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ABDOMINAL HERNIAS. IRREDUCIBLE, STRANGULATED HERNIAS.

Lecture No.1 for 4th grade students in speciality 31.05.01 «General Medicine»

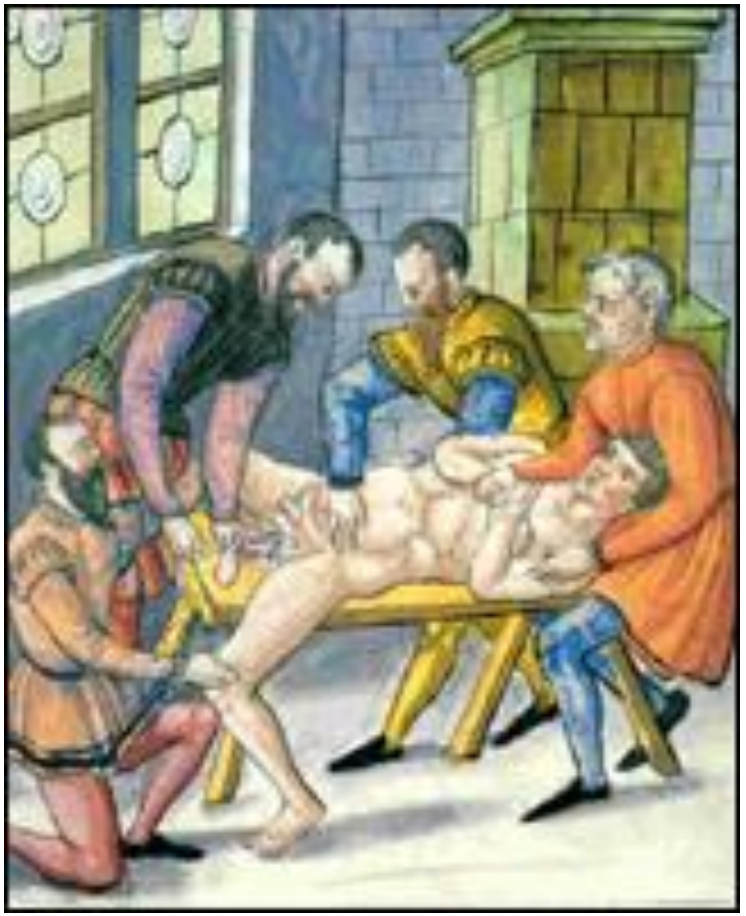
Cand.Med.Sc. Assoc.Prof. Borisov Roman Nikolaevich

Lecture plan

1. Definitions
2. Classification of hernias
3. Structure of hernias
4. Clinical picture and diagnosis of the most prevalent types of hernia
5. Principles of surgical treatment of hernias
6. Modern methods of tension-free hernioplasty
7. Results of surgical treatment of hernias, specific of postoperative management, rehabilitation
8. Specifics in diagnosis and treatment of strangulated hernias

Historical background

- ***Mentioning of hernias is found in works by Hippocrates, (5th century B.C.), Galen (1st century B.C.) and Celsus (1st century B.C.)***
- ***Celsus gave the classical definition of hernia as the protrusion of internal organs through acquired or congenital "gates"***



