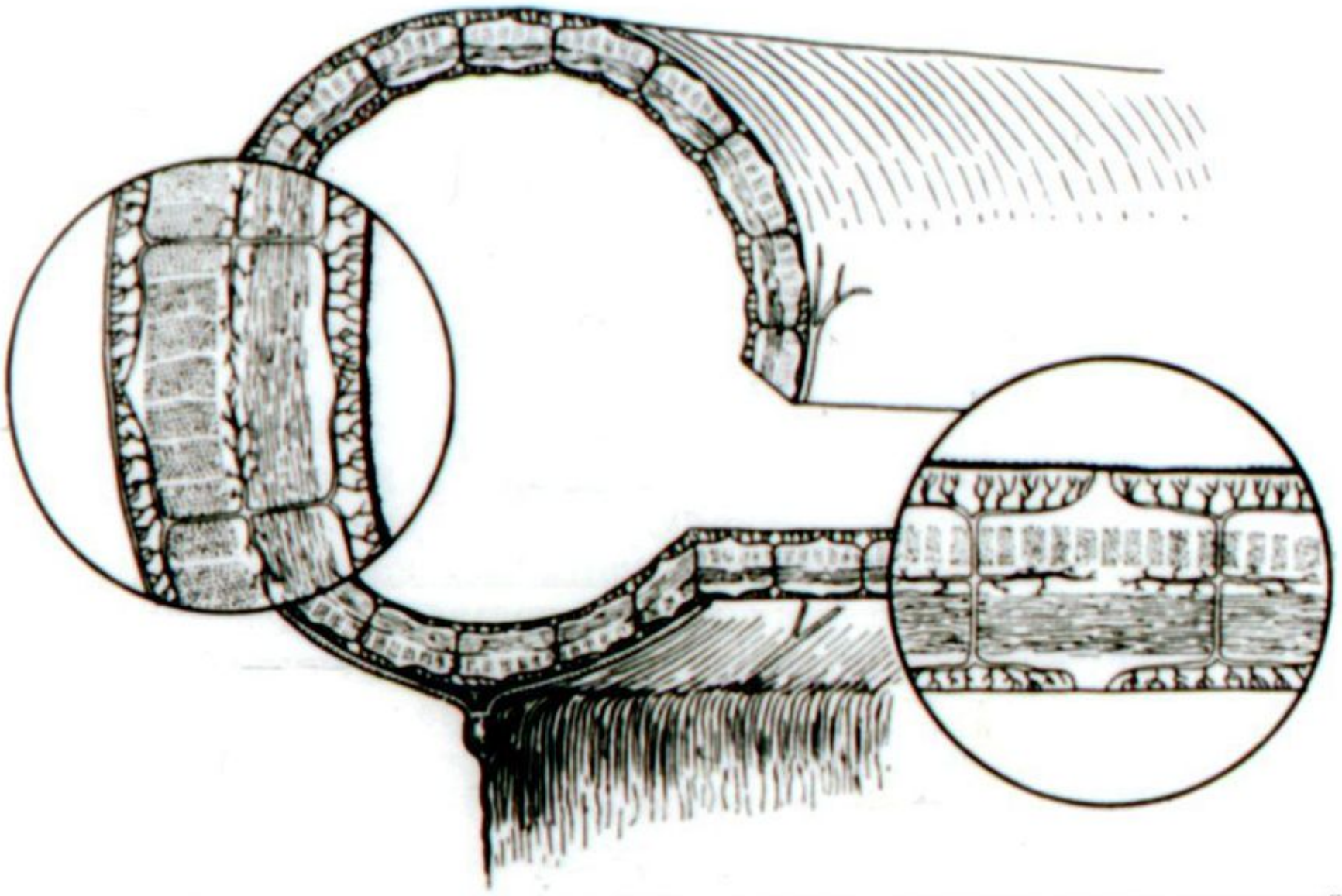
Arterial blood supply



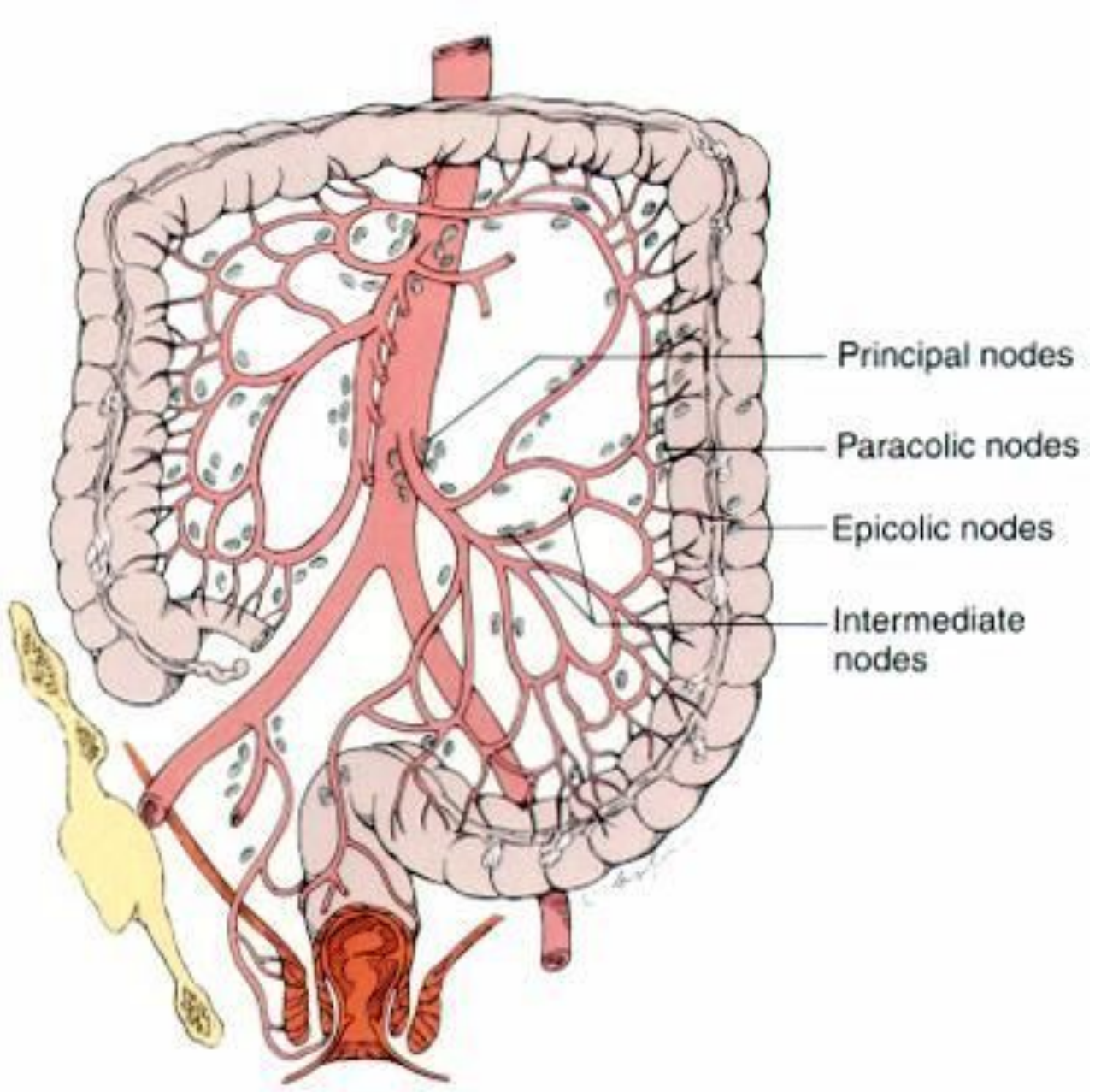
Venouse outflow



Intraparietal lymphatic vessels



Lymphatic drainage



Differences of the right and left half

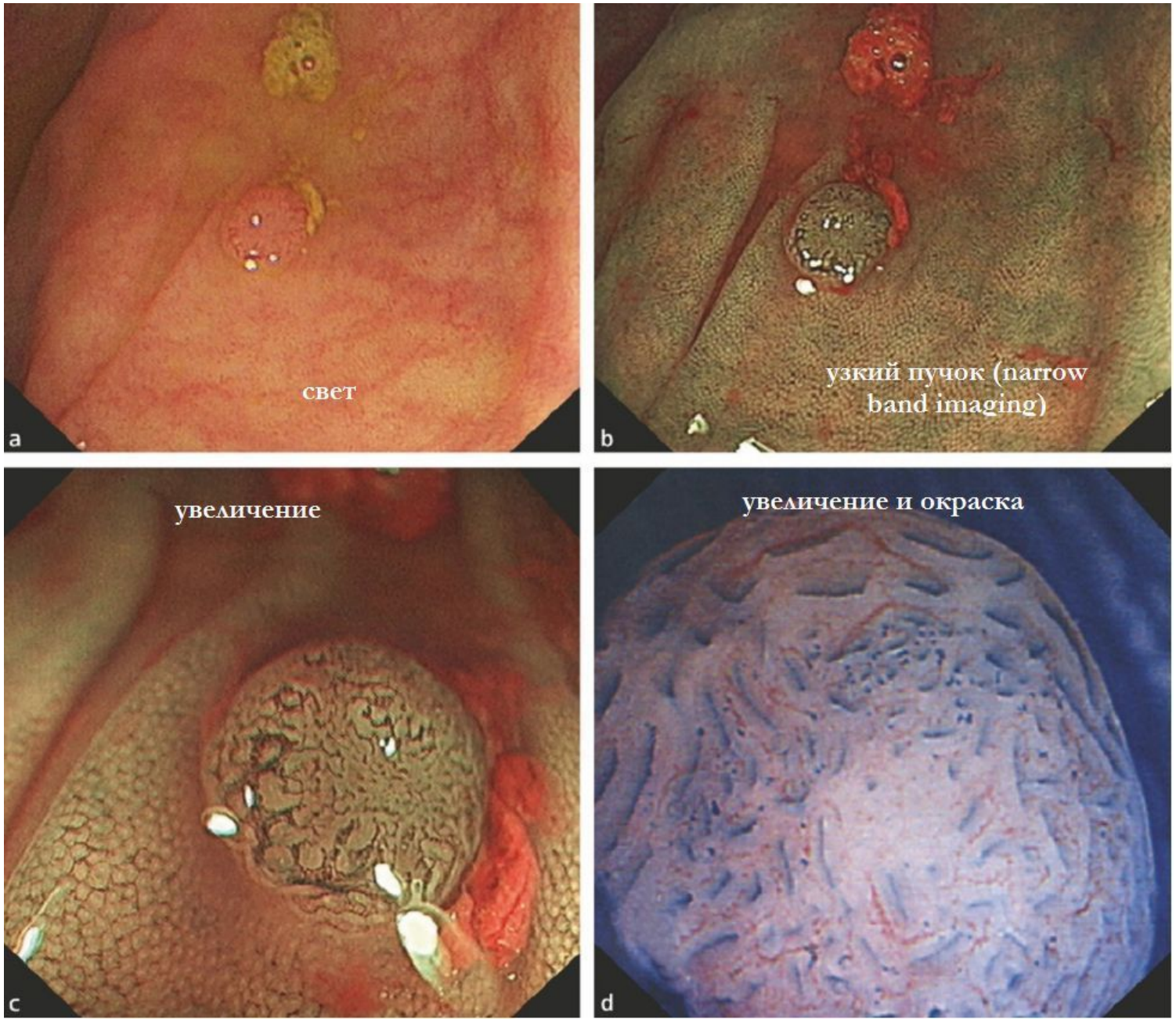
- Anatomy: on the right the lumen is wider, than at the left (except for the ileocecal valve)
- Contention on the right is liquid, at the left dense
- Tumours on the right is more often exophytic, at the left endophytic
- Exophytic tumours destroyed with a bleeding more often

Special investigation methods

1. Physical investiga-tion
2. A proctosigmoido-scopy
3. Fibrocolonoscopy

Colonoscopy - an initial cancer

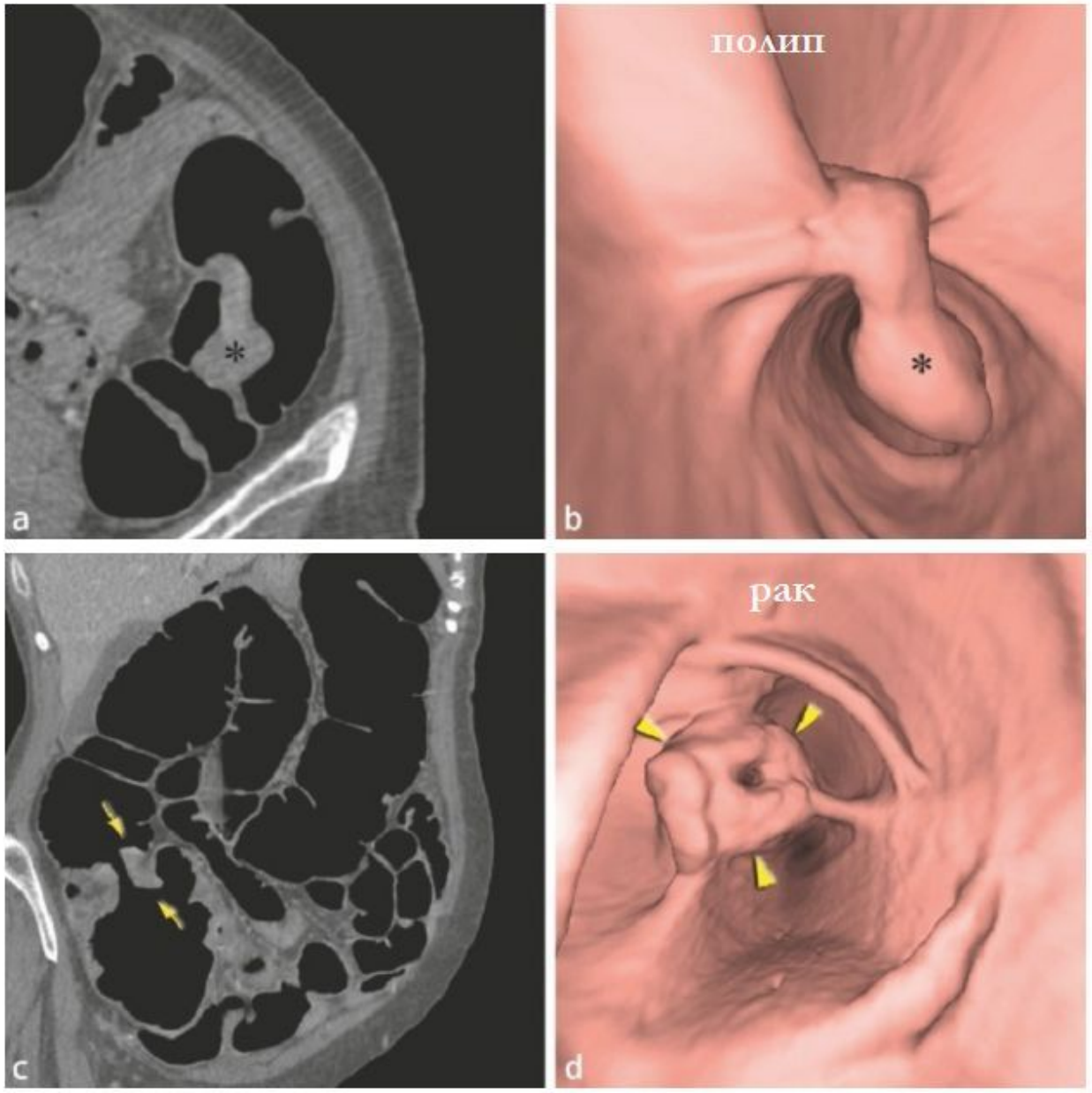
Modern colonoscopy



Special investigation methods

4. irrigoscopy (including virtu-al)
5. abdominal cavity US
6. radial methods (CT, PET, etc.)
7. laparoscopy
8. intravenous urography
9. reactions to an occult blood
10. cancer markers

Virtual colonoscopy



At what a cancer localization more often

anemy?

At what a cancer localization more often

Visible bleeding?

AT WHAT A CANCER LOCALIZATION MORE OFTEN

Disturbance of passability

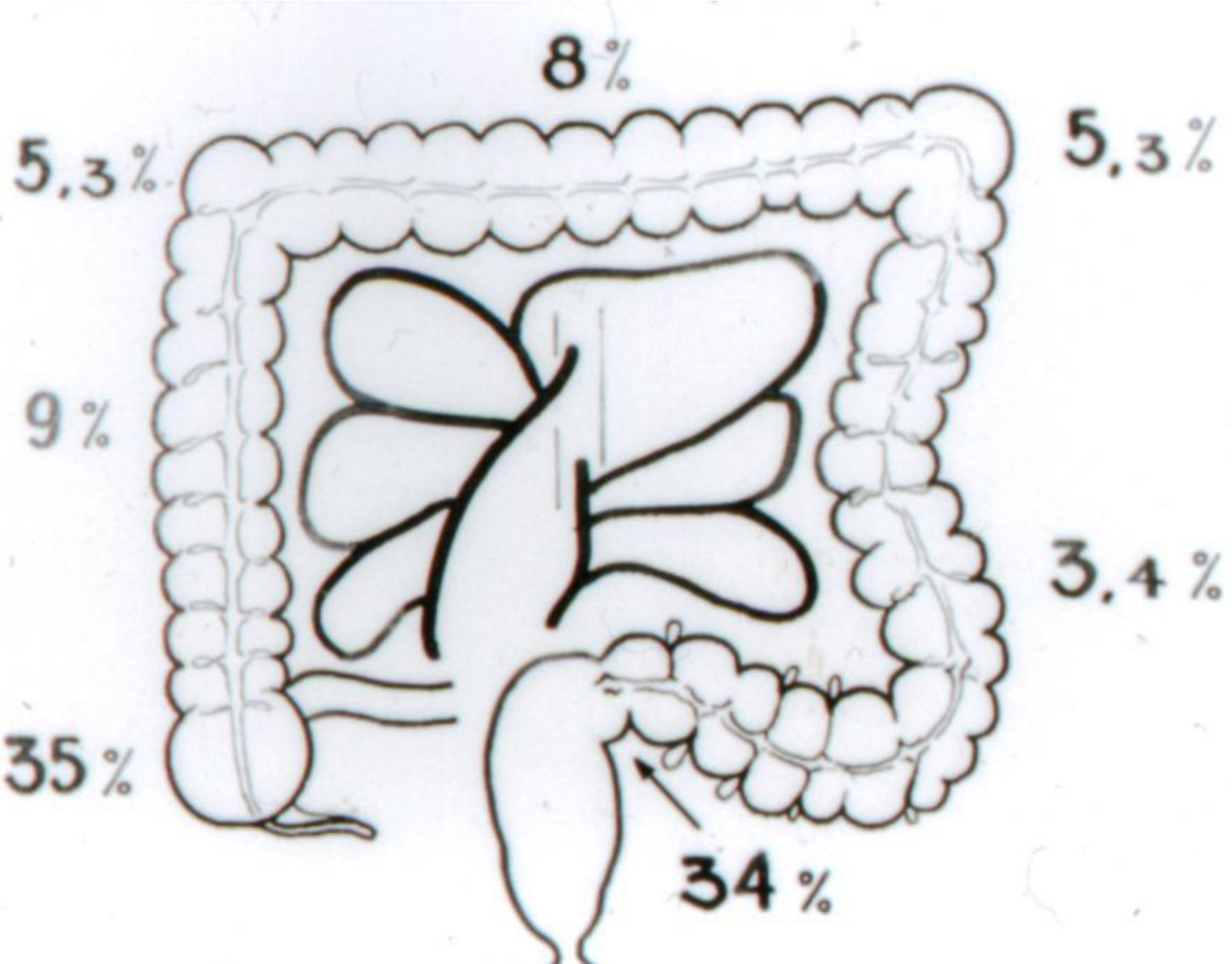
AT WHAT A CANCER LOCALIZATION MORE OFTEN

Perforation is more possible?

AT WHAT A CANCER LOCALIZATION MORE OFTEN

Fistulas, phlegmons are possible?

Colon cancer localisation



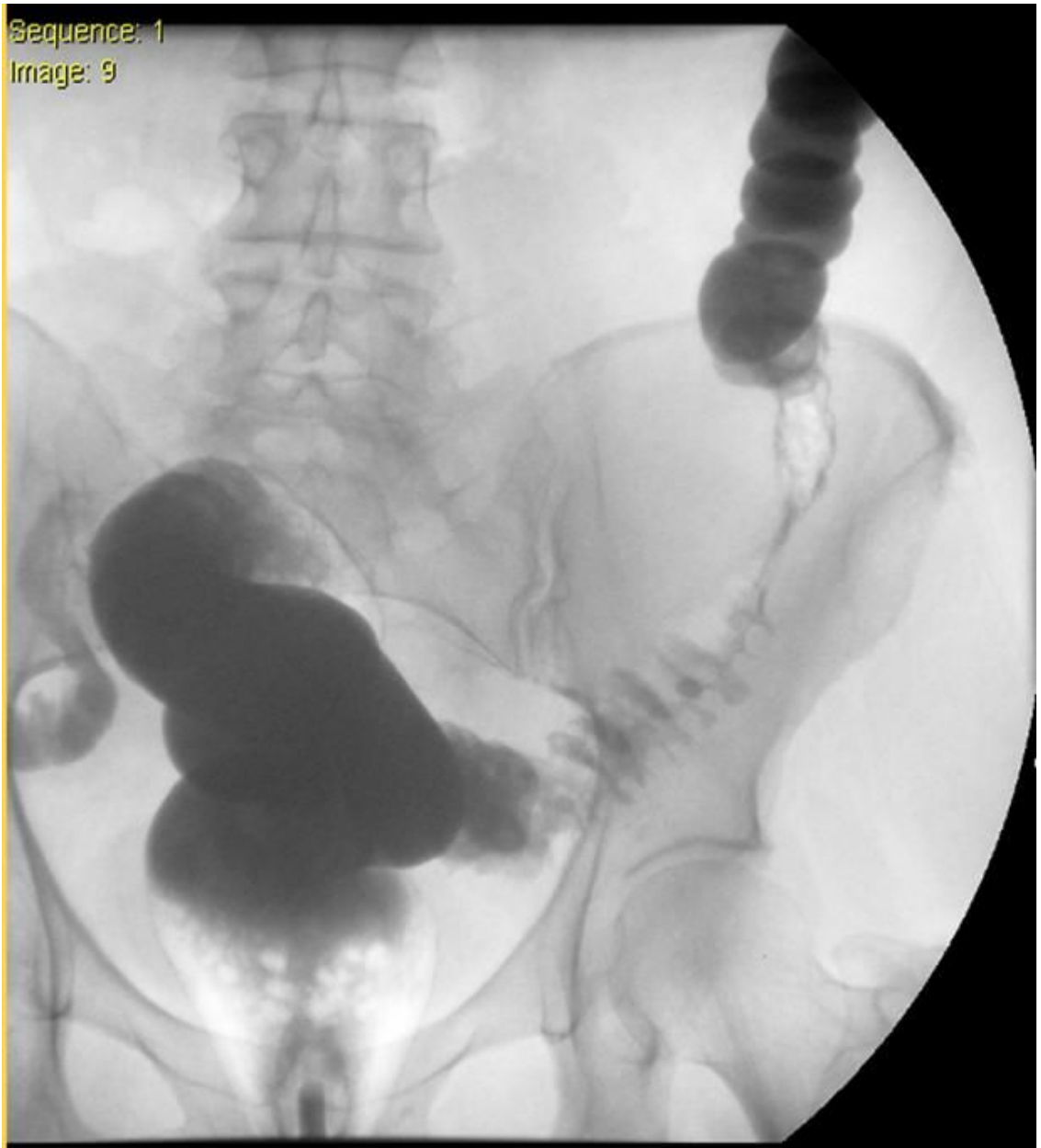
Cancer clinical signs

1. Functional signs without intestinal disorders (a pain, etc.)
2. Intestinal disorders (diarrheas, con-stipations, alternating)
3. Disturbances of intestinal passabi-lity
4. Pathological discharge
5. Disturbance of the general conditi-on of patients
6. Palpating detection of a tumour