Historical background

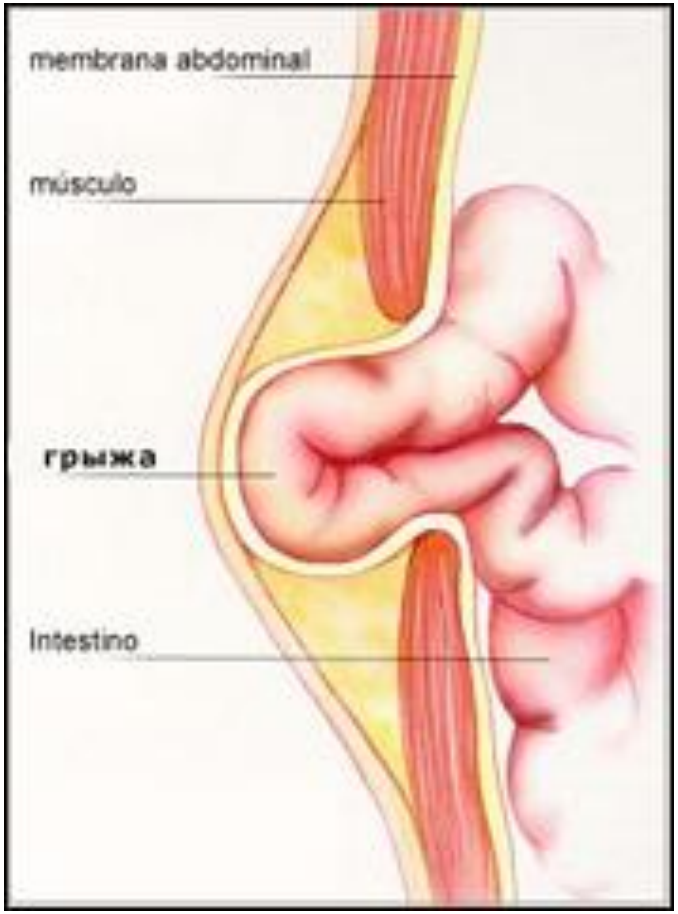
In inguinal hernias, the procedure for male patients were:

- *excision of the hernial sack with a testicle*
- *suturing of the hernial sack with the spermatic cord*
- *narrowing of the hernial orifice after reduction of the internal organs into the abdominal cavity through burning with hot iron*

Definitions

External hernia of the abdomen

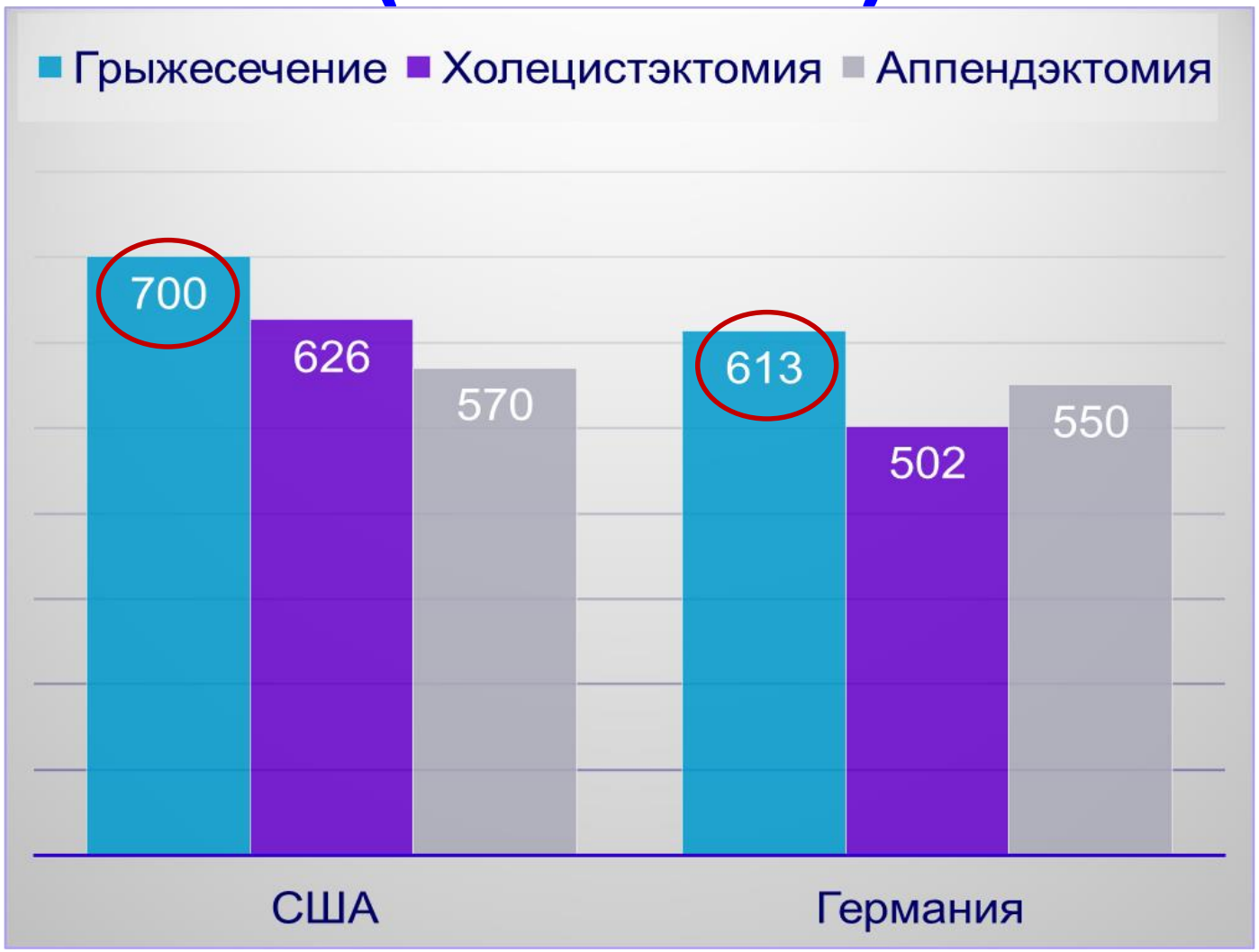
a surgical disease, in which protrusion of internal organs with the adjacent lamina of the peritoneum through different orifices (the “weak spots”) in the muscular-aponeurotic layer of the anterior or posterior abdominal wall and pelvic floor with skin covers staying intact.



Structural elements of the hernia

- **Hernial orifice** (the “weak spots”)
- **Hernial sac** (protrusion of the parietal peritoneum through the hernial orifice)
- **Contents of the hernial sac** (intestine, omentum, urinary bladder)

The number of surgeries (thousands)



Herniotomy in Russia

Over 251,266 surgeries per year

Among them, 49,000 are emergency surgeries!

Из отчёта МЗ РФ за 2018 год

Epidemiology

Subjects with hernia – approximately 2% (up to 4-5%) of the population

Strangulation – 8-20% of subjects with hernia

Mortality rate in strangulated hernia in strangulated hernia is 2-4%, up to 10% in elderly and senile patients

Prof. V.S. Saveliev et al., 2009

Classification of hernias

by the location

External

- ***Inguinal, femoral, umbilical white line of the abdomen, postoperative, lumbar, sciatic, of the obturator foramen***

Internal

- ***Hernias of the natural orifices of the diaphragm, as well as hernias with localisation of the hernial orifice in abdominal pockets and diverticulums***

Anatomical classification

1. Inguinal
2. Femoral
3. Umbilical
4. Post-operative
5. Epigastric
6. Lumbar (upper and lower)
7. Sciatic
8. Spigelian
9. Of the obturator foramen

Etiological classification

1. **Congenital** (with a present hernial sac at the moment of birth)

2. **Acquired** (with a hernial sac formed throughout the life)
   a) *Preconditioned (appearing in typical places)*
   b) *Postoperative*
   c) *Recurrent*
   d) *Traumatic (including postpartum)*
   e) *Neuropathic (in impairment of peripheral nerves due to the paralysis of the relevant muscles of the anterior abdominal wall)*

Pathogenetic classification

1. **Non-complicated** (reducible)

2. **Chronically complicated** (irreducible)

3. **Acute complicated**
   a) *Coprostasis*
   b) *Inflammation*
   c) *Strangulation*