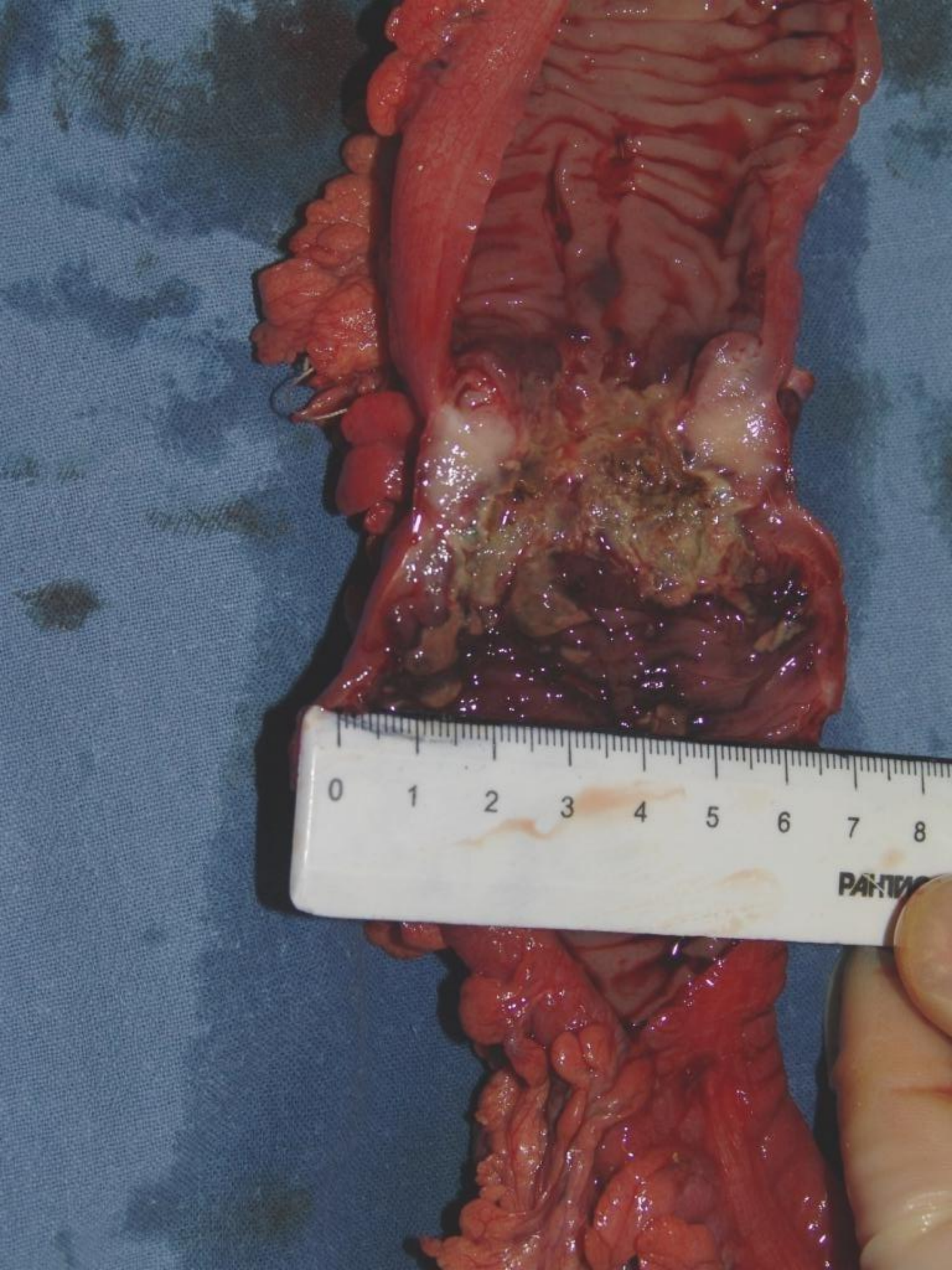
Cancer clinical forms

1) toxico-anemic
2) enterocolitic
3) dyspeptic
4) obturational
5) pseudo-inflammatory
6) tumoral

Colon cancer diagnosis



Colon cancer diagnosis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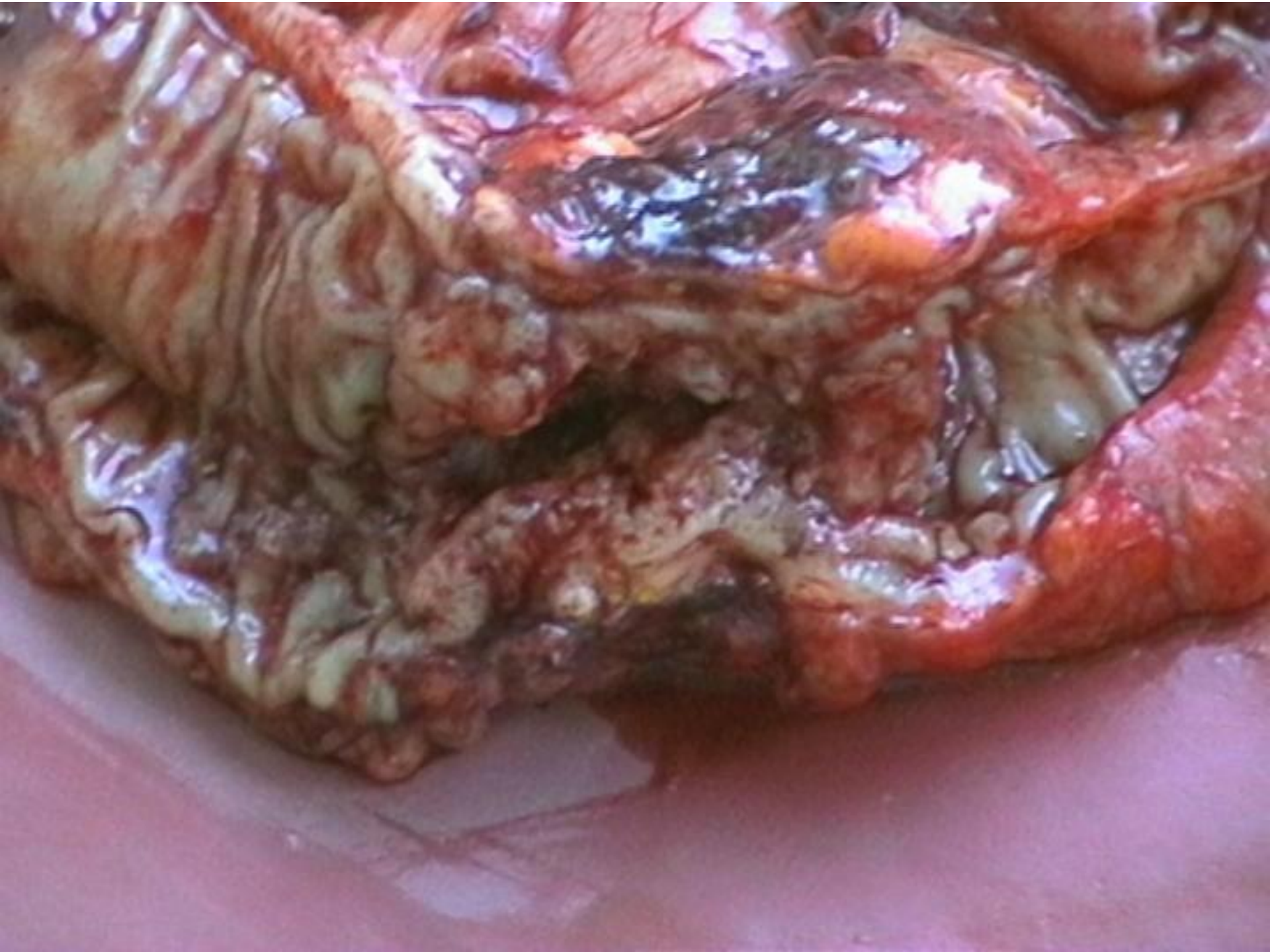
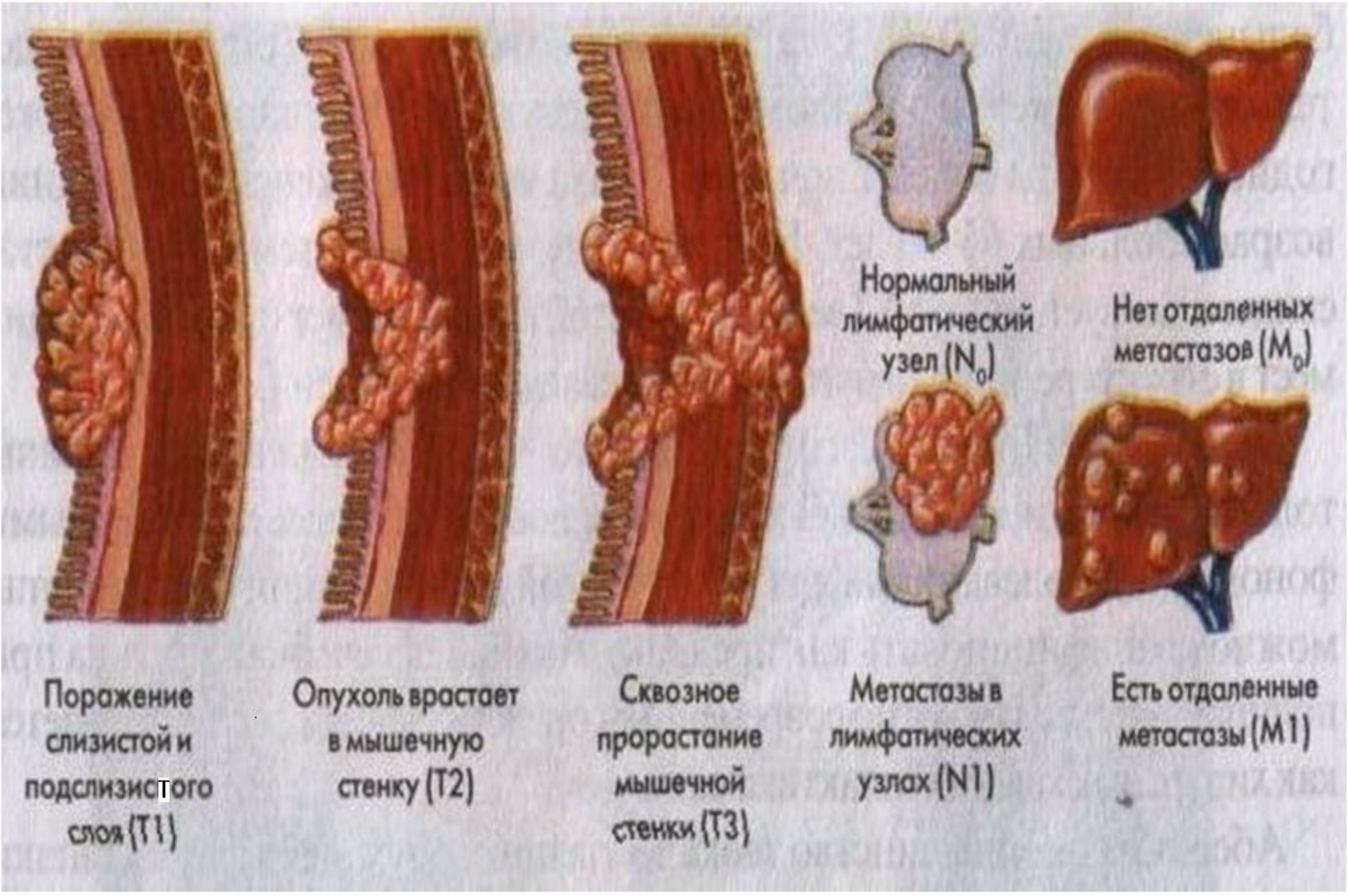


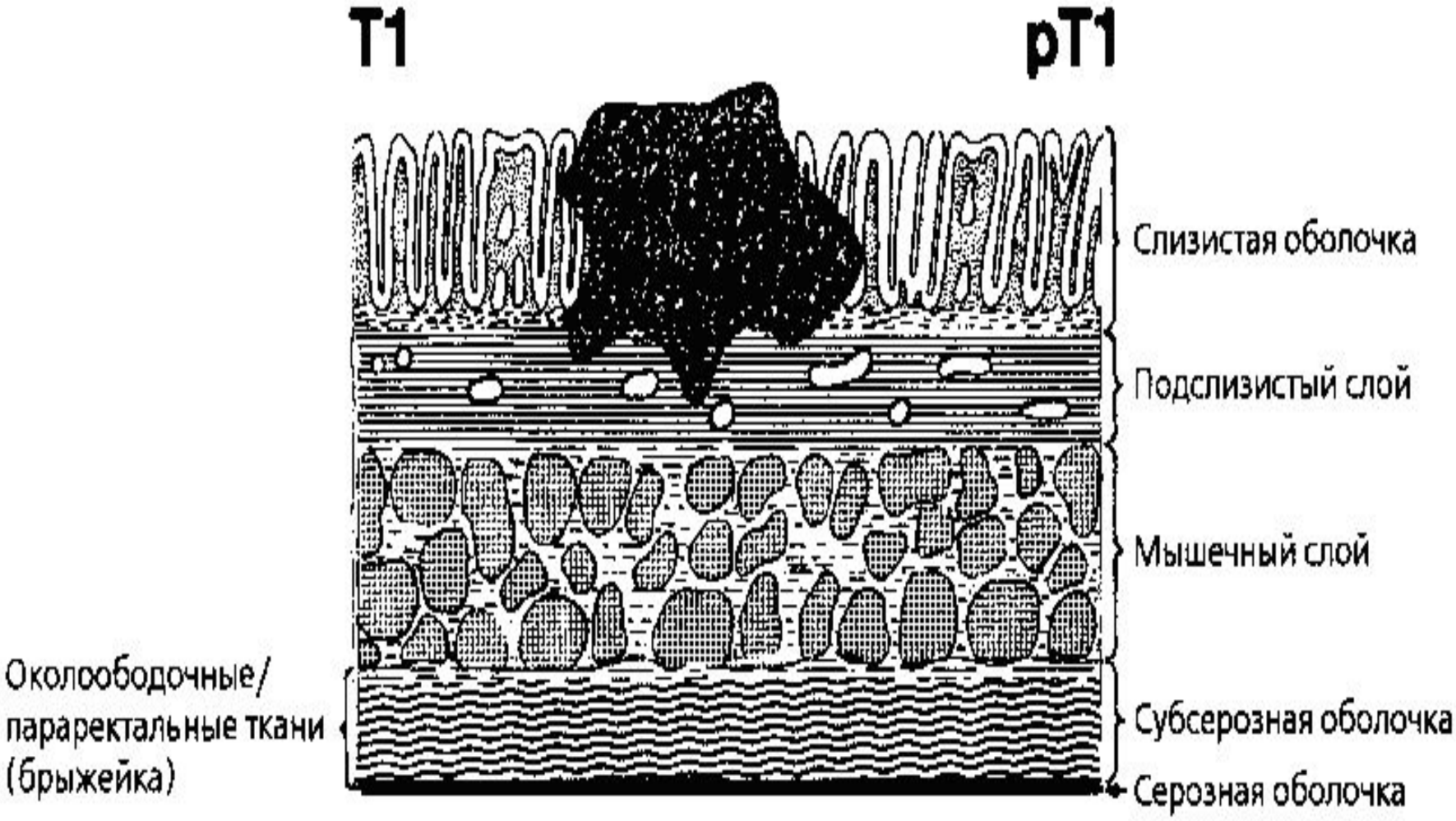
TNM


Поражение слизистой и подслизистого слоя (T1)
Опухоль врастает в мышечную стенку (T2)
Сквозное прорастание мышечной стенки (T3)
Нормальный лимфатический узел (N_0)
Метастазы в лимфатических узлах (N1)
Нет отдаленных метастазов (M_0)
Есть отдаленные метастазы (M1)

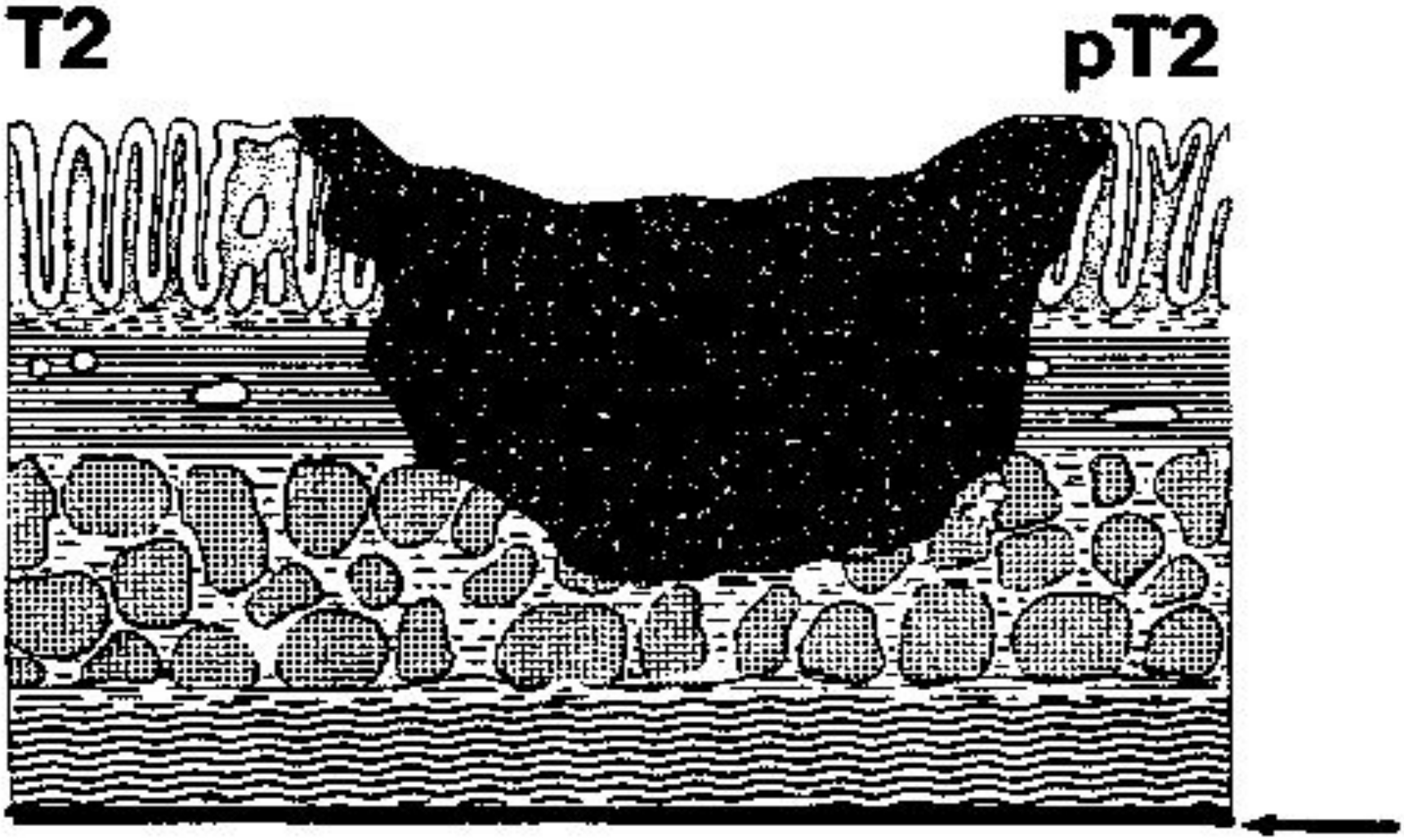
TNM - T

- **Tx - the estimation of a primary tumour is impossible**
- **T0 - the primary tumour is not found out**
- **Tis - a cancer in situ: cancer cells find out within the limits of a basal membrane of glands or in own plate of a mucous membrane**

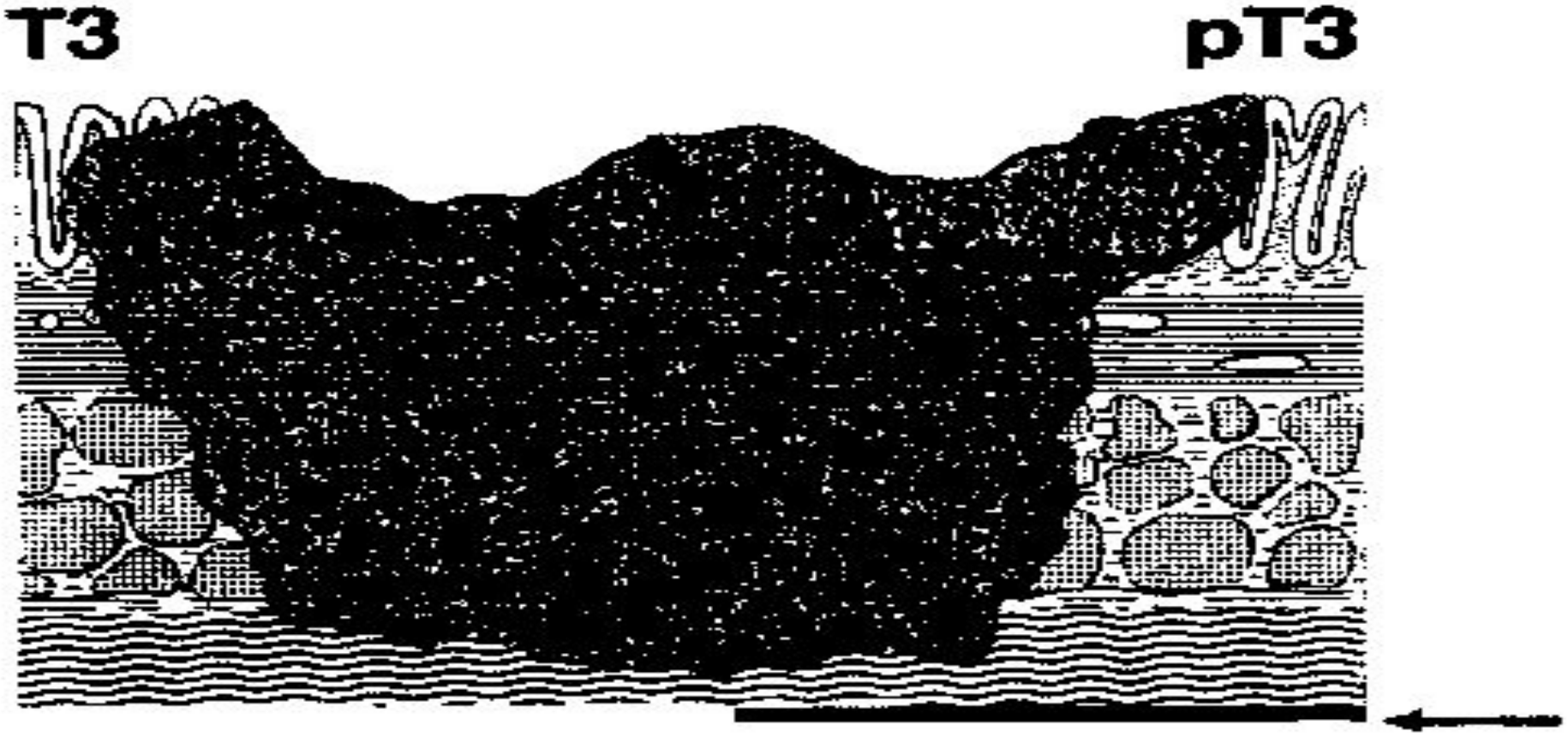
T1 – The tumour amazes a submucouse layer