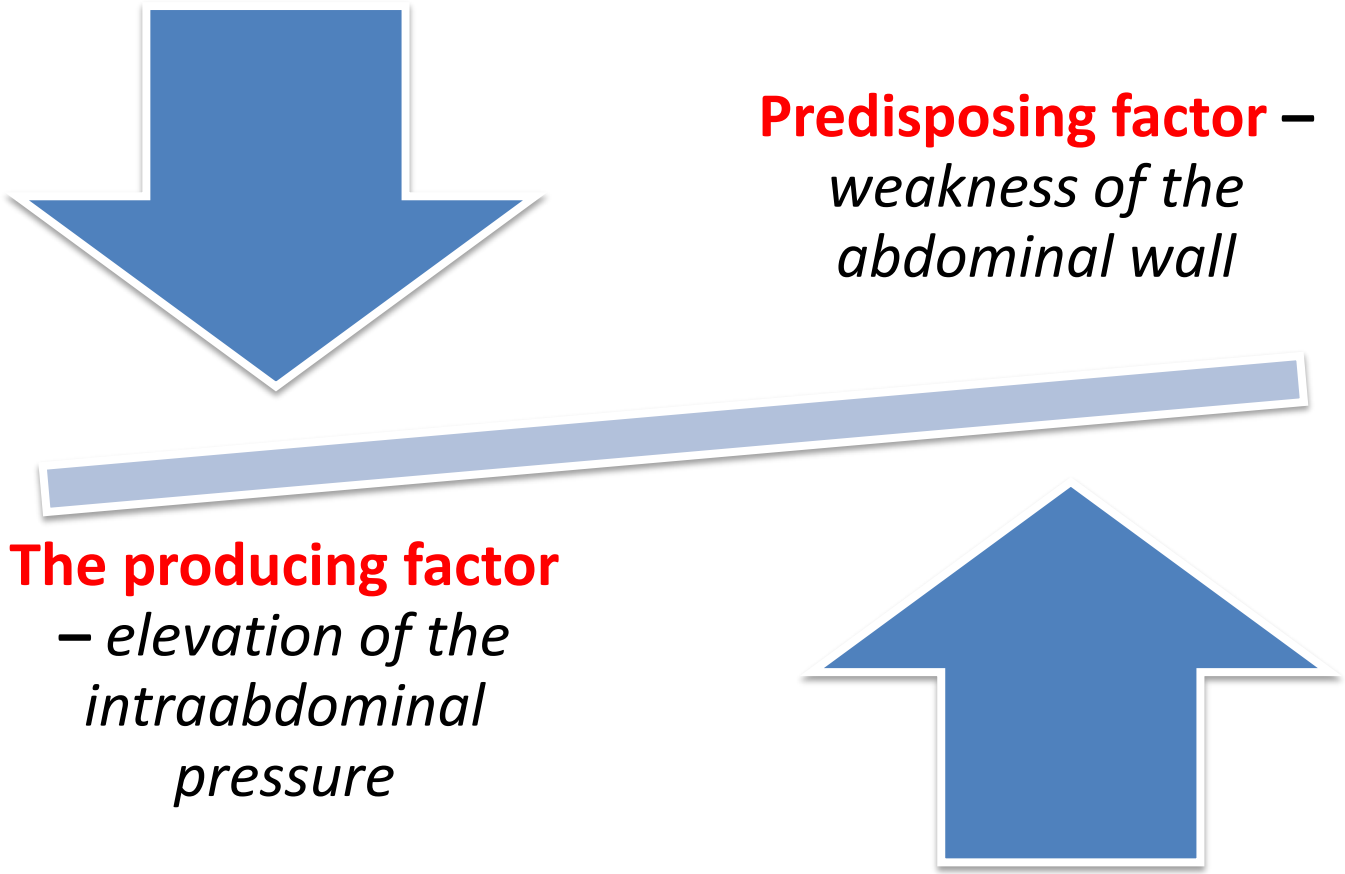
Classification of ventral hernias according to Rath (1999)

Таблица 68-2. SWR-классификация вентральных грыж (по J.P. Chevrel и A.M. Rath, 1999)

S (*Size*) — локализация грыжи	
M	Медиальное расположение
L	Латеральное расположение
ML	Сочетанное расположение
W (*Windlass*) — размер грыжевых ворот	
W1	До 5 см
W2	От 5 до 10 см
W3	От 10 до 15 см
W4	Более 15 см
R (*Relapse*) — рецидив	
R1	Первый рецидив
R2	Второй рецидив и т.д.

PATHOGENESIS

Two main factors in the origin of acquired hernia



Predisposing factor – *weakness of the abdominal wall*

The producing factor – *elevation of the intraabdominal pressure*

Weakness of the abdominal wall:

1. Local:

a) congenital

b) resulting from the anatomical structure, the so-called “weak spots” of the abdominal wall: inguinal and femoral canals, the umbilical ring, the white line, etc.

c) resulting from surgeries (postoperative), trauma (posttraumatic)

d) resulting from cutting the nervous fibres or damage to the spinal cord

Weakness of the abdominal wall:

2. Associated with the general condition of the organism:

- **age-related –“senile looseness of tissues”**
- **slimming down due to starvation or disease**
- **excessive obesity**
- **stretching of the abdominal wall during pregnancy, ascites, etc.**

Increase in the intraabdominal pressure

- during excessive physical effort
- during playing wind musical instruments, blowing glass, etc.
- during delivery, especially prolonged
- during challenged defecation (constipations) and urination (urethral stones, phimosis, prostate adenoma, etc.)
- in continuous cough (chronic bronchitis, bronchiectasis, tuberculosis, pertussis)

Preconditioning factors: inherited predisposition

- The inherited specifics of anatomical structure of the abdominal wall
- Impairment of collagen metabolism
- Congenital weakness of connective tissue (“weak constitution”)

Hernia – an insignificant surgical problem?

A questionable judgement……..

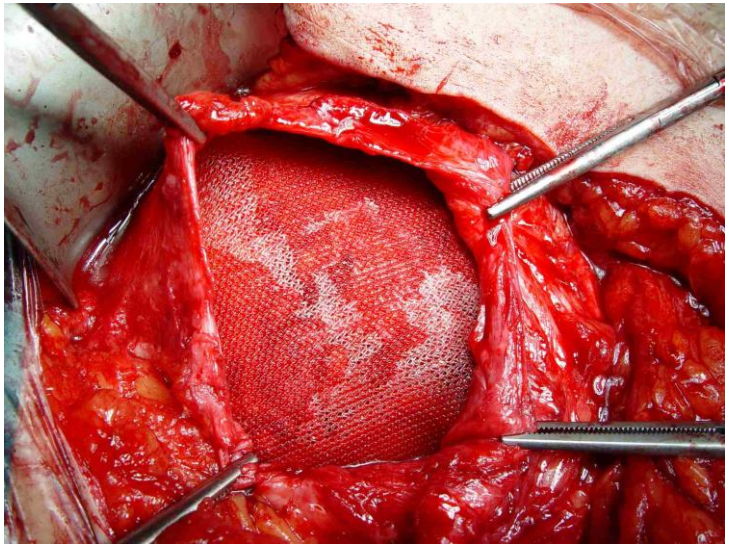
Large umbilical hernia (diameter of the hernial orifice over 10cm)