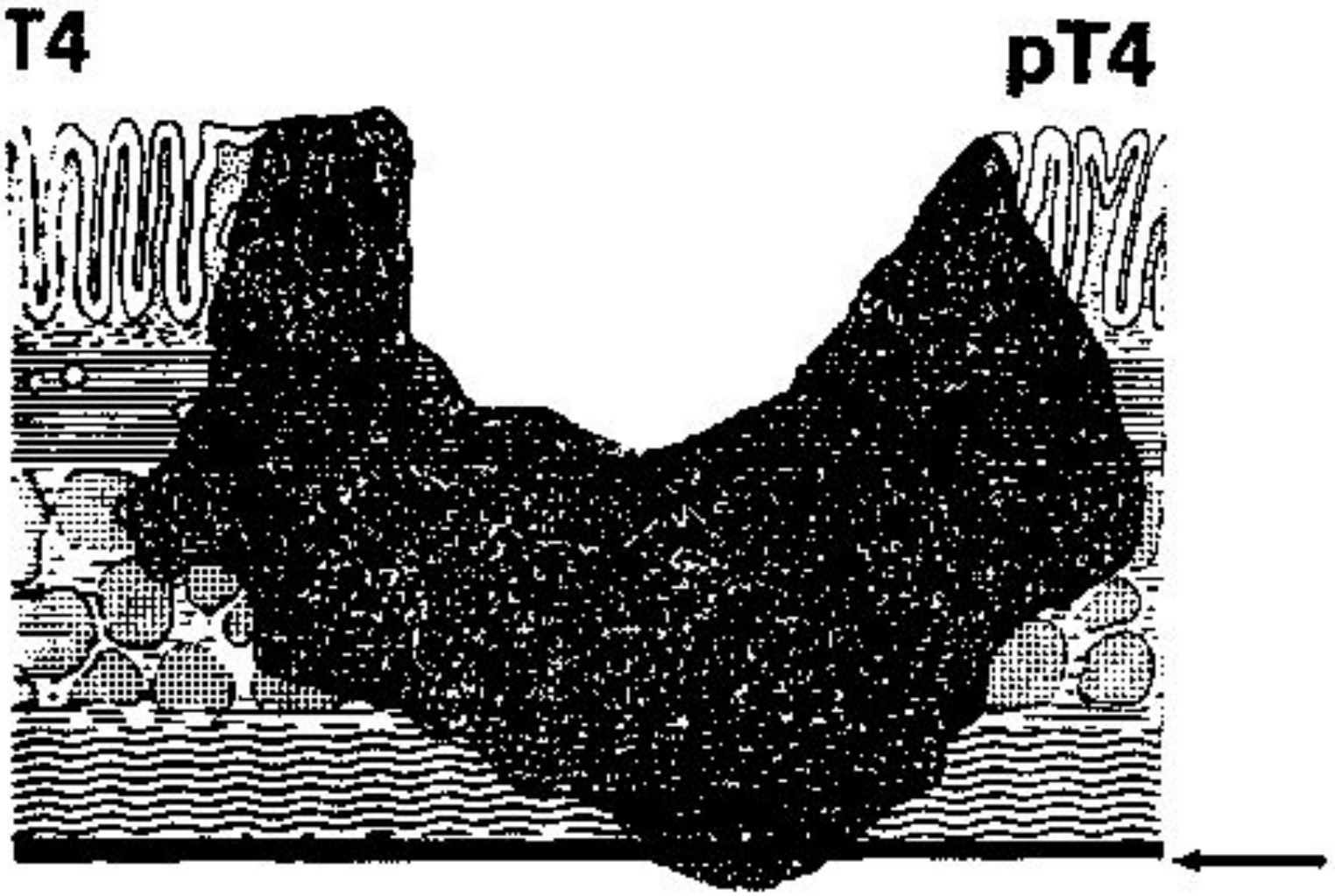
T2 - the tumour spreads into a muscular layer

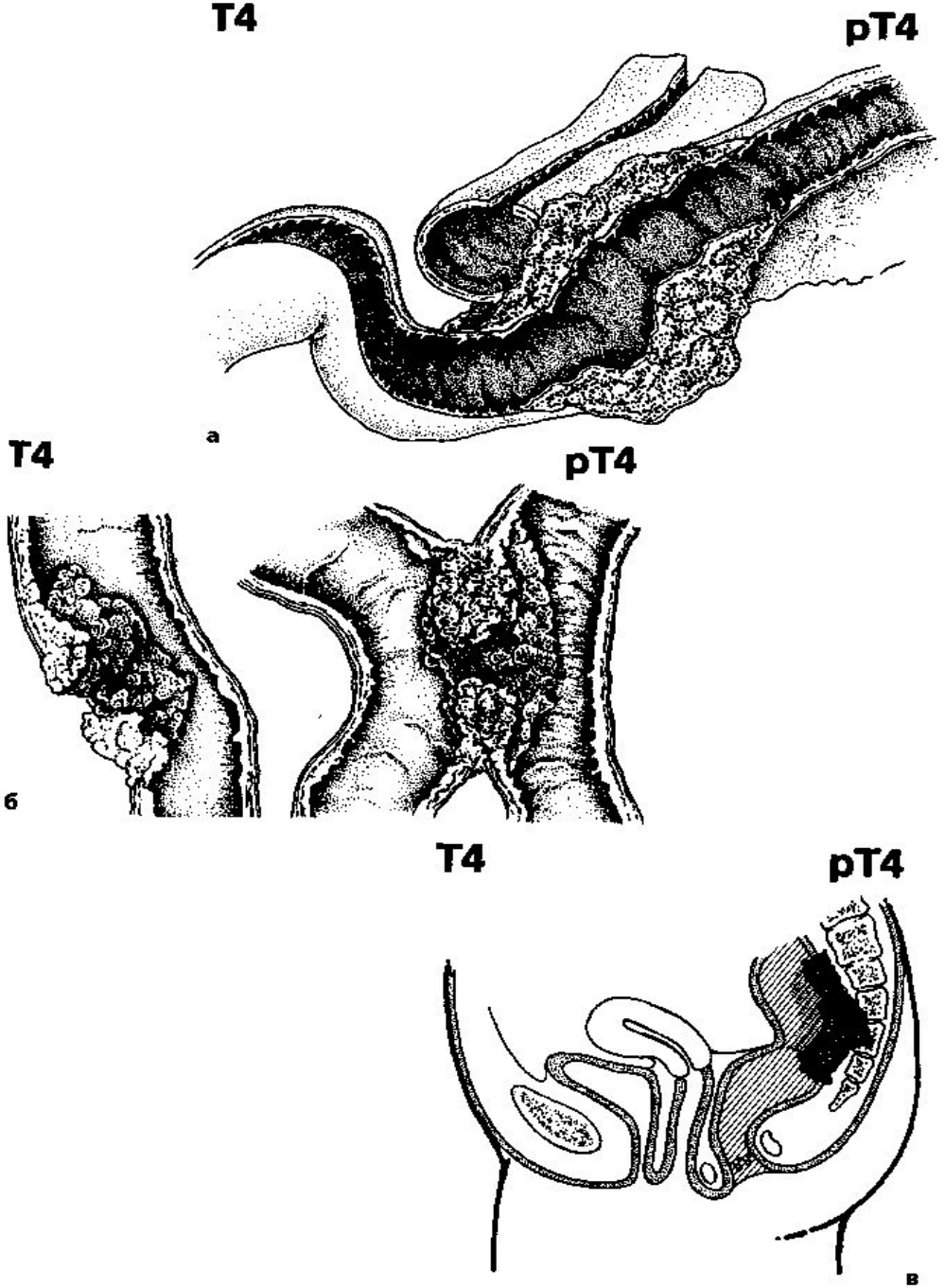


T3 - the tumour gets into a subserous layer or not covered by a paracolitis and pararectal peritoneum fat

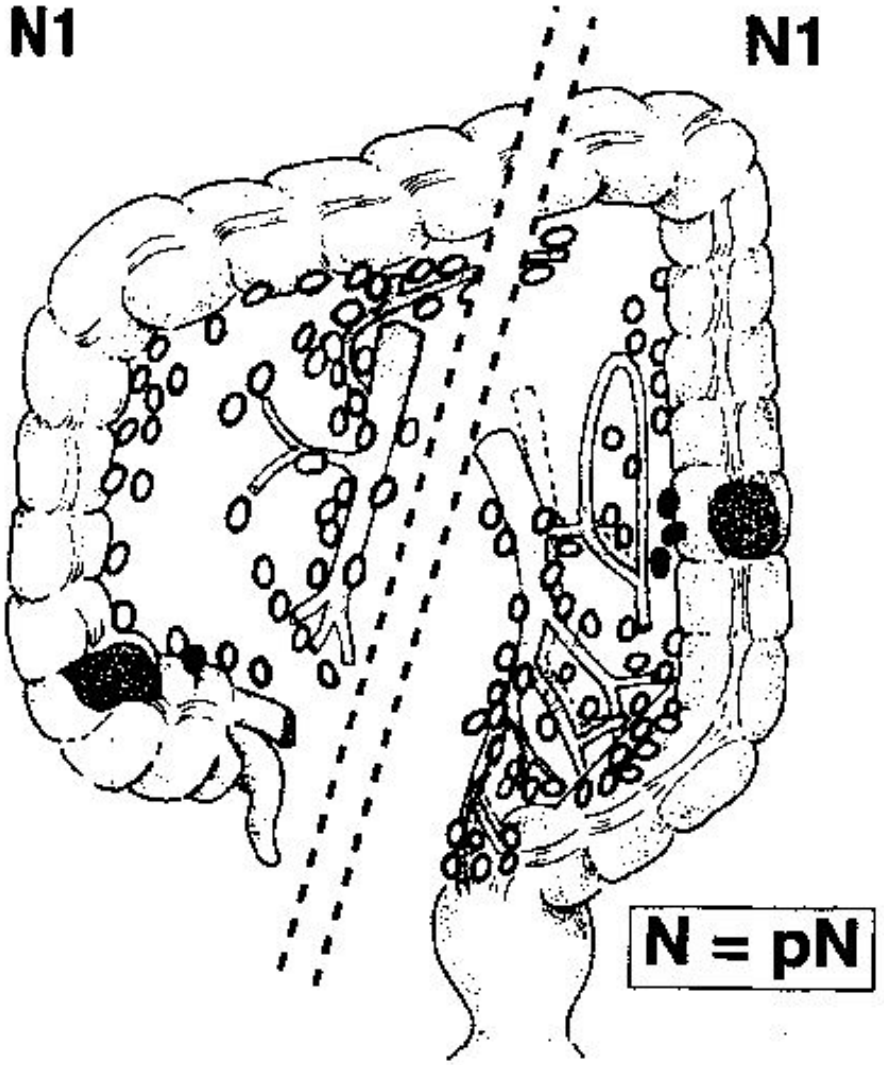


T4 - the tumour amazes the neighboring organs and tissues and/or spread through a visceral peritoneum

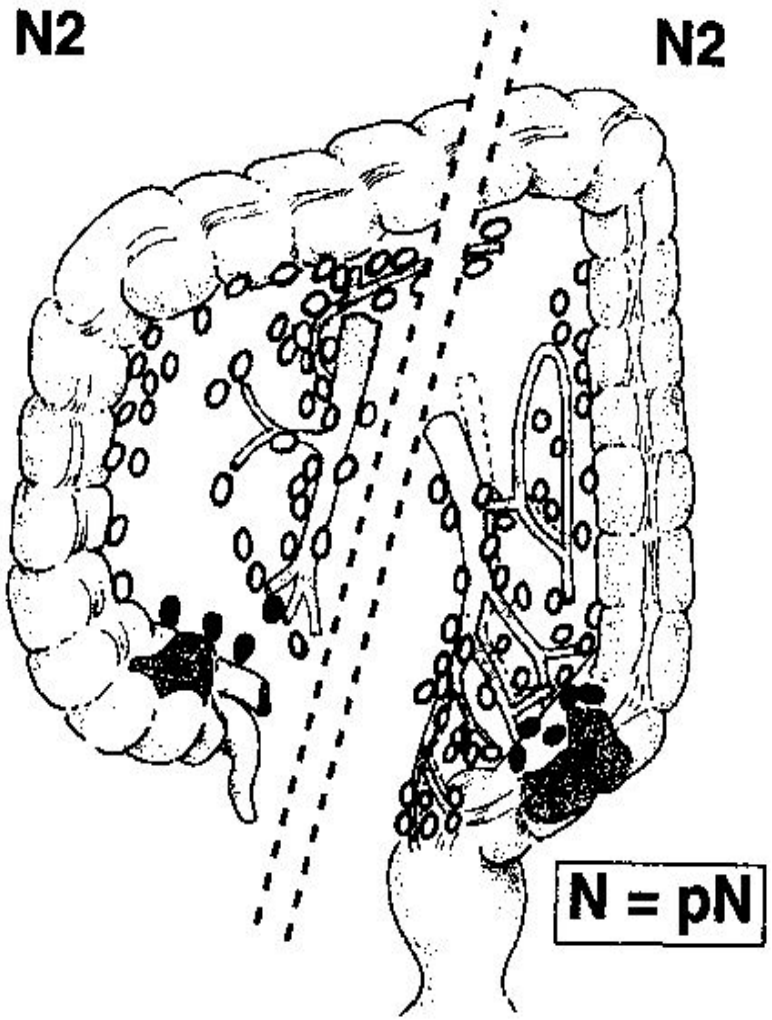


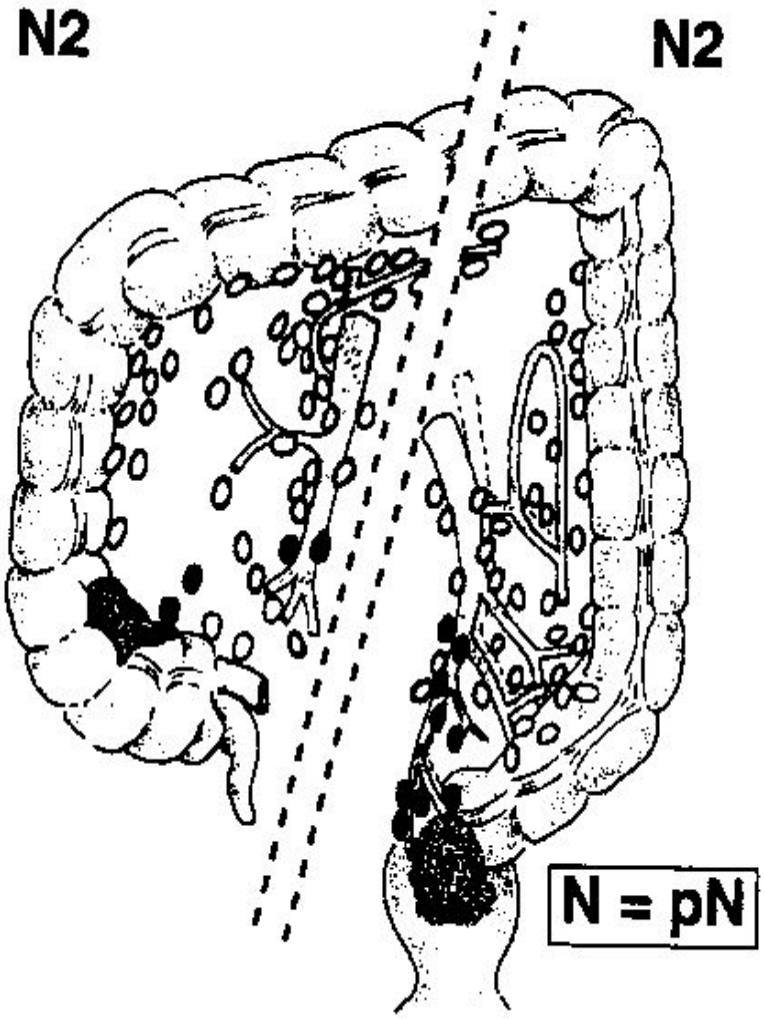

T4
pT4
а
T4
pT4
б
T4
pT4
в

N1 - it is amazed from 1 up to 3 regional lymphonoduses

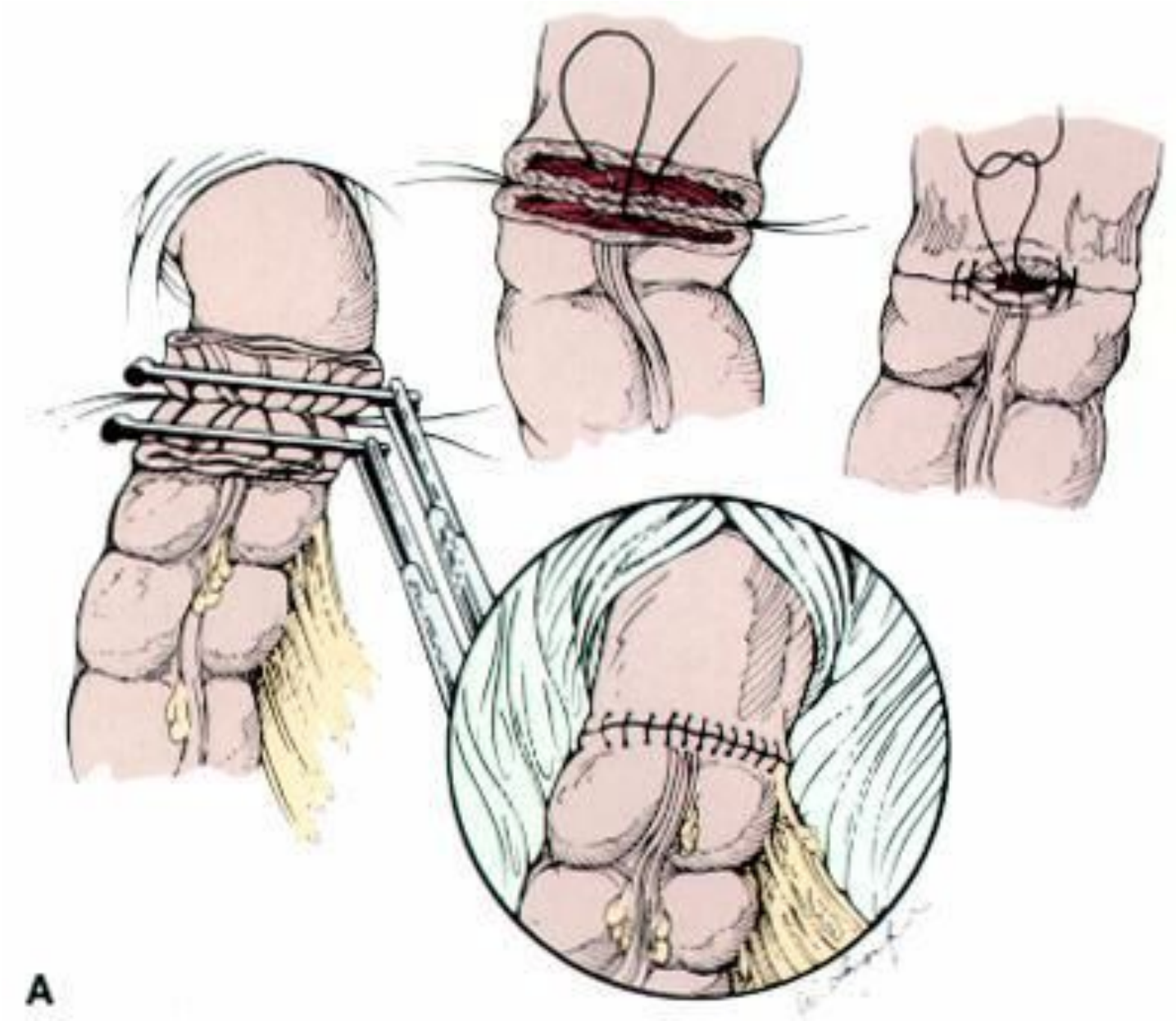


N2 - it is amazed 4 and more regional lymphonoduses

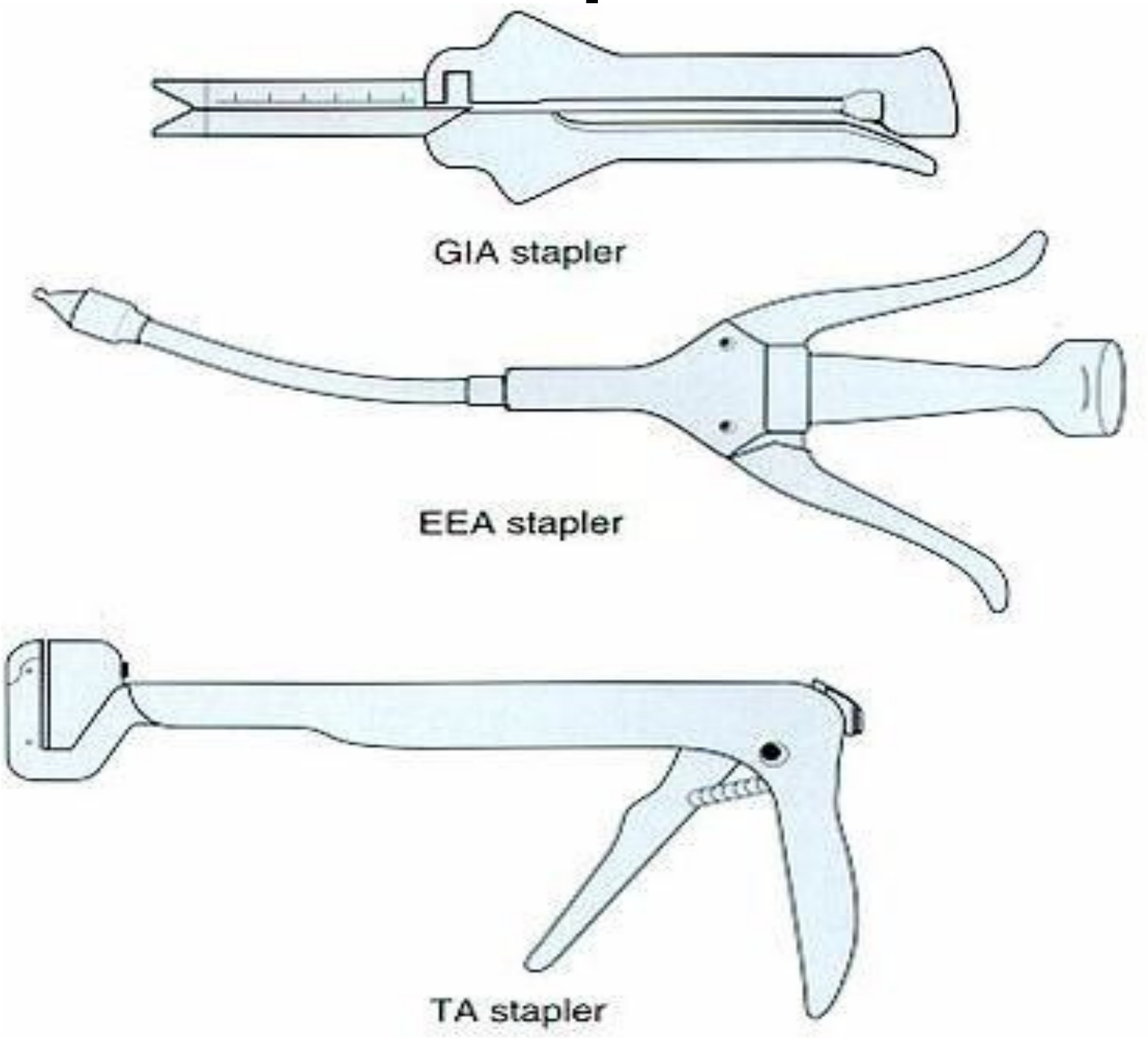




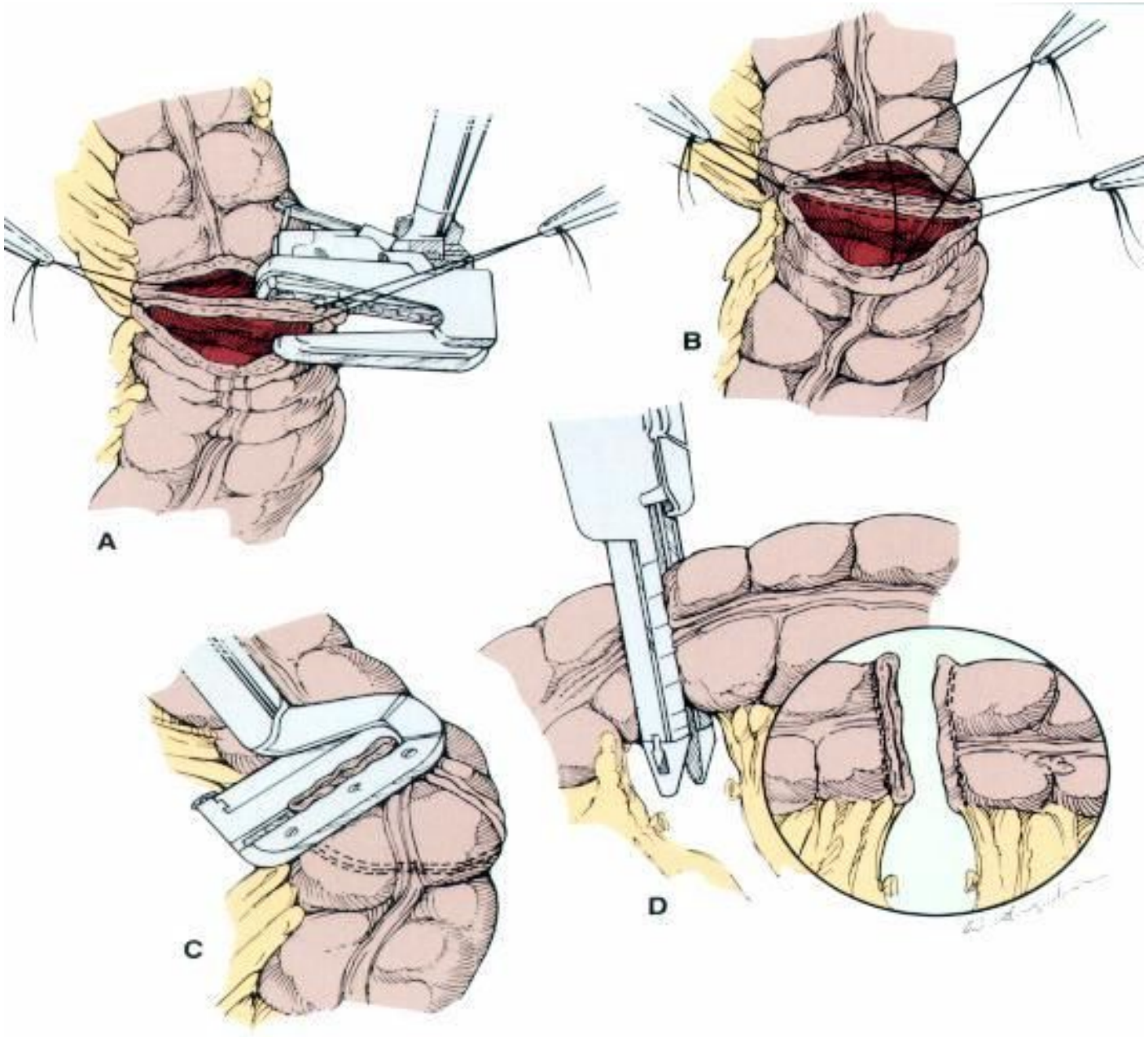
Manual suturing of an intestine



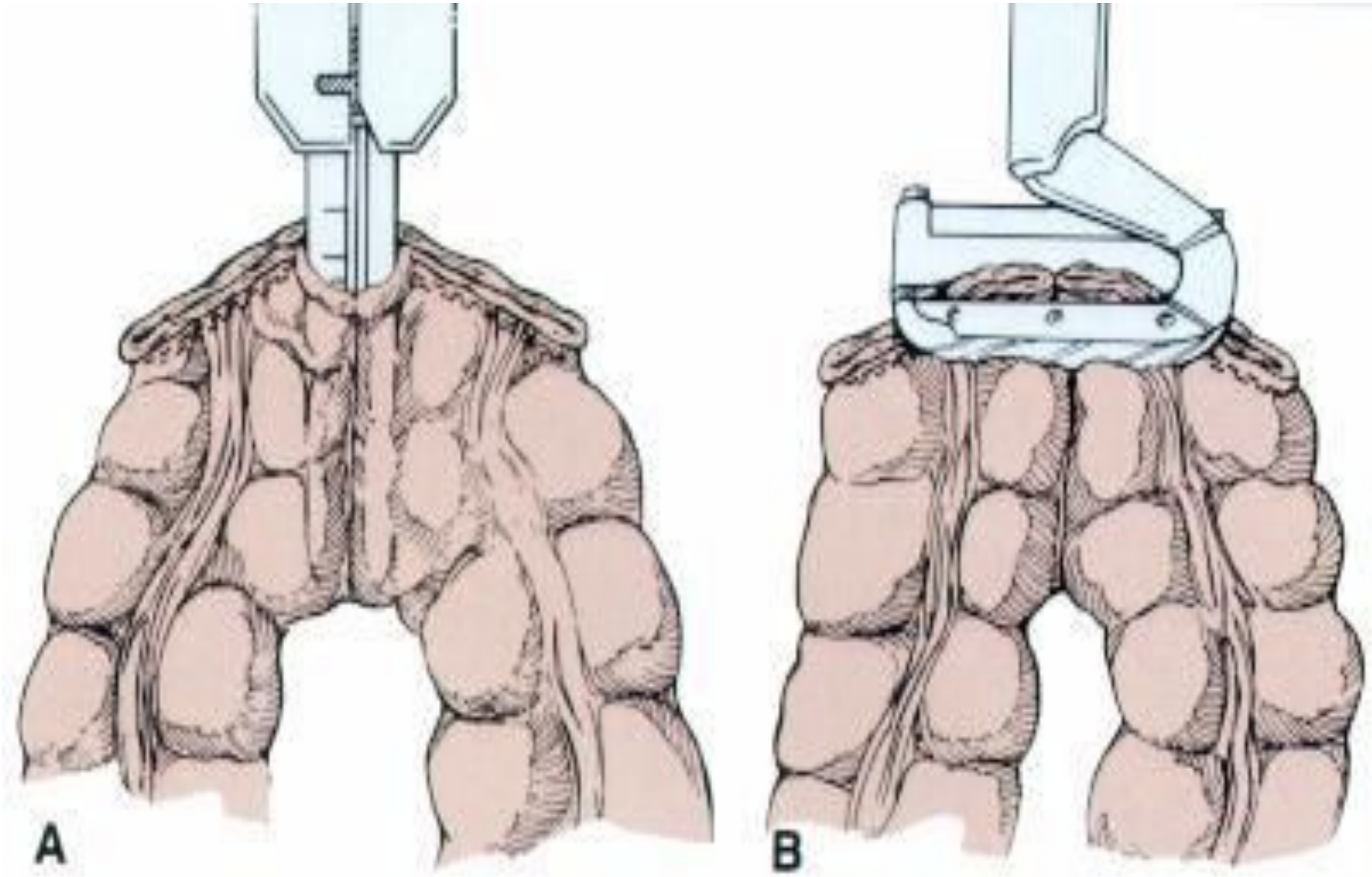
Staplers



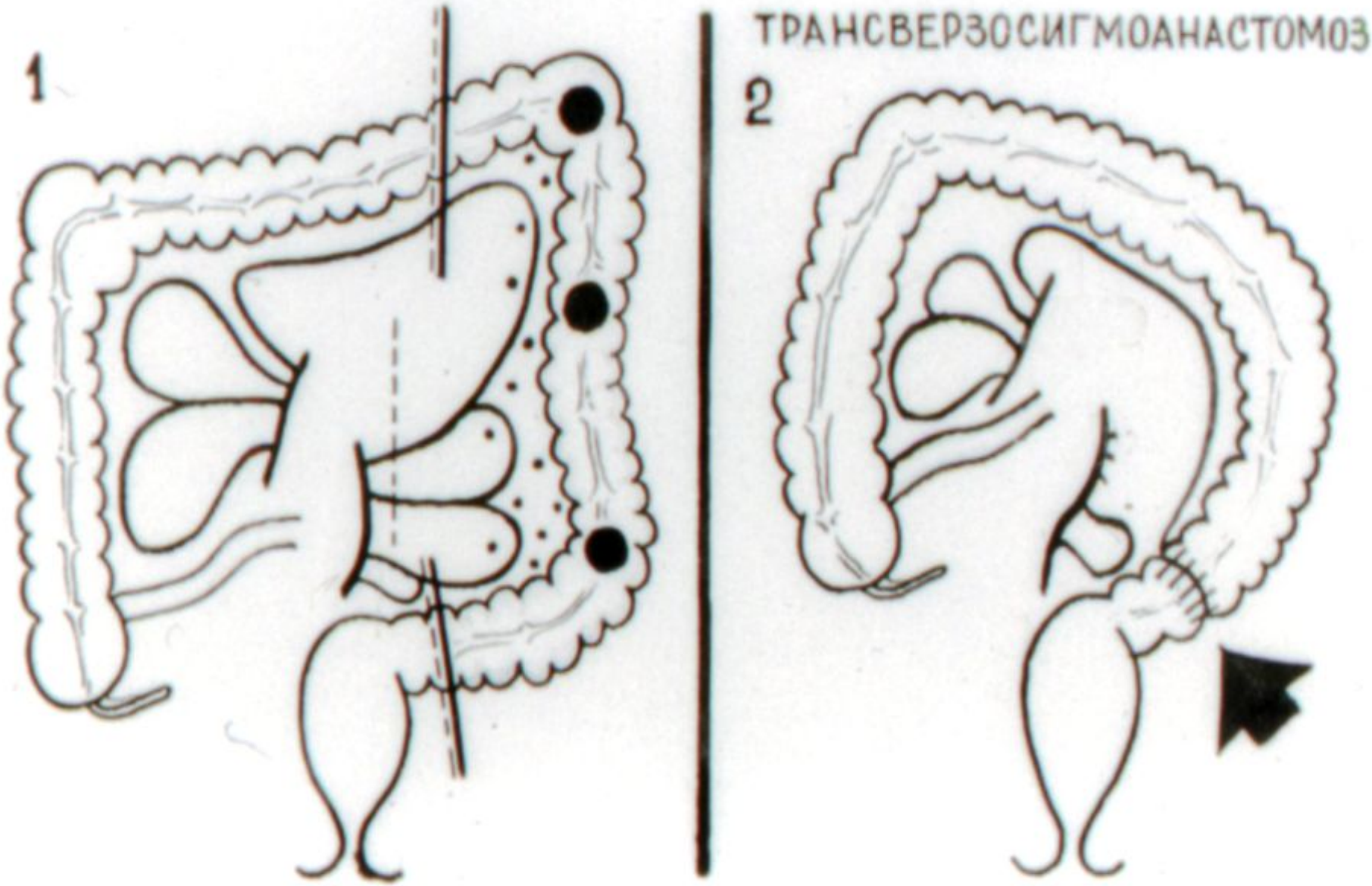
Hardware seam



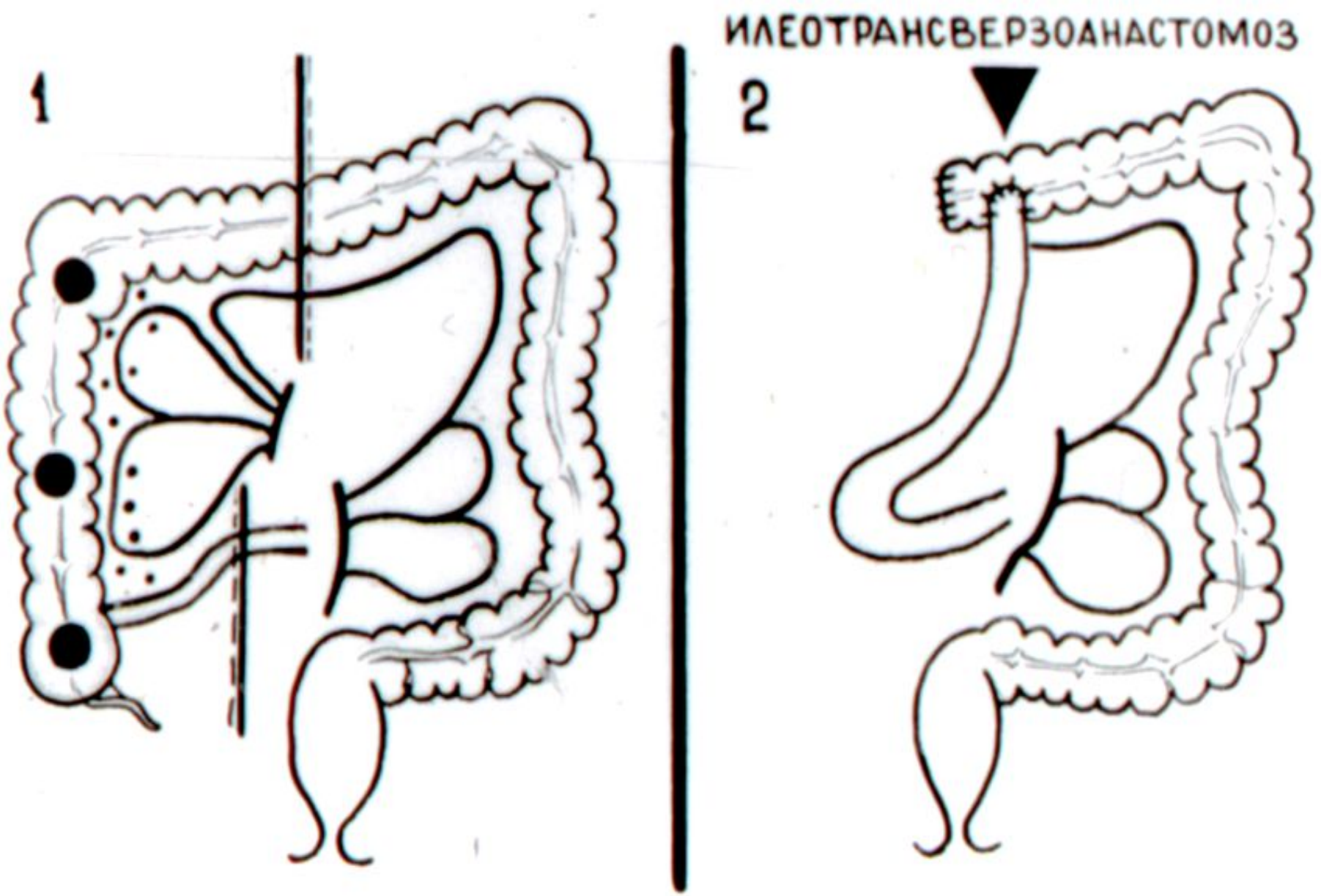
Hardware seam



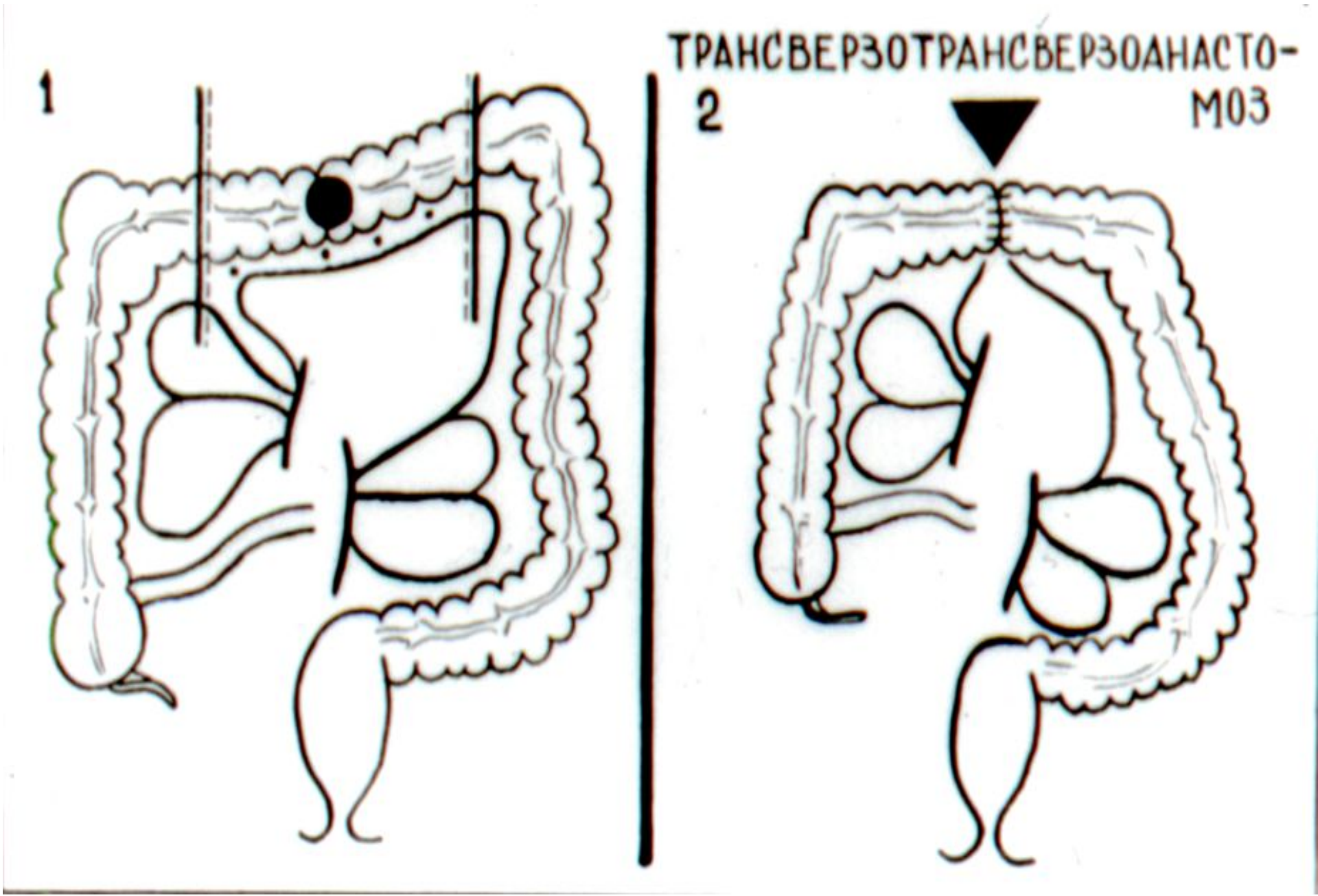
Left half resection (hemicolectomy)



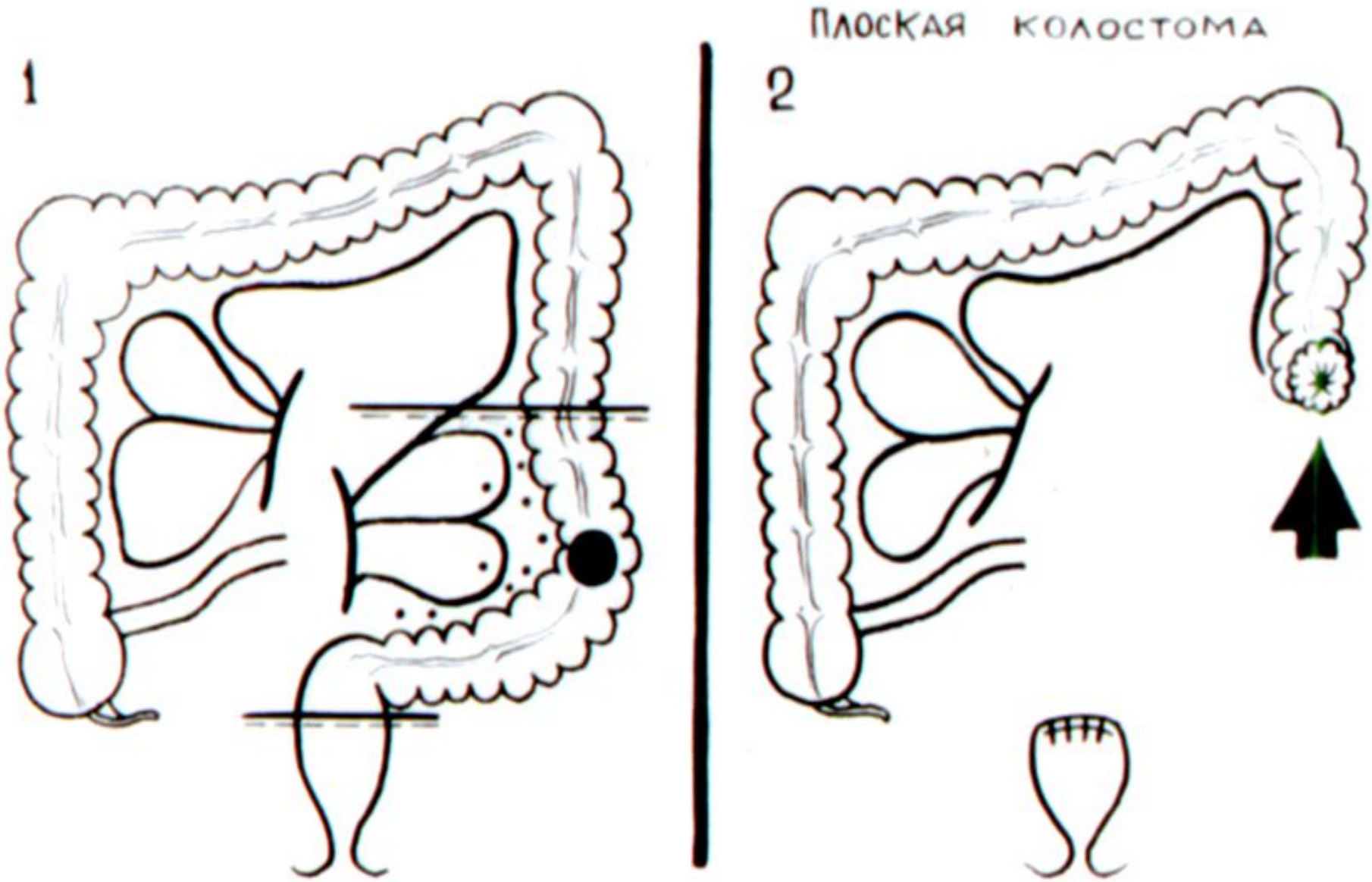
Right half resection (hemicolectomy)