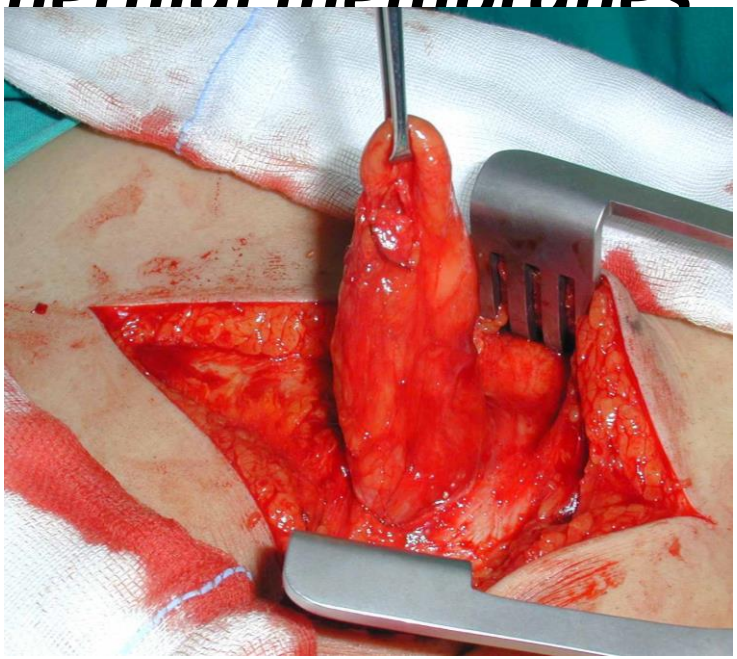
Strangulated postoperative ventral hernia, phlegmon, perforation of the hernial sac

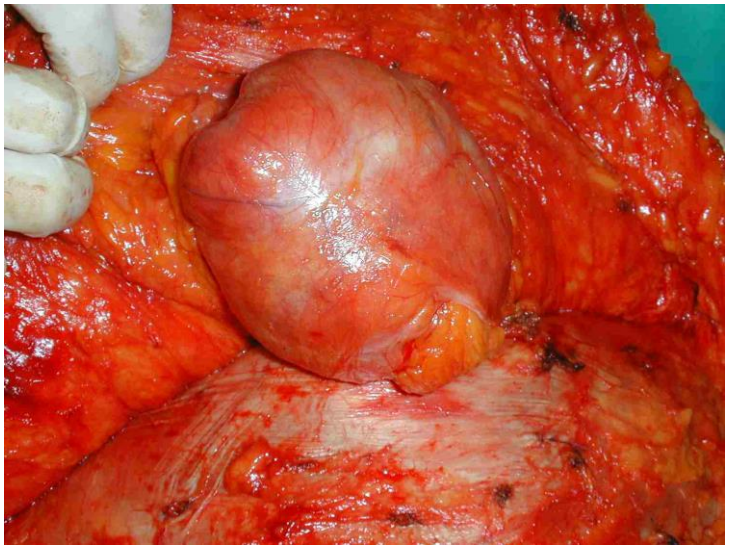
Structure of the hernia

The distinguished parts:

- ***hernial orifice***
- ***hernial sack***
- ***hernial content***
- ***hernial membranes***







Hernial orifice

A defect (an orifice) in the abdominal wall, through which the hernia protrudes. Most oftn, these are congenital "weak spots":

- the place of exit of the spermatic cord, of the umbilical cord, of vessels and nerves
- for acquired hernias – those formed as the result of trauma and surgeries

<u>The sizes distinguished are:</u>

- small (up to 2cm in diameter)
- medium (2-4cm)
- large (over 4cm in diameter)

Hernial sac

Protrusion of the parietal peritoneum (in the form of diverticulum) through the hernial orifice

– Shape-wise, they may be piriform, cylindrical, spherical, in the shape of “hourglass”, multi-chambered