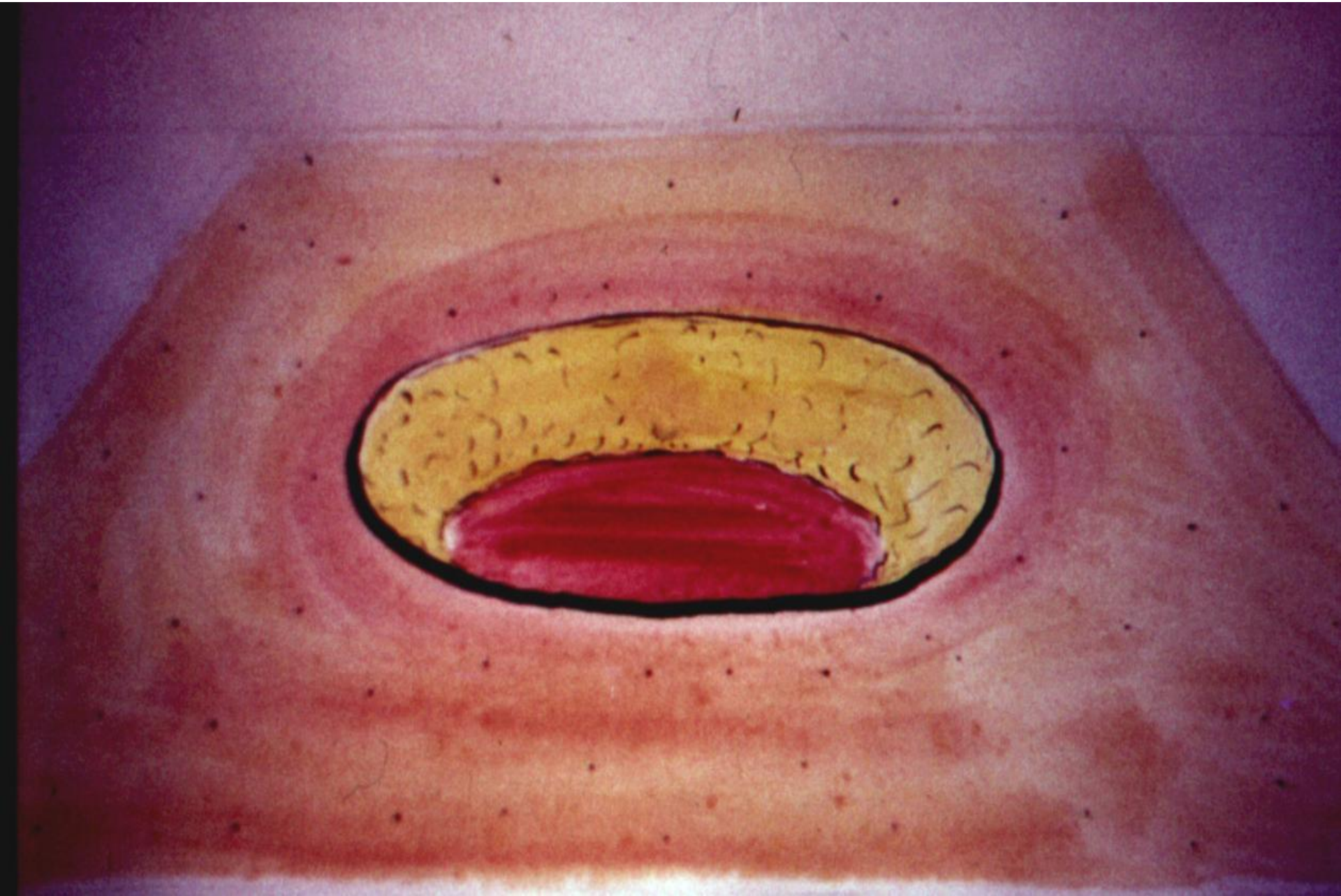
Transversum resection



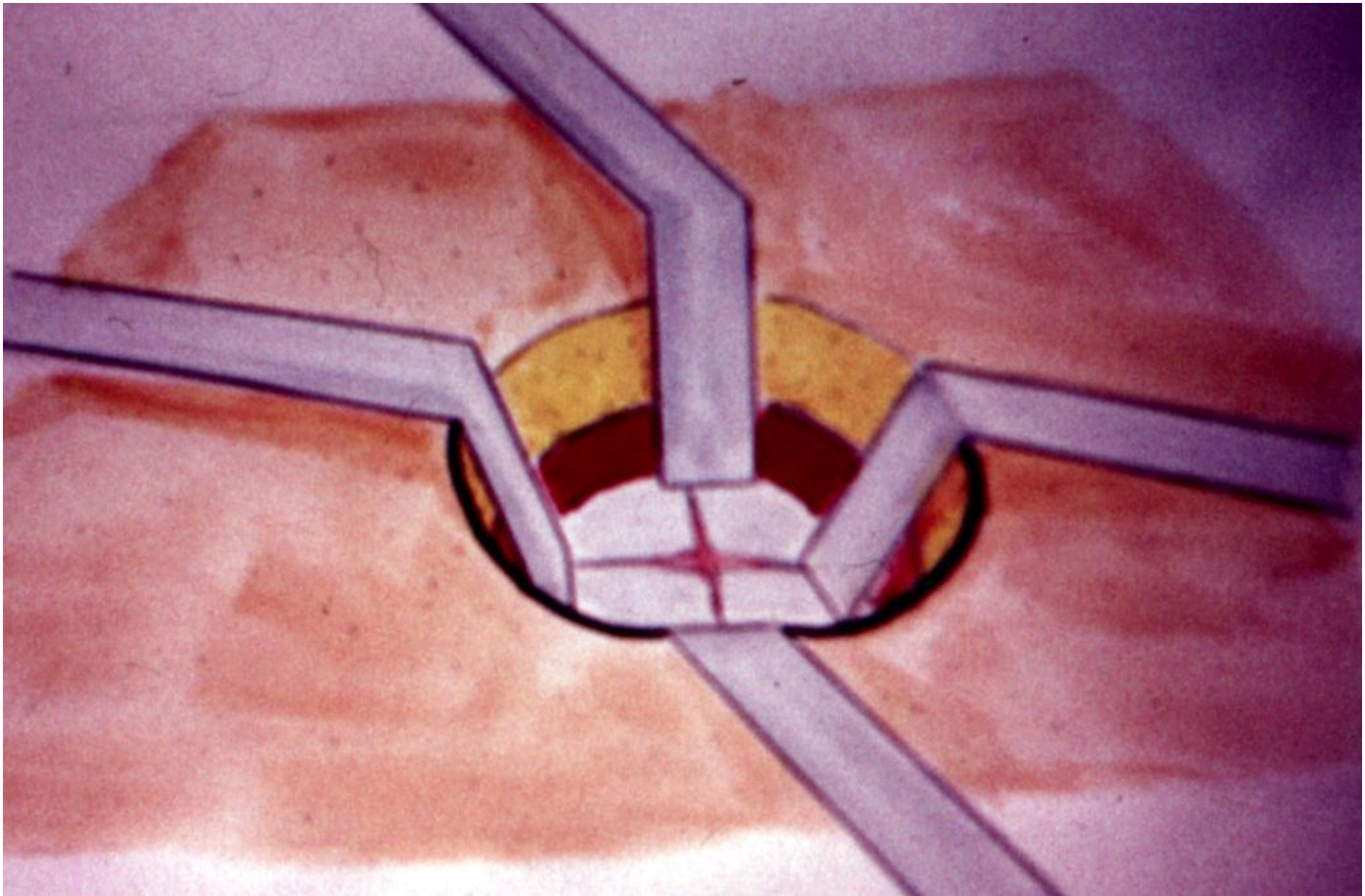
Type Hartmann resection



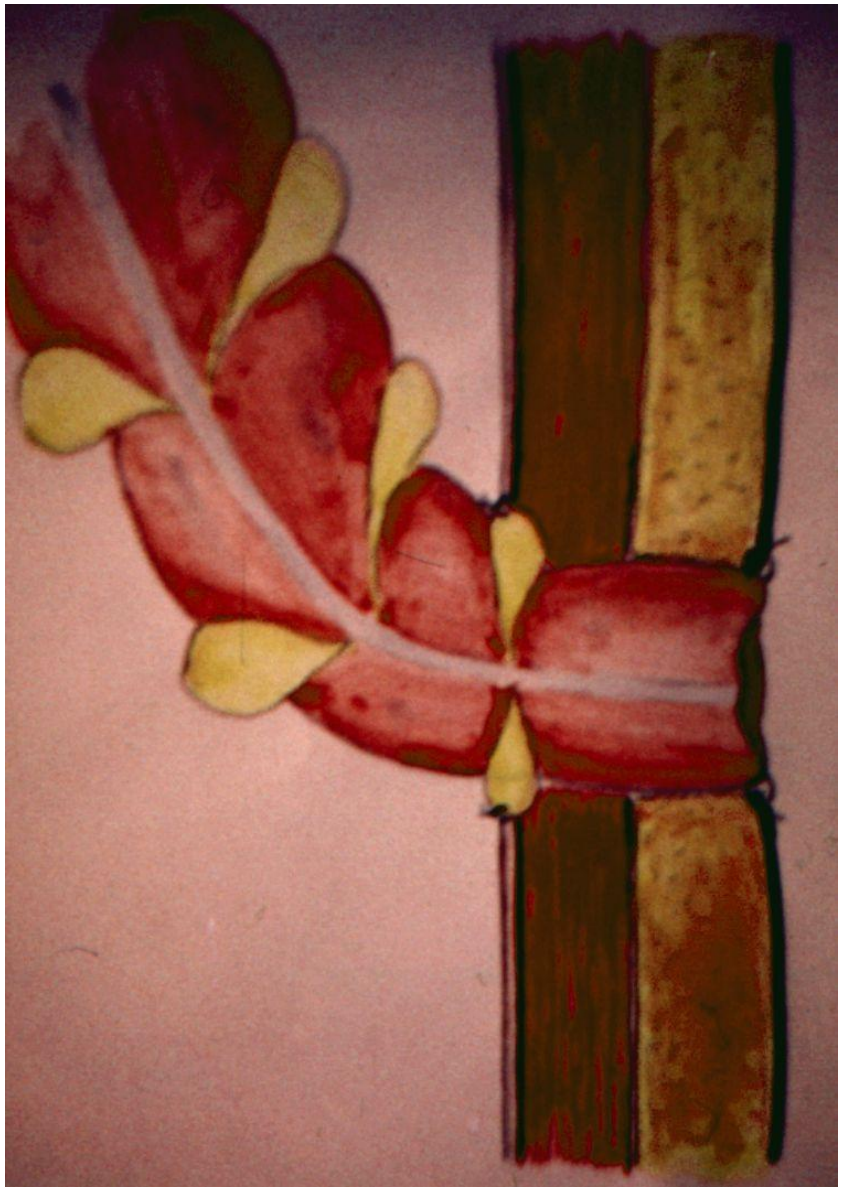
Terminal flat colostomy on E.G.Topuzov



Terminal flat colostomy on E.G.Topuzov

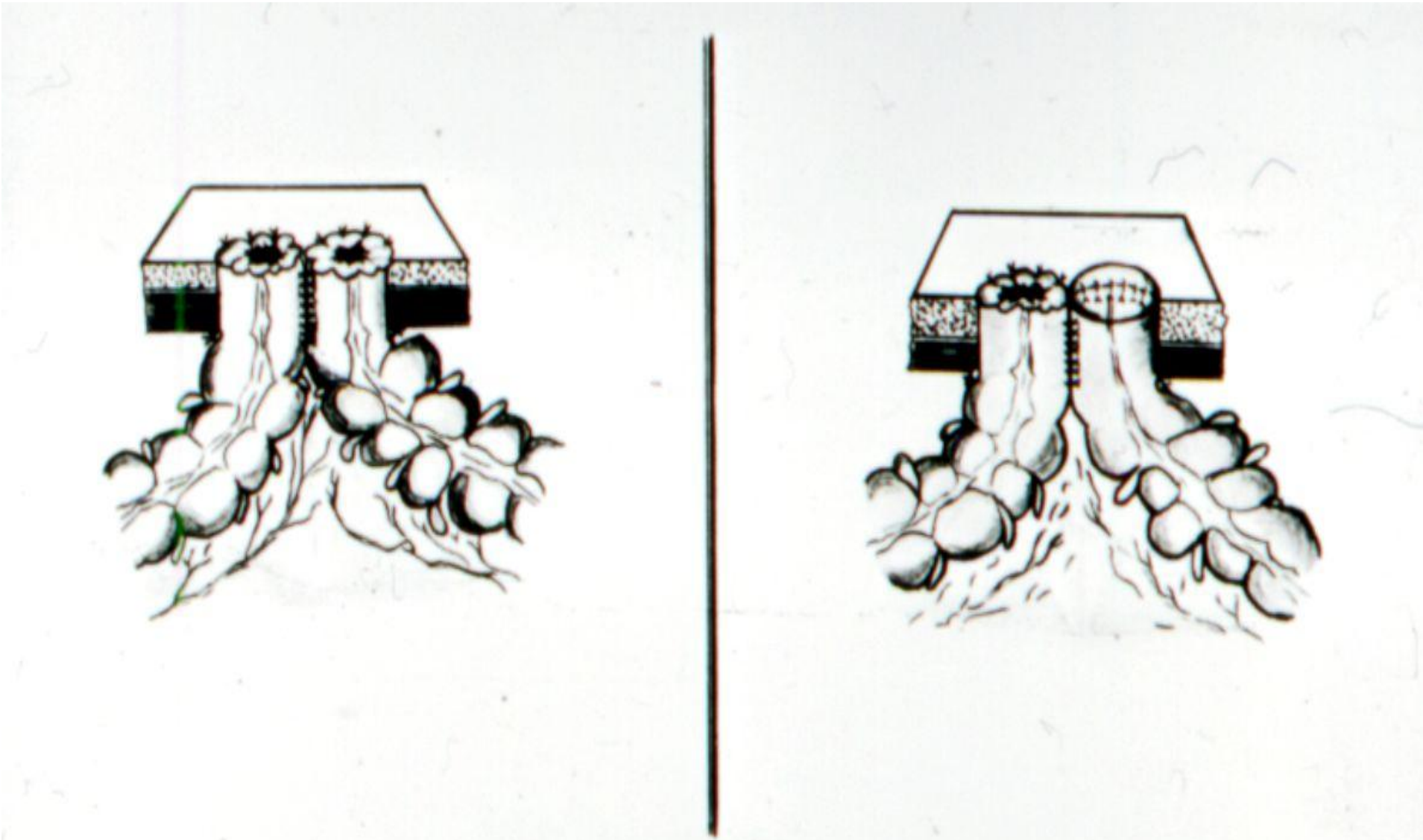


Terminal flat colostomy on E.G.Topuzov

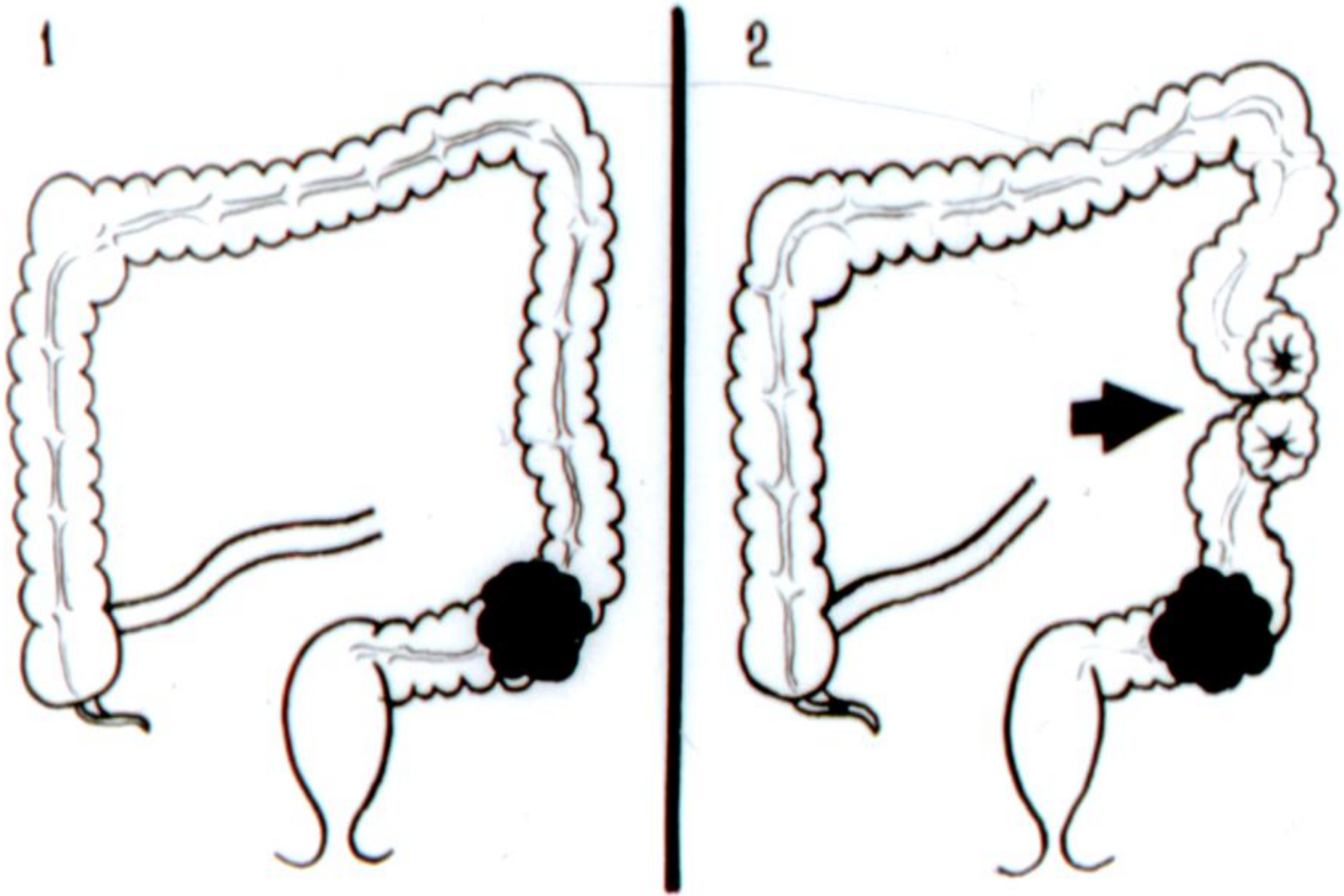


Terminal flat colostomy on E.G.Topuzov

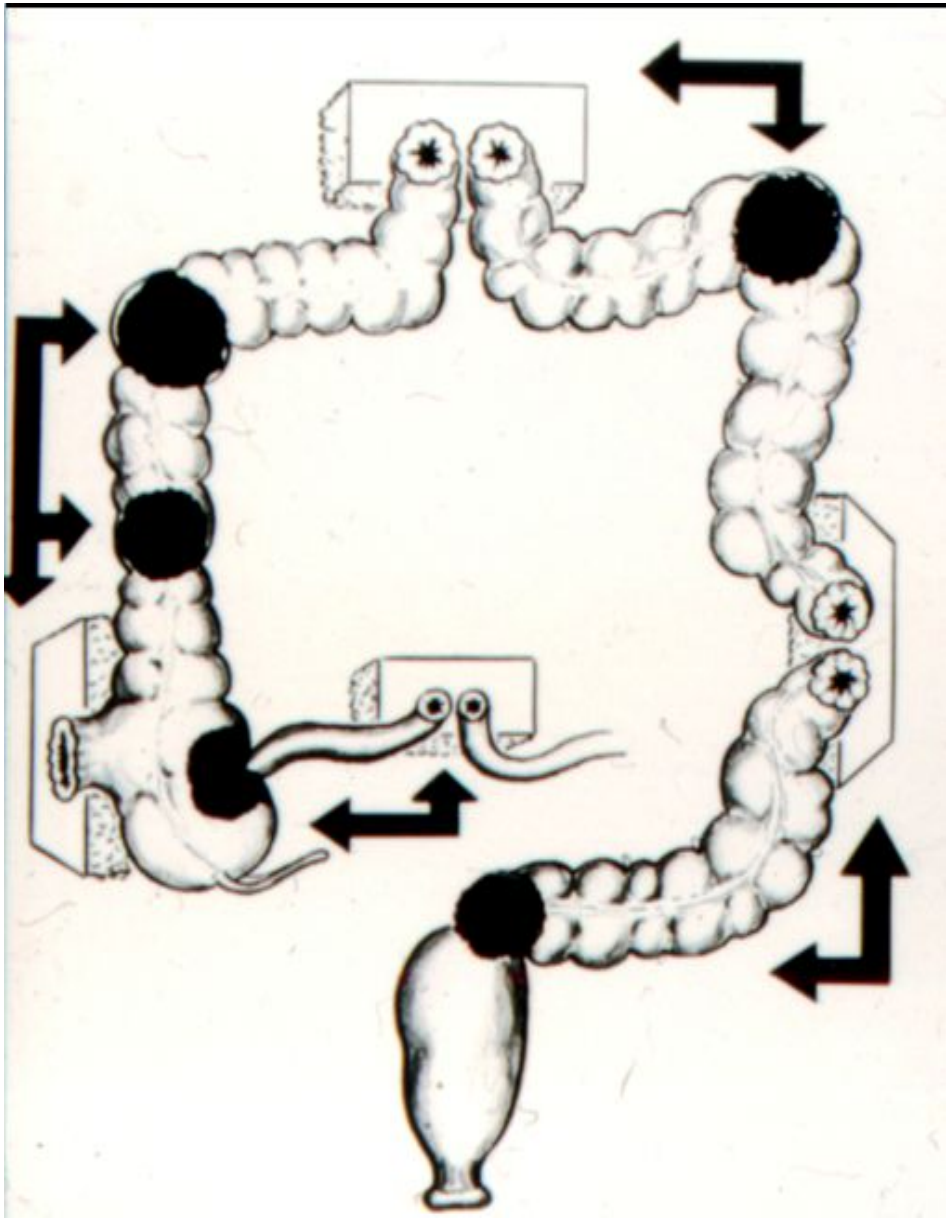
E.G.Topuzov's updating of Hartmann type operation



Double-barrelled colostomy



Colostomy formation places



stenting

stenting

complications

The intestinal obstruction is most typical for a tu-mor localization in the colon left half or in a sigmo-id intestine (here is more often marked endophytic tumour growth, fecal masses more dense, diame-ter of an intestine is less). The principal cause of an obstruction - narrowing of an intestine lumen, but sometimes it causes an invagination of an intestine at exophytically growing tumour or volvulus of the intestine amazed by a tumour. Harbingers of deve-lopment of an obstruction are the constipations, replaced diarrheas, rumbling in an abdomen, a pe-riodic abdominal distention.

complications

The inflammation in tissues surrounding a tumour (up to phlegmon or abscess de-velopment) is marked at 8-10% of patients. It is more often marked at tumours of caecum and ascending colon.

Question

Pain in the right ileal region, a tumour and a heat.
With what diseases you should differentiate?

complications

Perforation of an intestine can be as in a zone of the tumour, at its disinte-gration or a ulceration, and in addu-cent loop (more often in a caecum) at the phenomena of an obstruction (overdistension). Perforation in a free abdominal cavity conducts to deve-lopment of a fecal peritonitis. At per-foration phlegmons develop in a fat behind of an intestine and abscesses of a

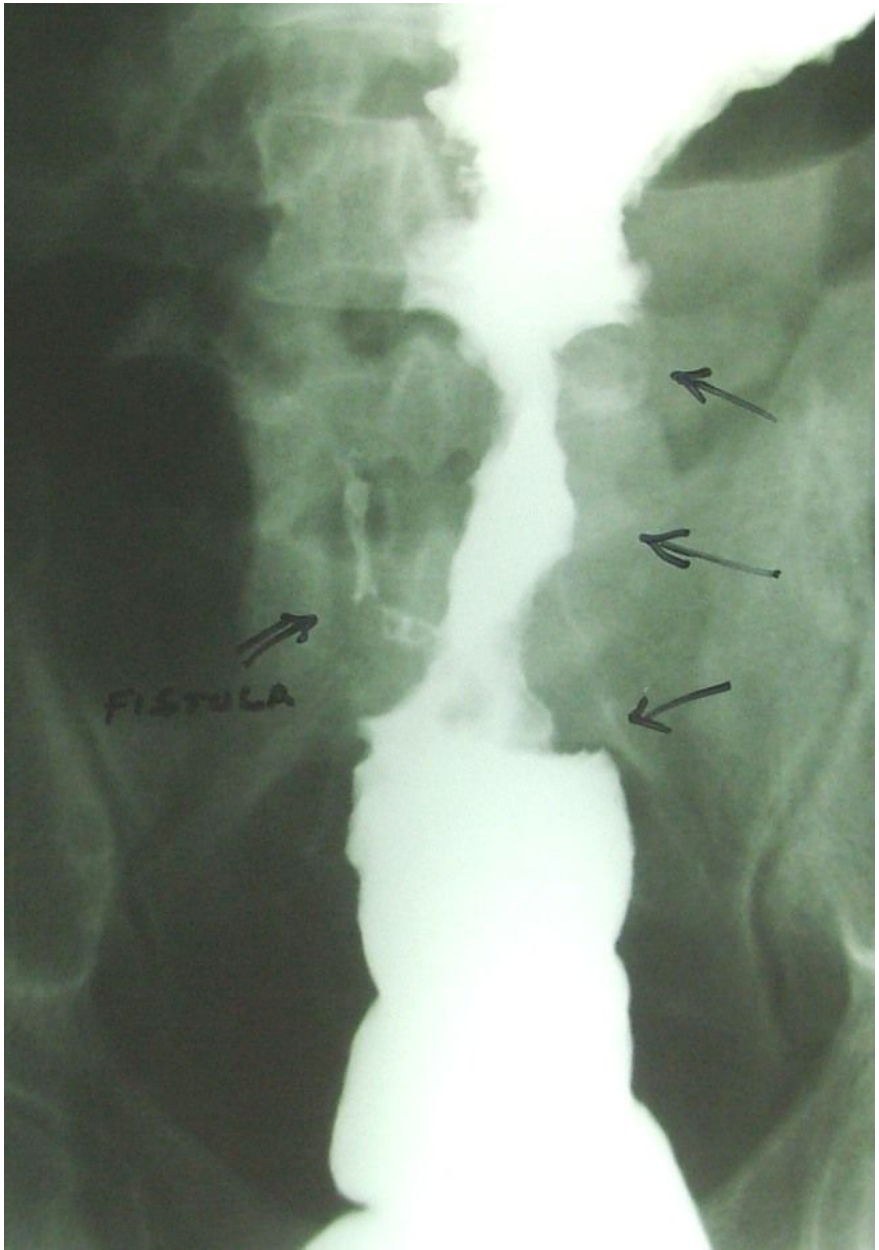
Question

At what colon can-cer complication Schetkin-Blumberg sign more often is defined?

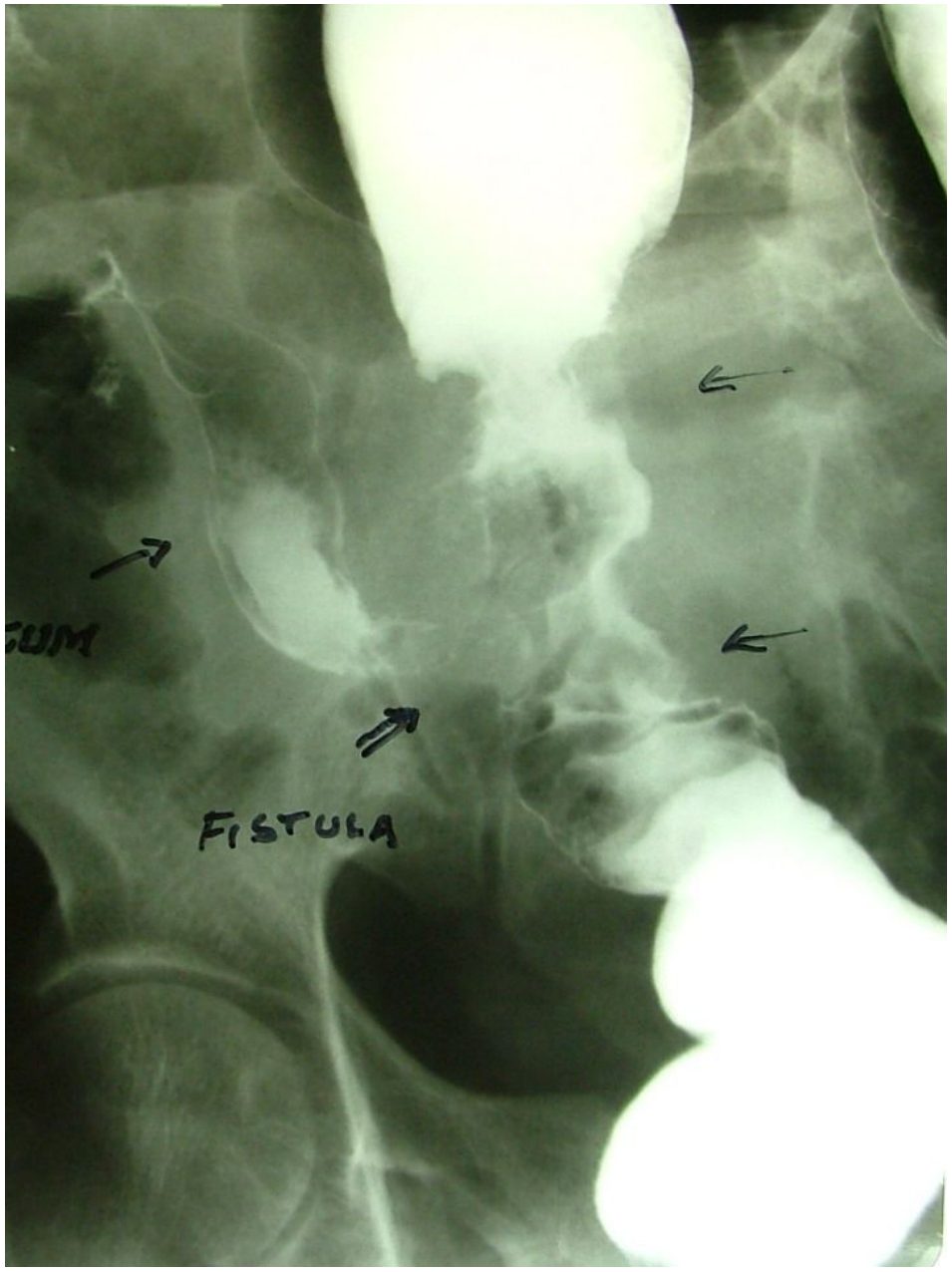
complications

Formation of fistulas at spreading at the nea-rest hollow organs (co-lo-small intestinal, co-lo-gastric, colo-vesical) carry to rare complica-tions

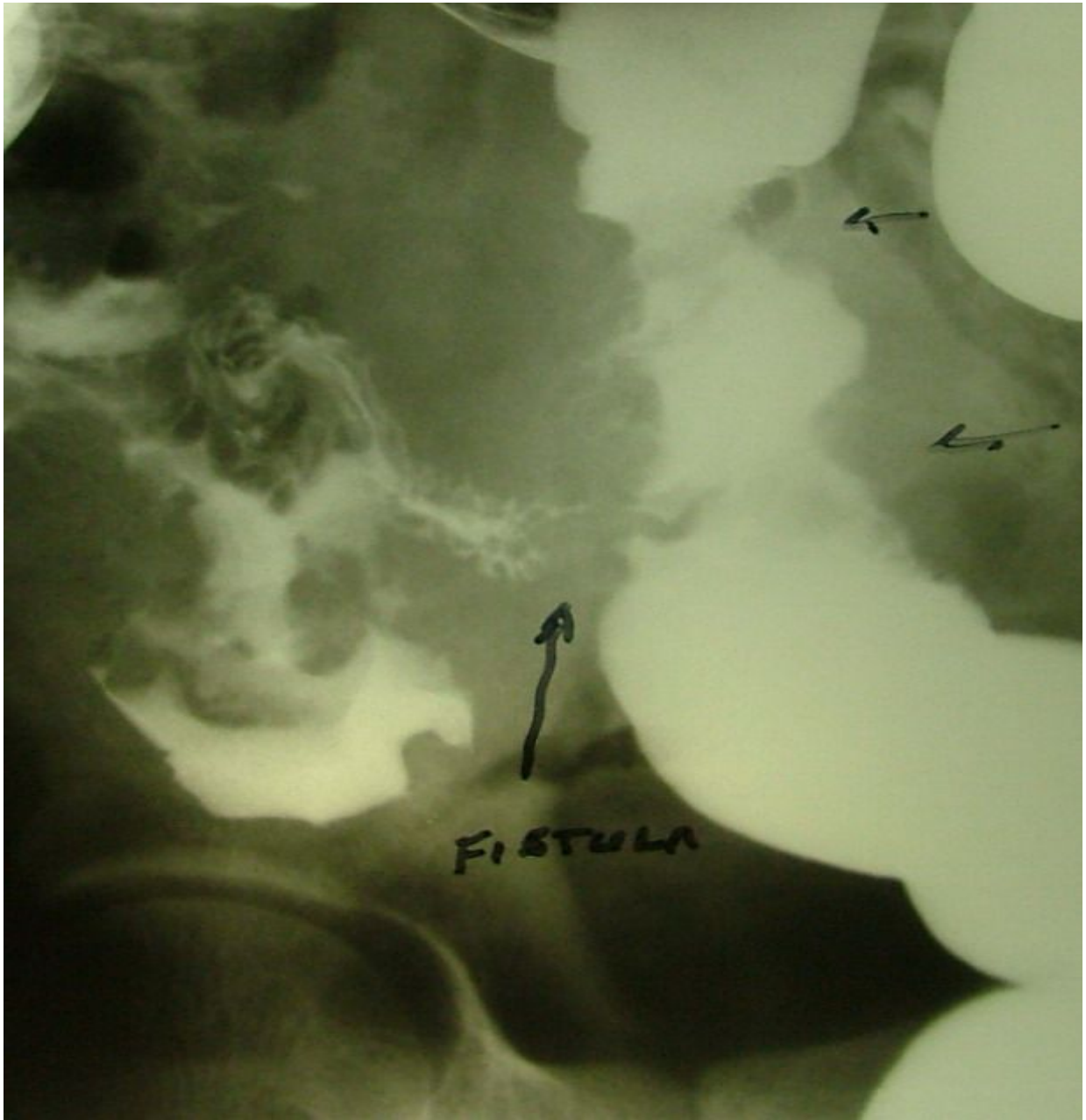
Cancer complication - fistula



Cancer complication - fistula



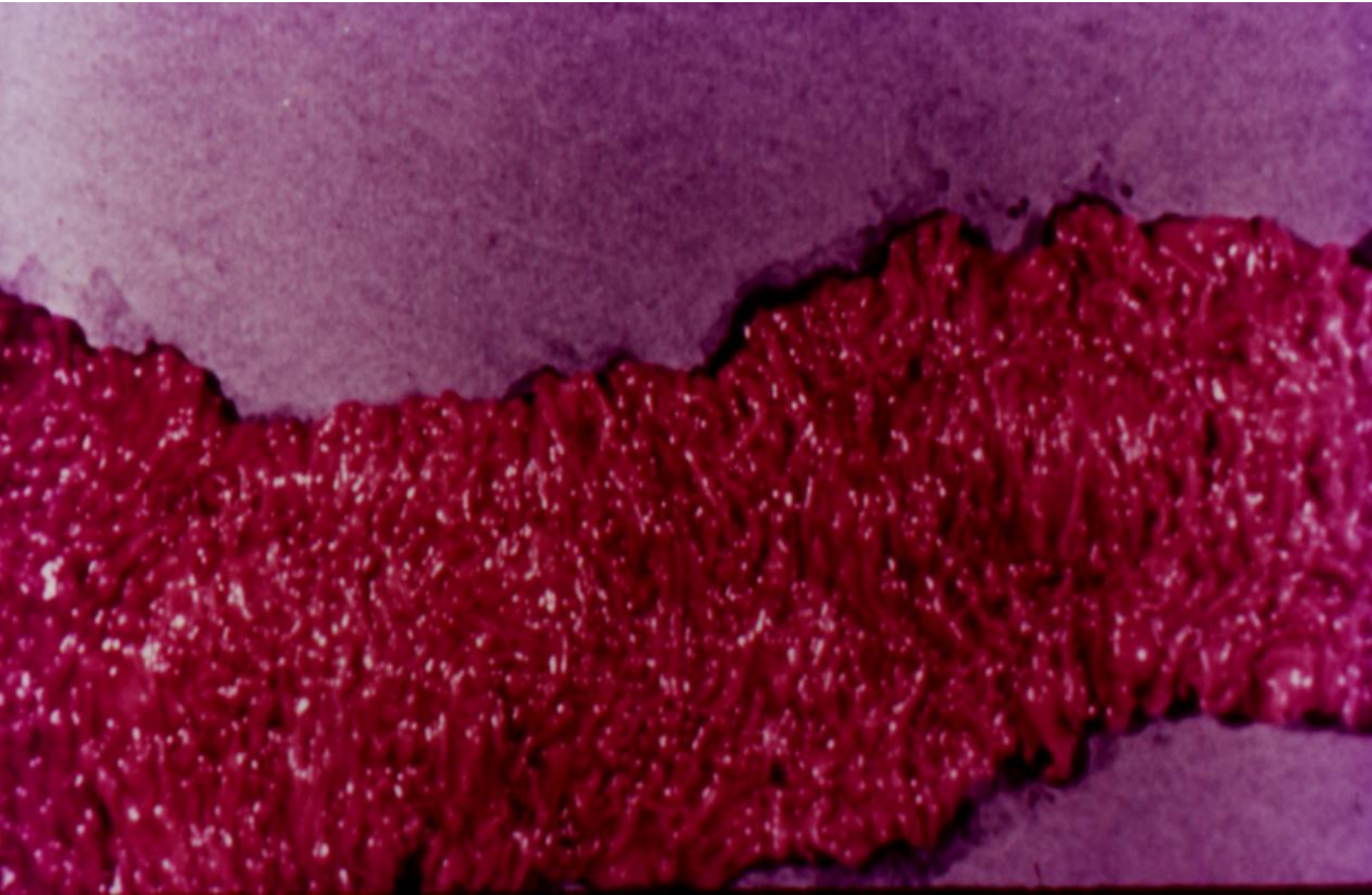
Cancer complication - fistula



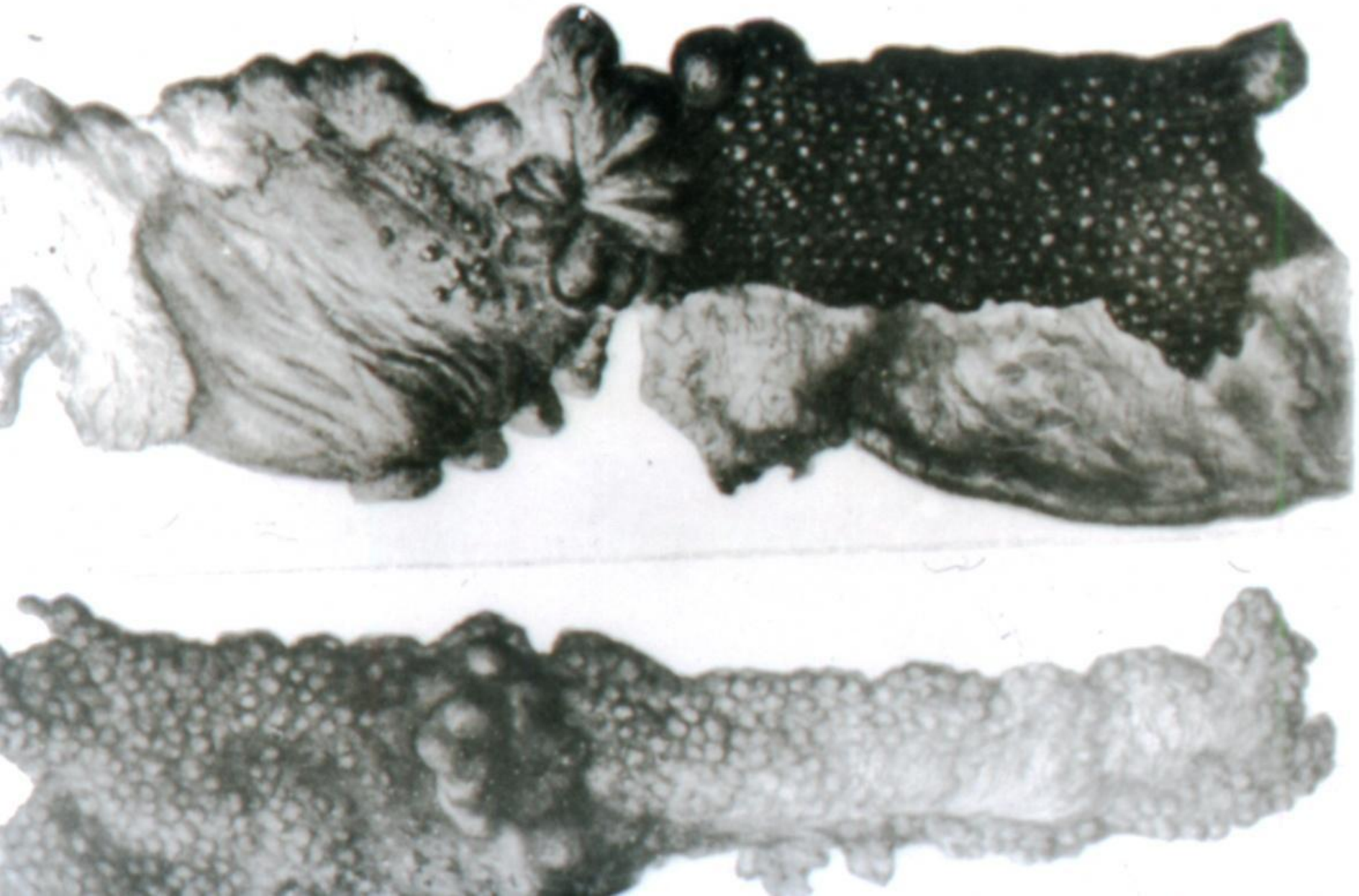
complications

<u>The intestinal bleeding</u> happens, as a rule, insig-nificant. Sometimes it is shown in the form of an impurity of not changed blood in a feces. Is hid-den (occult) is more often.

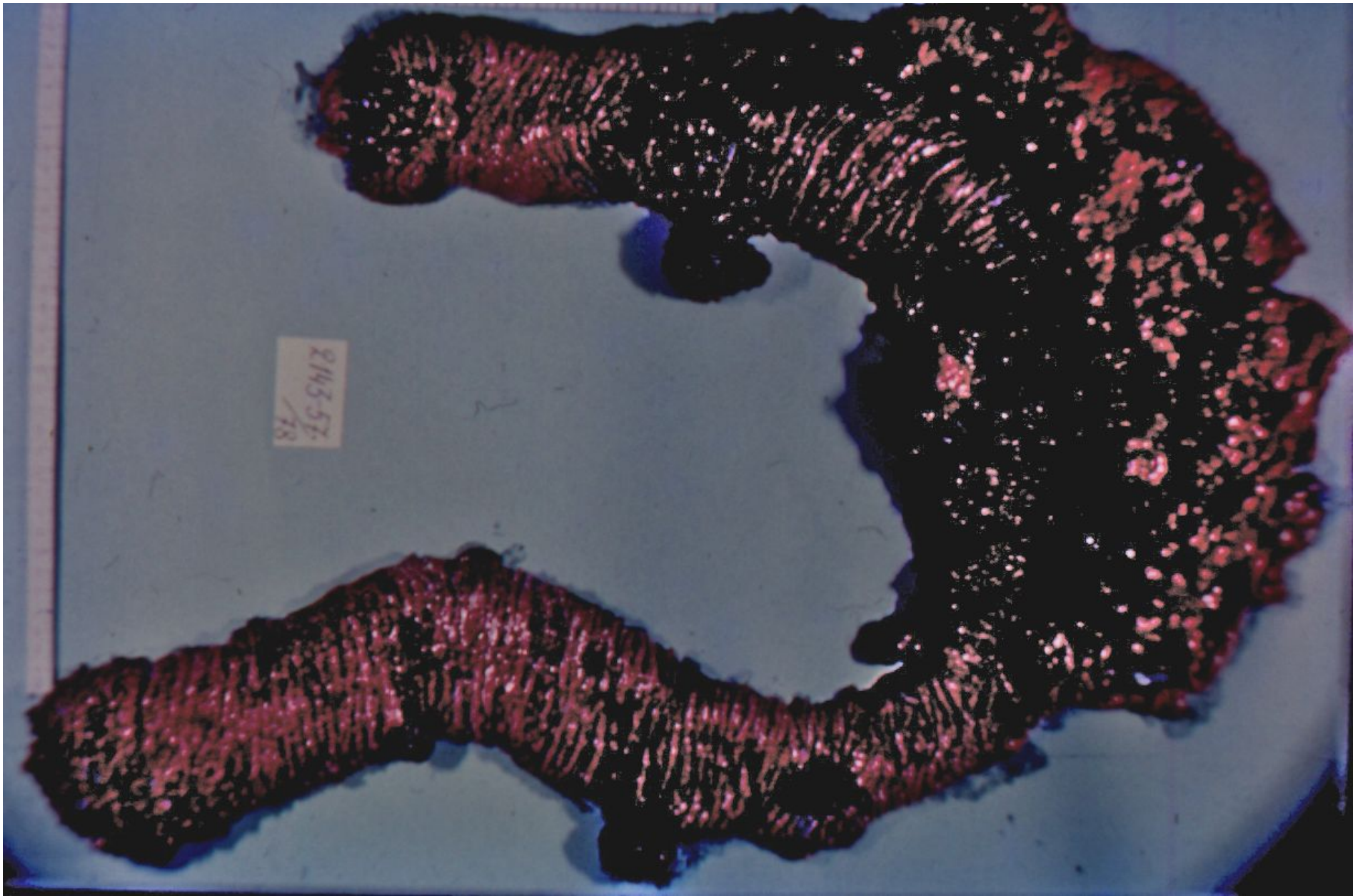
Colon diseases



Cancer on a background a polyposis



Poliposis



Nonspecific colitises

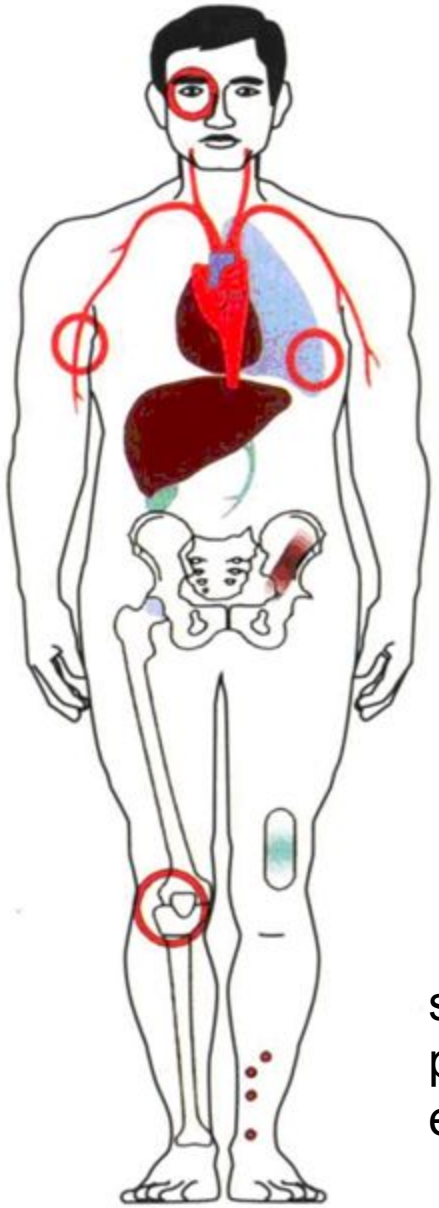
1. Ulcerouse
2. Granulomatous (Crohn's disease)
3. Ischemic

«Drainpipe» sign

colitis

Cystous colitis

Extraintestinal displays



eyes
episcleritis
uveitis
conjunctivitis

heart
plevroperikardit
myocarditis

kidneys
oxalate stones
renal tubular damage

vessels
vasculitis
thromboembolism

liver
fatty steatosis
chronic active hepatitis
primary sclerosing cholangitis

joints
peripheral arthropathy
sacroiliac disease
spondylitis

skin
pyoderma gangrenosum
erythema nodosum

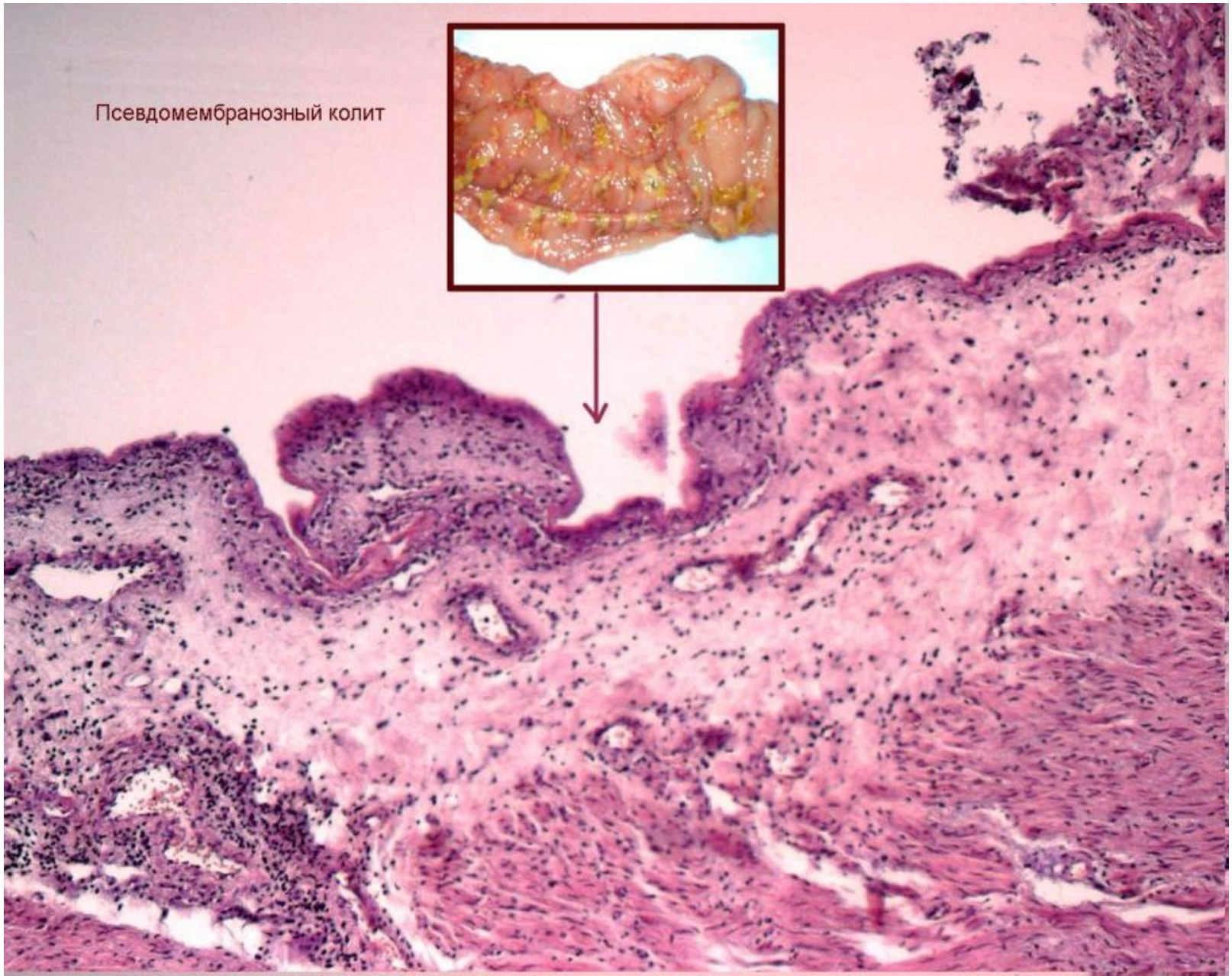
complications

- Toxic megacolon
- Perforation
- Peritonitis
- Intestinal obstruction
- Bleedings
- Abscesses
- Fistulas
- Infiltrates

Indications to operation at ulcerouse colitis

- Intestinal bleeding.
- 1. The frequency of bowel movements 12 or more per day with a macroscopically severe admixture of blood against the background of the introduction of combined therapy with steroid hormones for 7 days;
- 2. The volume of the stool with the intense bloody 1000 ml per day or more;
- 3. The volume of blood loss, confirmed by scintigraphy, 150 ml per day or more.