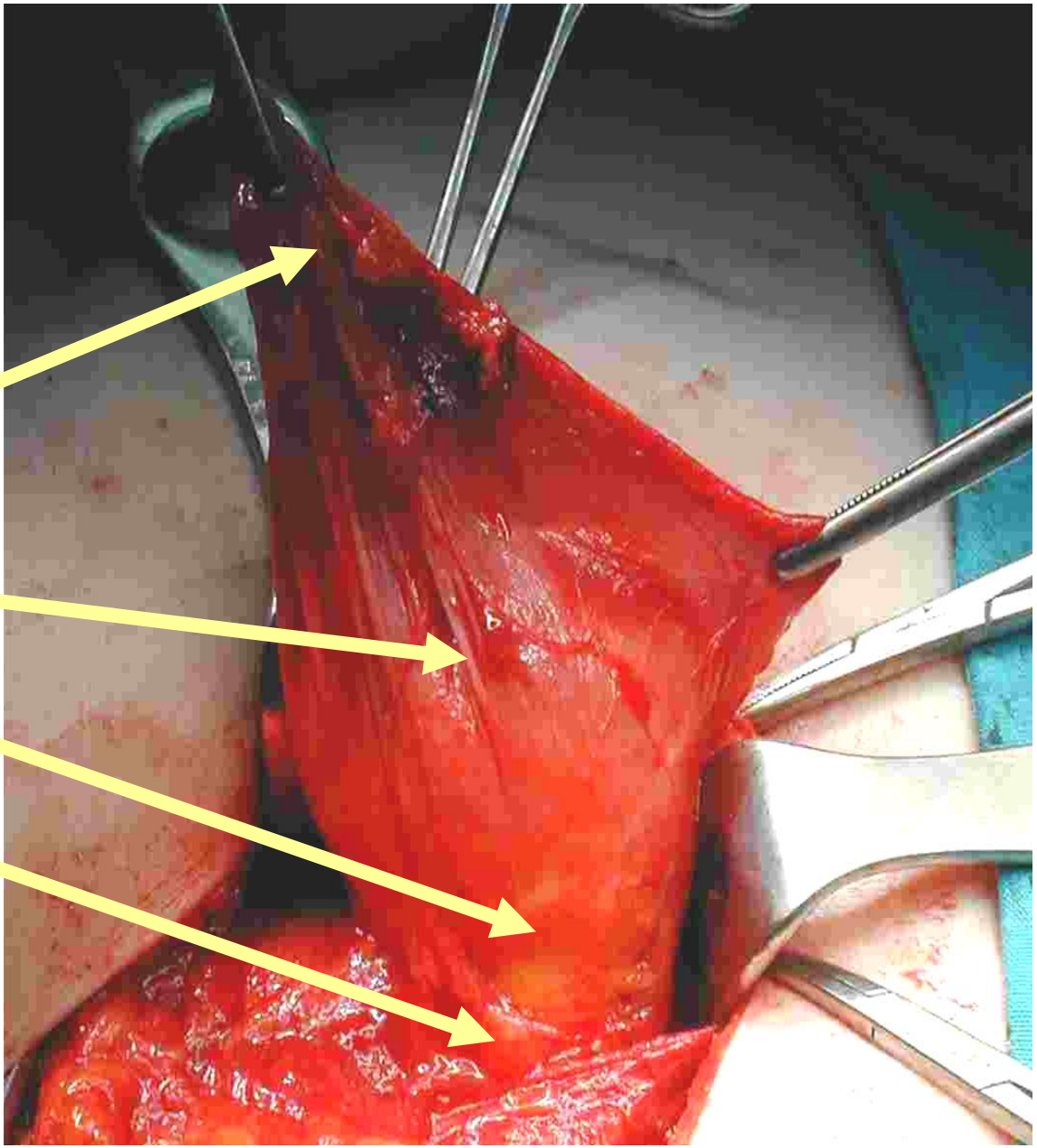
–The parts distinguished are the mouth, the neck, the body and the floor

Pathological anatomy

– in recently formed hernias: thin, semi-transparent, smooth (unchanged peritoneum)

–in old hernias: thick, with commissures, with scarification, the external side is often covered with preperitoneal fat