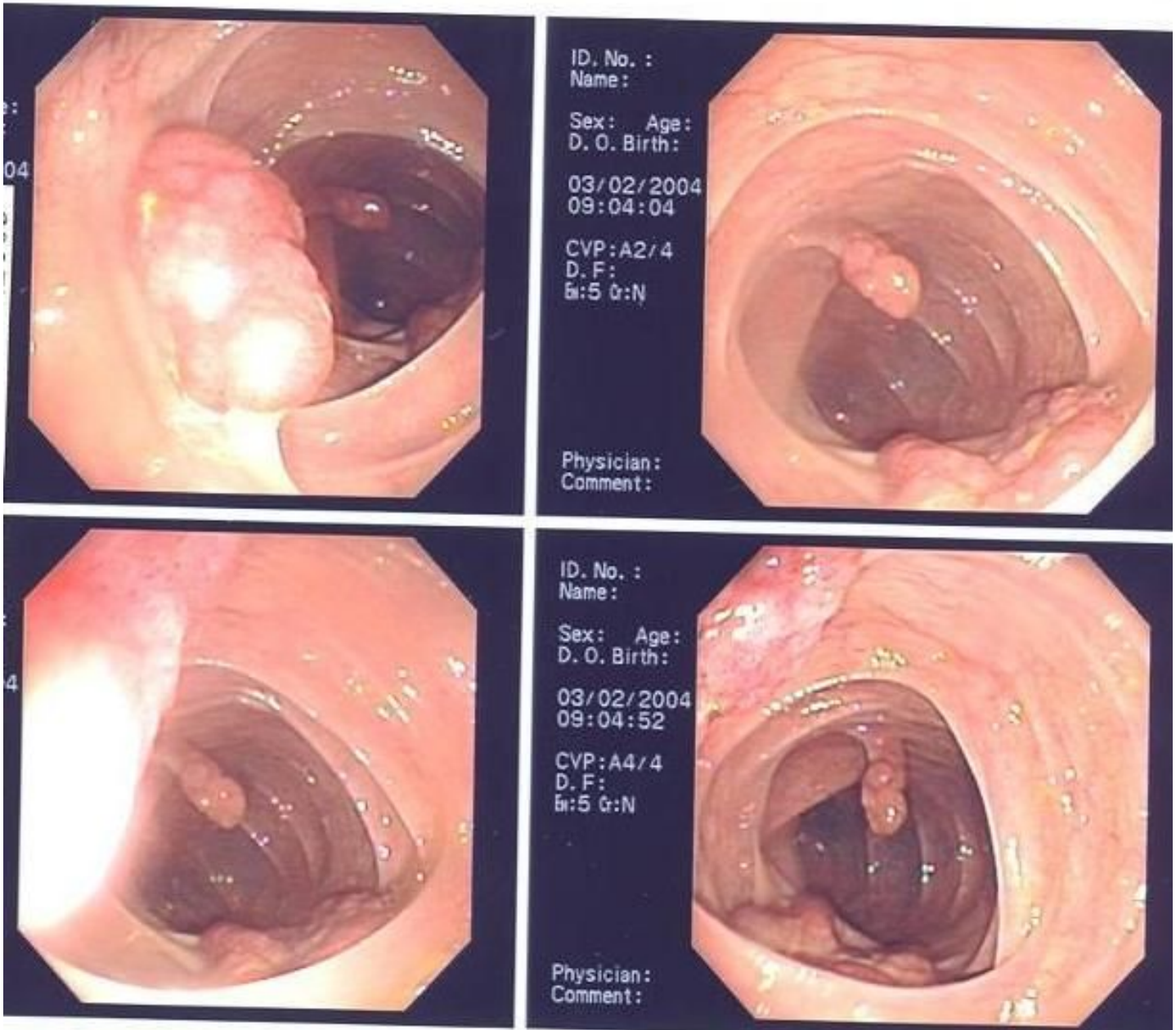
Pseudomembranous colitis



Polips

Hyperplastic
Tubular adenoma
Tubulary-villiferous adenoma
Villiferous adenoma

polips


ID. No. :
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Sex : Age :
D. O. Birth :
03/02/2004
09:04:04
CVP : A2/4
D. F :
Physician :
Comment :
ID. No. :
Name :
Sex : Age :
D. O. Birth :
03/02/2004
09:04:52
CVP : A4/4
D. F :
Physician :
Comment :

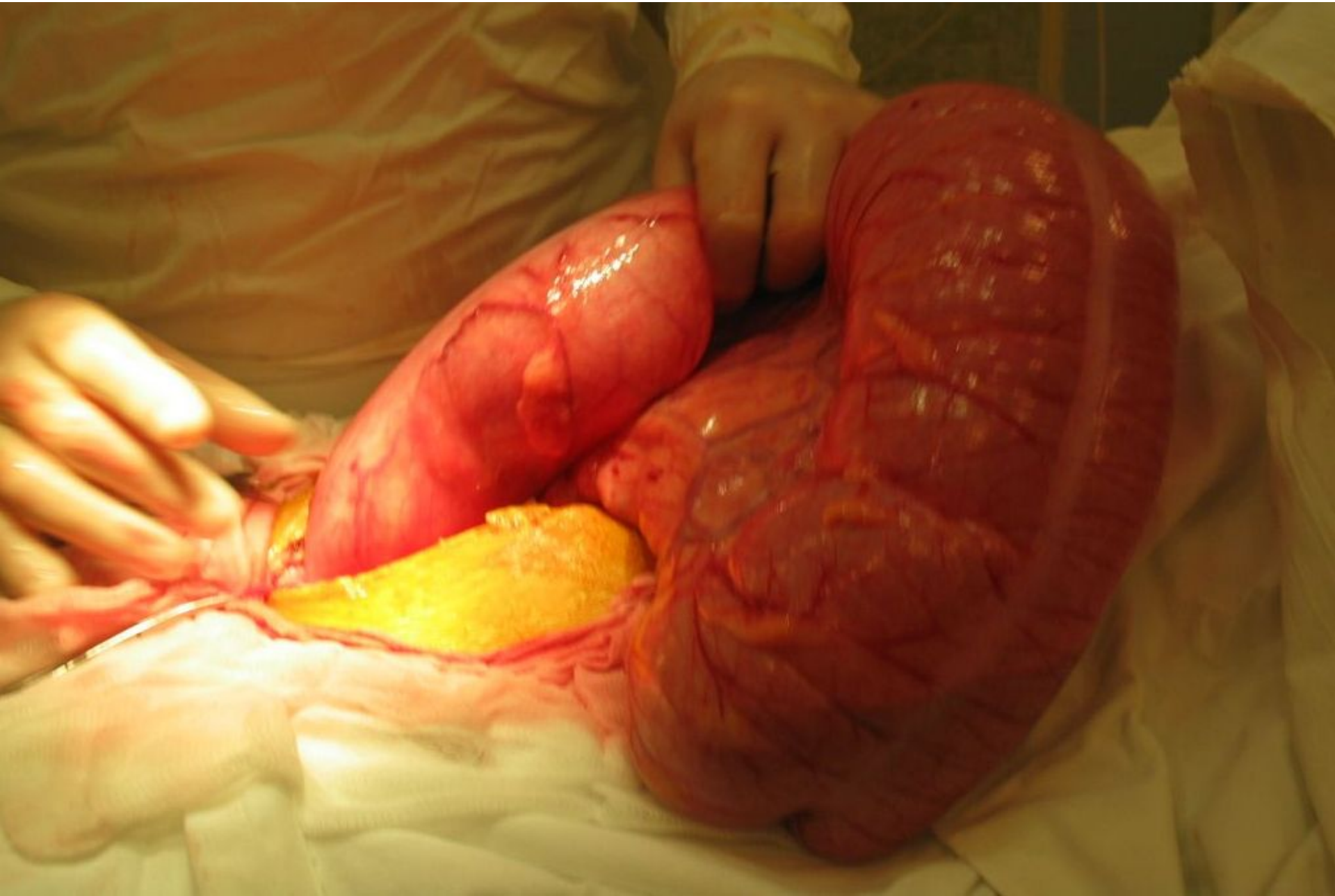
poliposis

poliposis

Congenital diseases

1. Hirshsprung disease
2. Megacolon
3. Dolichocolon

Hirshsprung disease



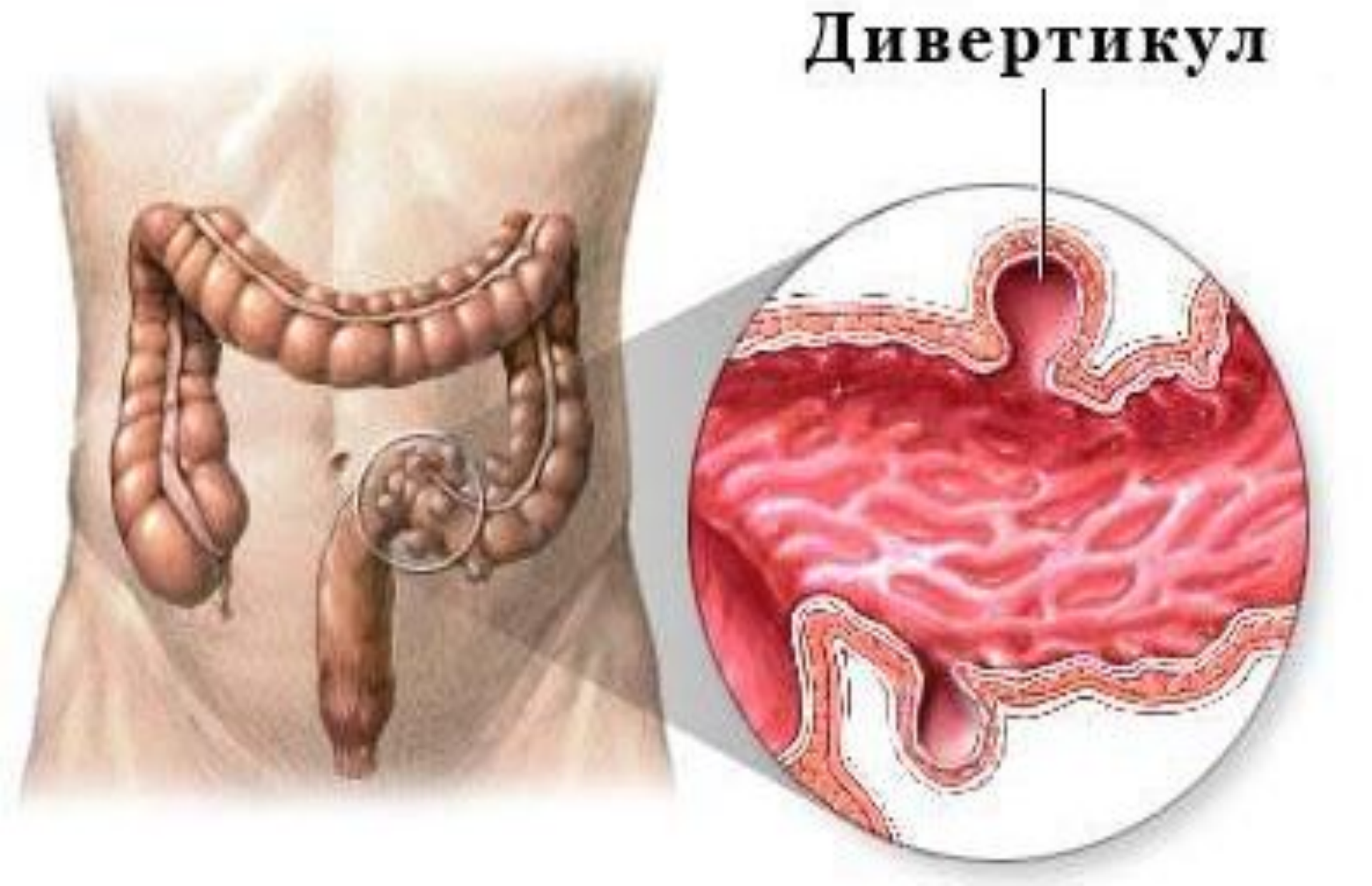
Differential diagnostics

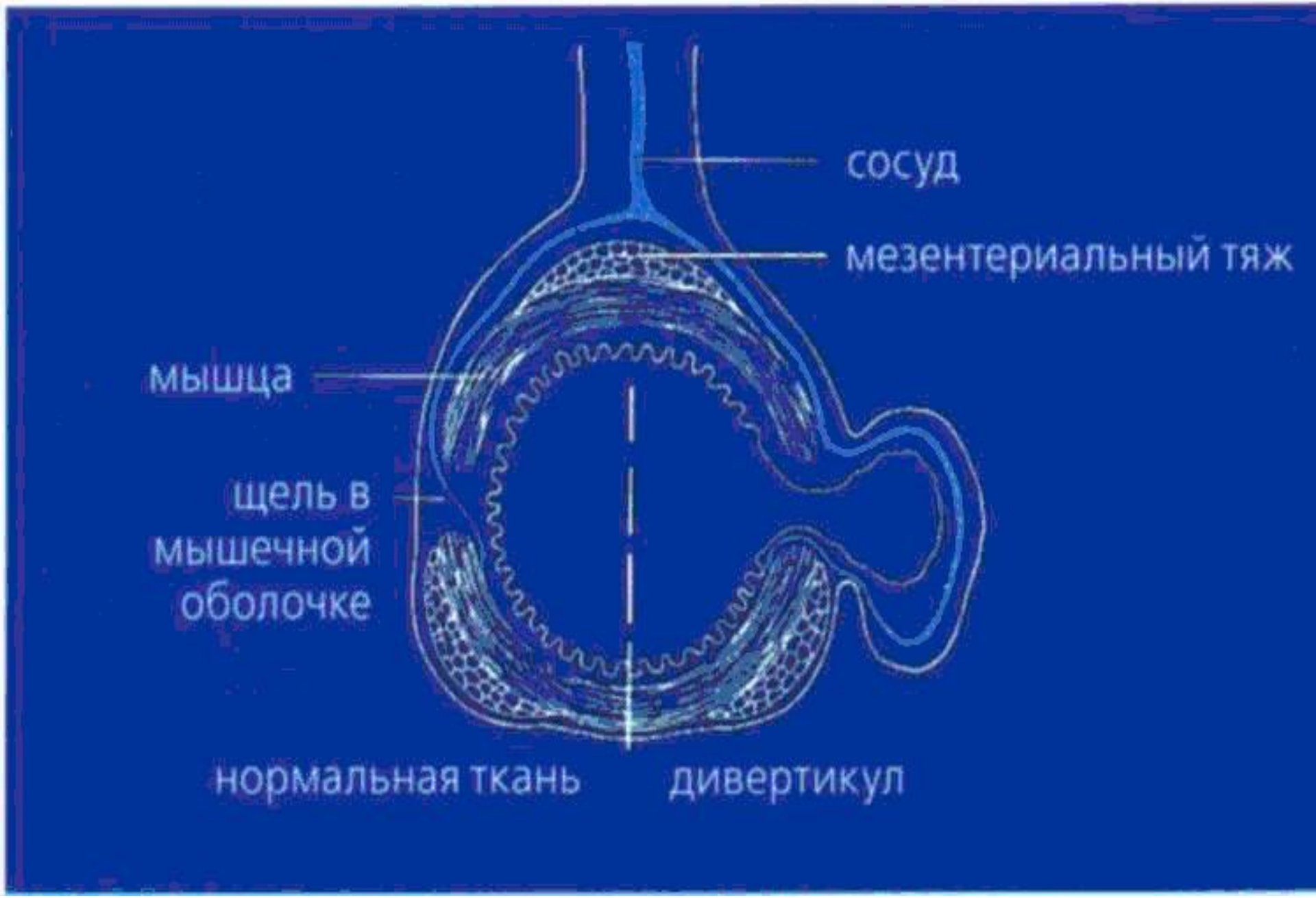
1. Myxedema
2. Medicinal influences (morphinum and so forth)
5. Depressions
6. Schizophrenia
7. Scleroderma
8. Chagas disease

diverticuls

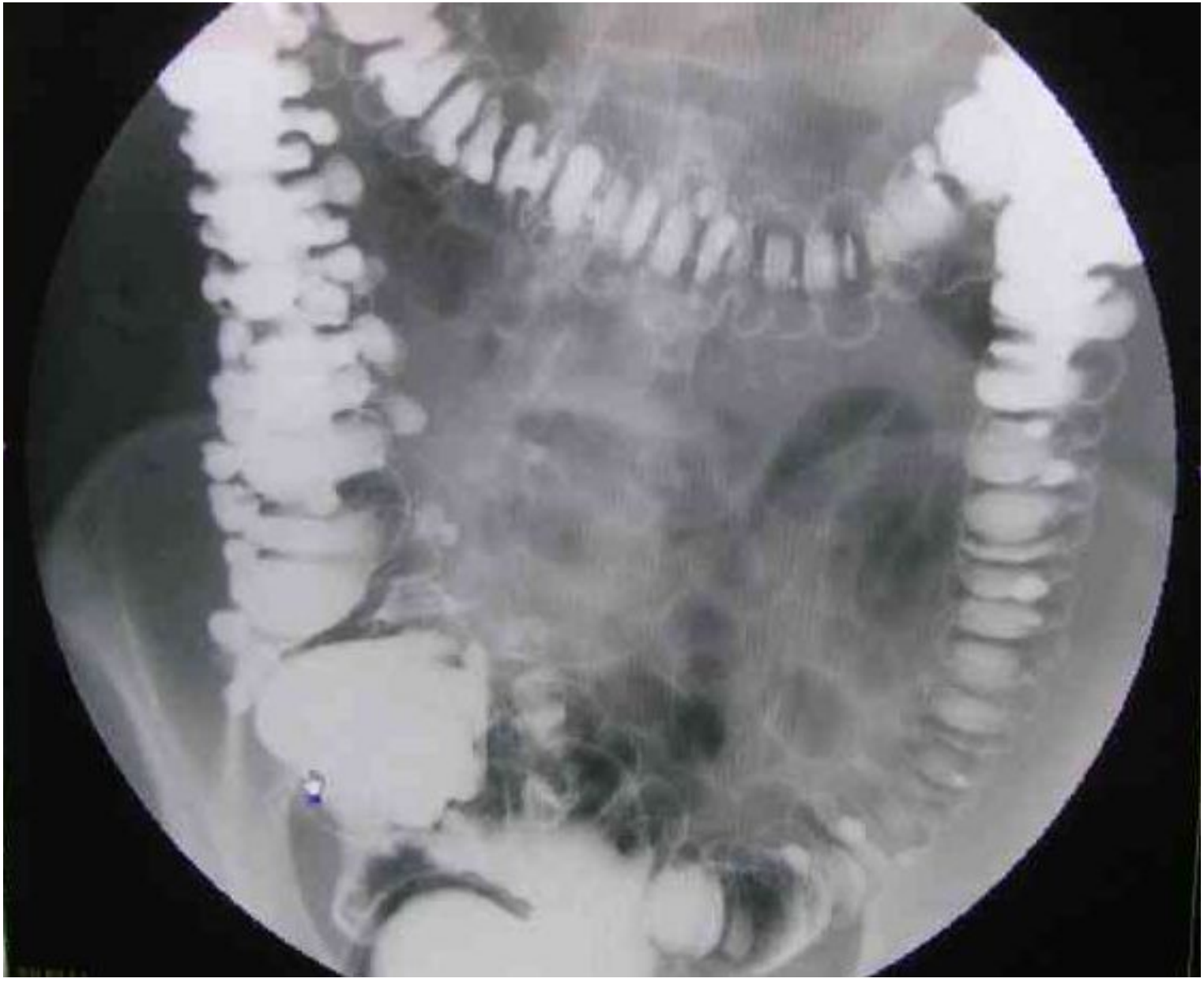
Diverticul
Diverticulosis
Diverticulitis

diverticul

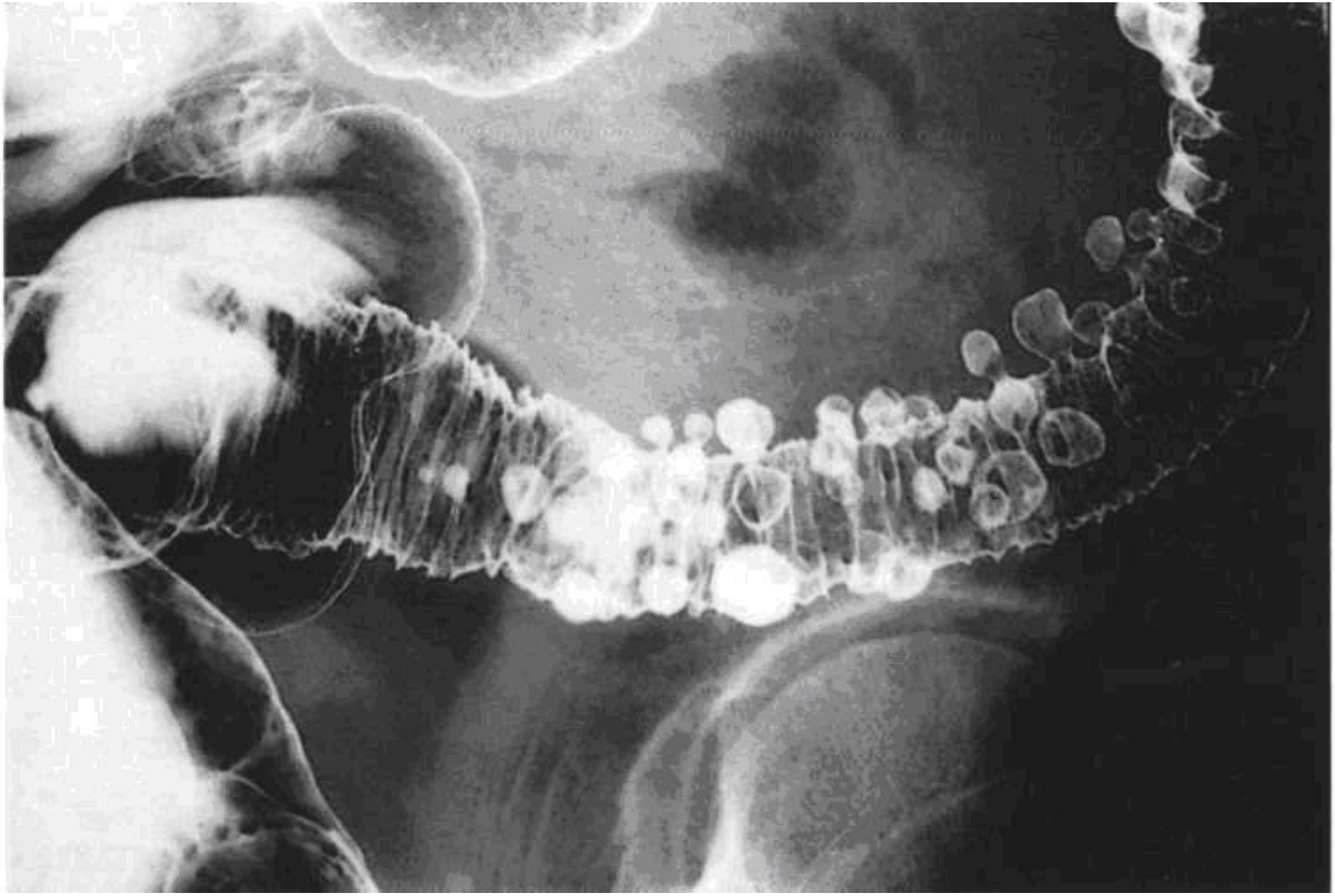



сосуд
мезентериальный тяж
мышца
щель в мышечной оболочке
нормальная ткань
дивертикул

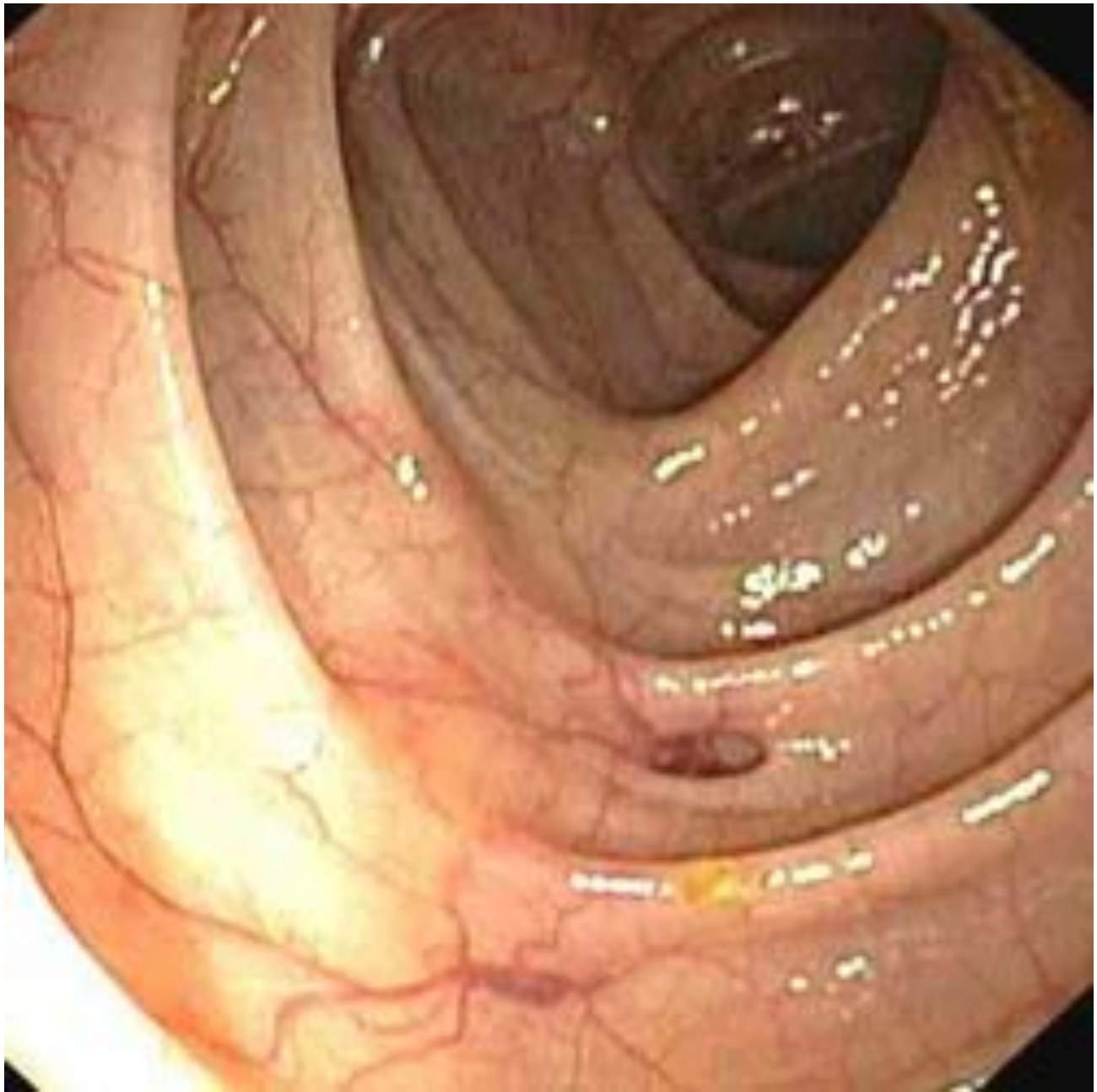
diverticulosis



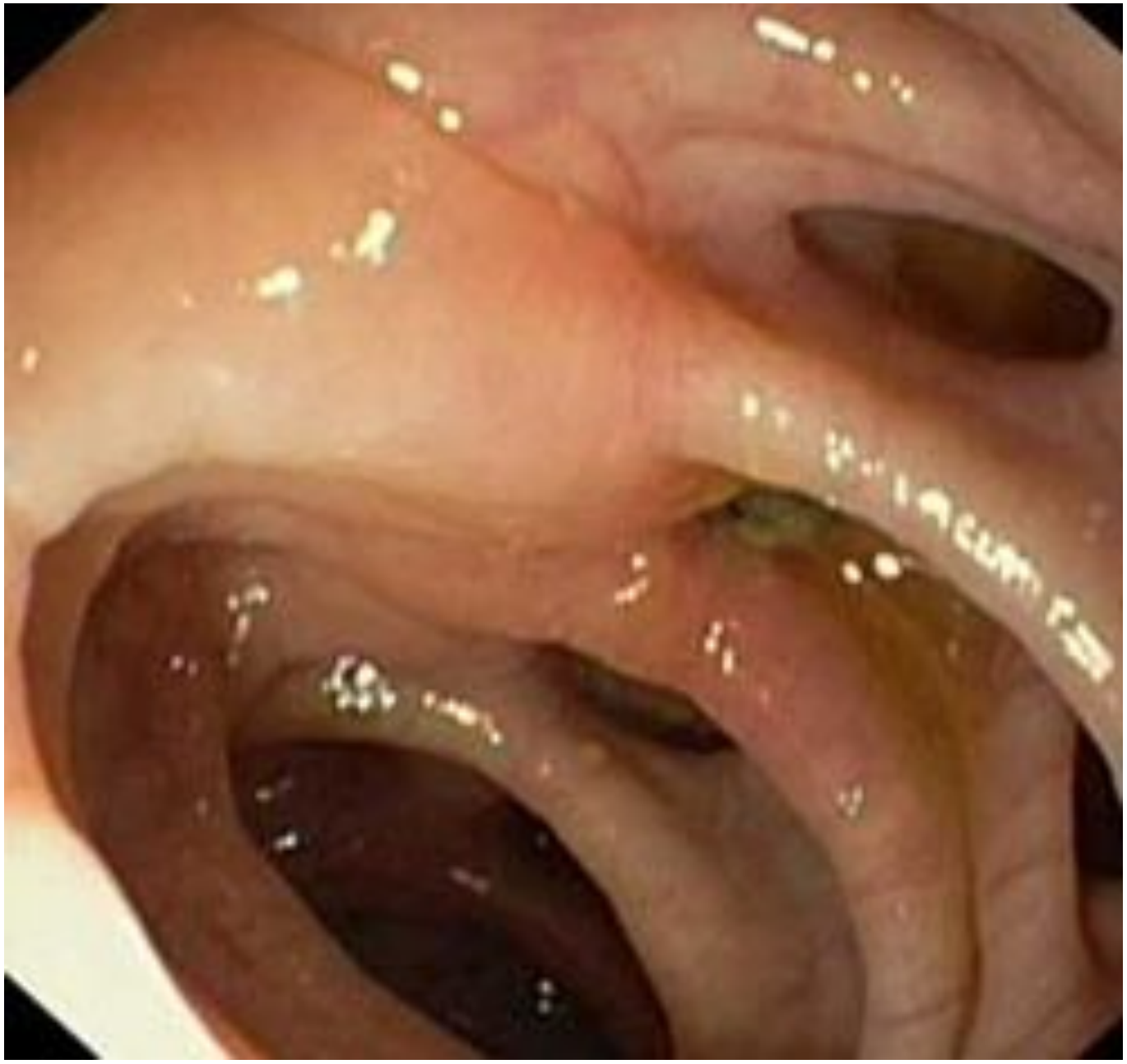
diverticulosis



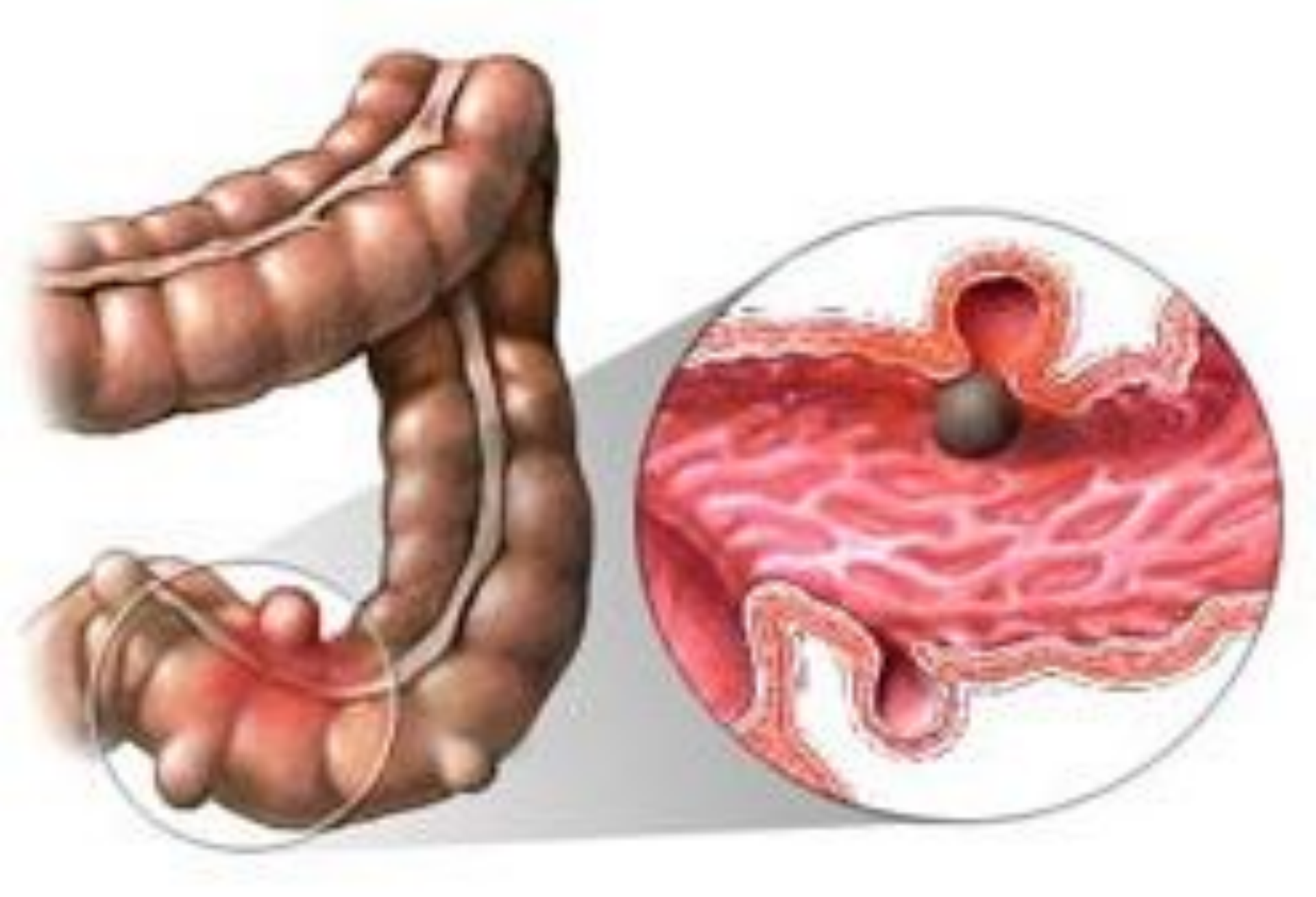
diverticuls



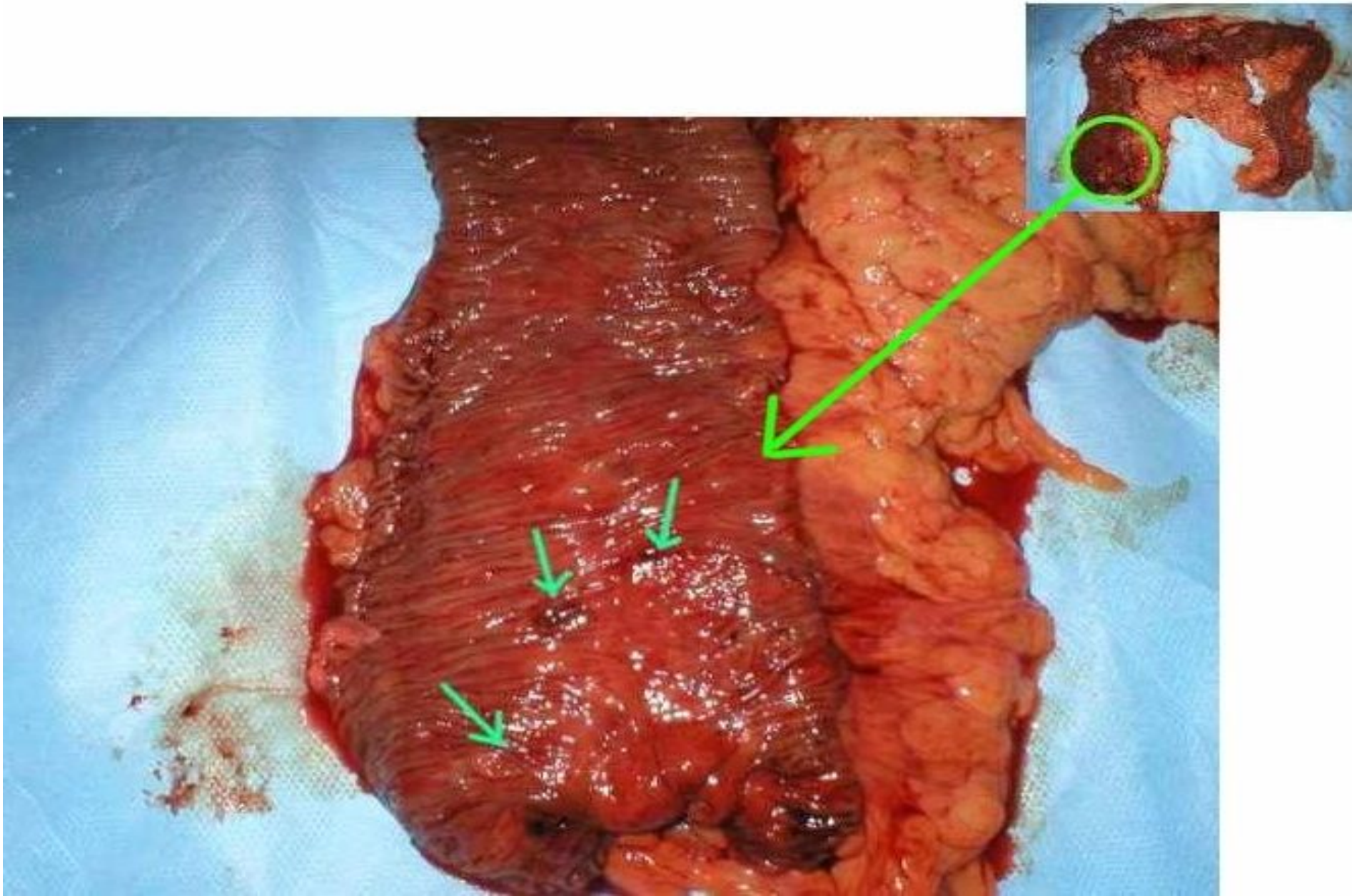
Multiple diverticuls



Diverticul - obturation

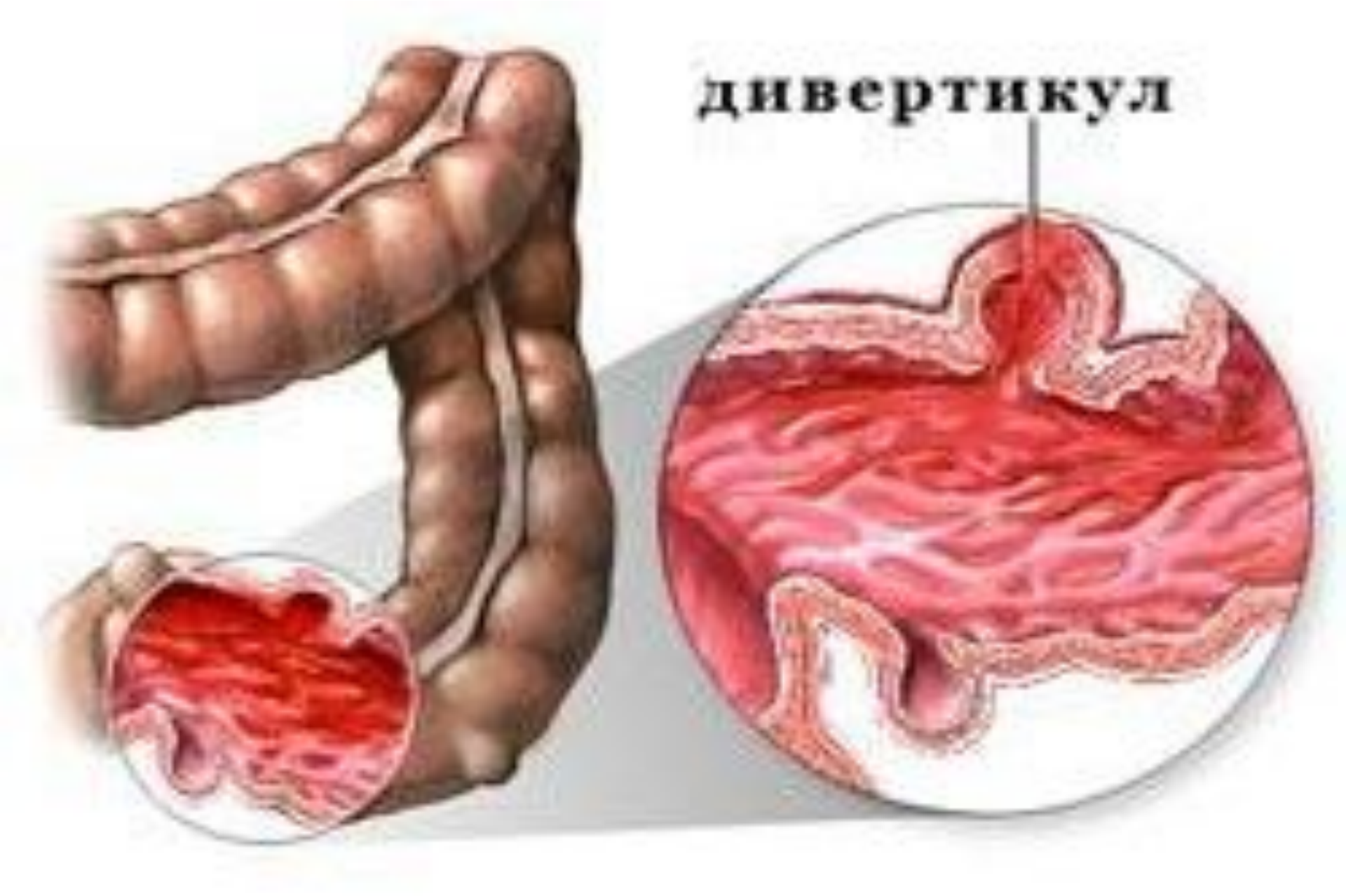


diverticulosis



Fecal stone in a diverticulum

diverticulitis



Clinical features

- Acute diverticulitis is well nicknamed 'left-sided appendicitis'; an acute onset of central abdominal pain which shifts to the left iliac fossa accompanied by fever, vomiting and local tenderness and guarding. A vague mass may be felt in the left ileal fossa and also on rectal examination. Perforation into the general peritoneal cavity produces the signs of general peritonitis. A pericolic abscess is comparable to an appendix abscess but on the left side; a tender mass accompanied by a swinging fever and leucocytosis.

Clinical features

- Chronic divertlcular disease exactly mimics the local clinical features of carcinoma of the colon; there may be diarrhoea alternating with constipation which progresses to a large bowel obstruction with vomiting, distension, colicky abdominal pain and constipation: (note that small bowel obstruction from adhesion of a loop of small Intestine to the inflammatory mass is not uncommon). There may be episodes of pain in the left ileal fossa, passage of mucus or bright red blood per rectum or of melaena, or there may be anaemia due to chronic occult bleeding. Examination reveals tenderness in the left ileal fossa and there is often a thickened mass in the

Diverticulitis

- This results from infection of one or more divertlcula. An inflamed diverticulum may.
- 1. Perforate:
- a) into the general peritoneal cavity;
- b) with formation of pericolic abscess;
- c) into adjacent structures; bladder, small bowel and vagina;
- 2. Produce chronic infection with inflam-matory fibrosis resulting in strictures and obstructive symptoms — acute or chronic.

Diverticulitis

The Hinchey classification - proposed by Hinchey et al. in 1978[1] classifies a colonic perforation due to diverticular disease. The classification is I-IV:

- Hinchey I - localised abscess (paracolonic)
- Hinchey II - pelvic abscess
- Hinchey III - purulent peritonitis (the presence of pus in the abdominal cavity)
- Hinchey IV - faeculent peritonitis.

The Hinchey classification is useful as it guides surgeons as to how conservative they can be in emergency surgery. Recent studies have shown with anything up to a Hinchey III, a laparoscopic washout is a safe procedure[2], avoiding the need for a

diverticulosis, bleeding, subtotal colectomy

diverticulosis, bleeding, subtotal colectomy

Thank`s for attention!