Hernial sac

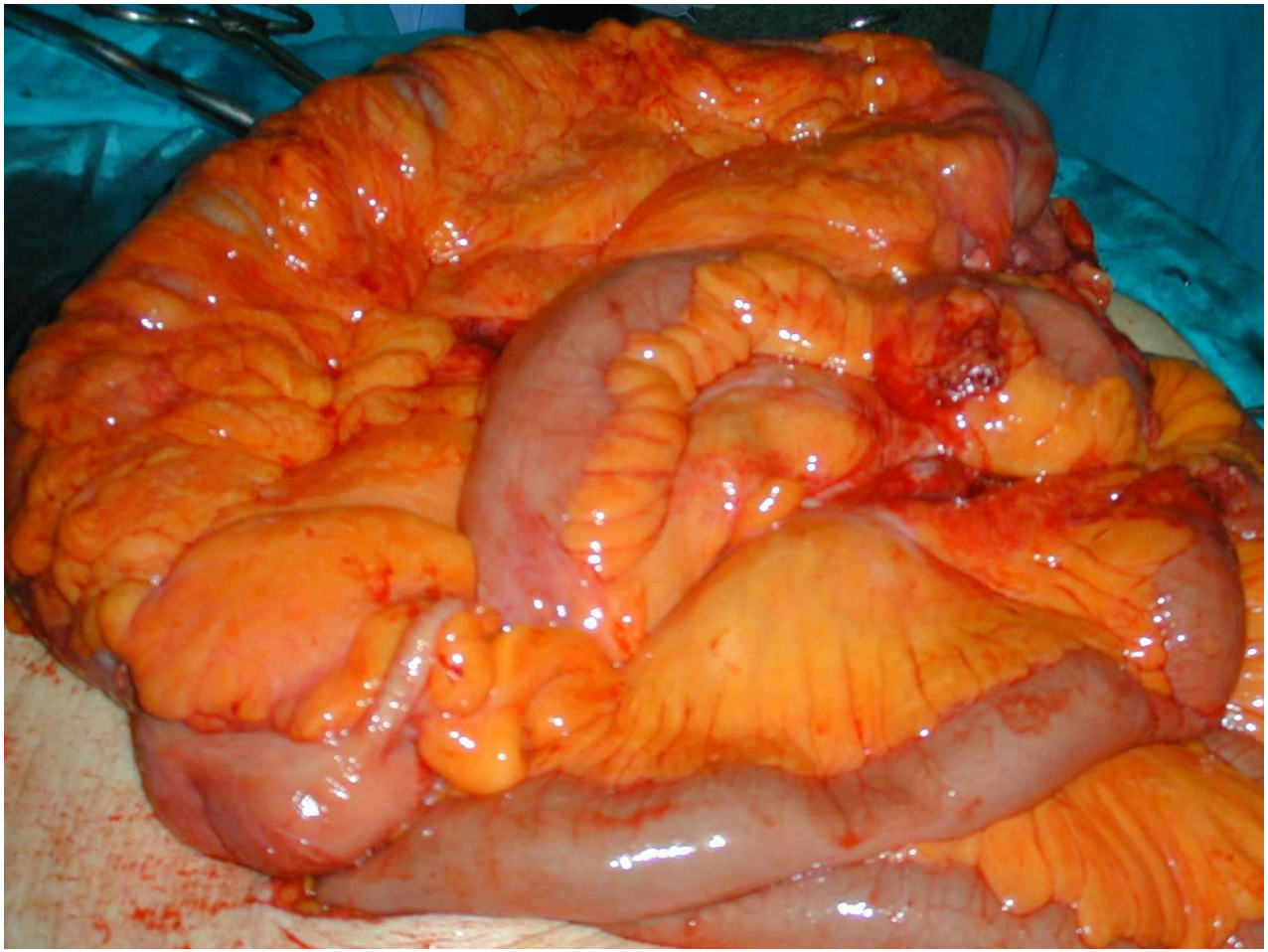


Hernial content

Any organ of the abdominal cavity

- Most often the small intestine and the omentum
- Less often, parts of the large intestine supplied with mesentery (cecum, transverse and sigmoid colon), the vermiform process, fat appendages
- Possible, uterine tubes and the ovary

The content (small intestine, omentum) of a large umbilical hernia (>10cm)



Clinical picture

The disease develops gradually, rarely outright after physical strain, cough

Subjective sensations:

- **Pains of different intensity and irradiation, intensify in the vertical position, during physical effort**
- **The pain is more pronounced in the initial period, sometimes may be absent**
- **Dyspeptic manifestations: nausea, vomiting, belching, constipation**
- **Dysuria (in sliding hernias)**

Clinical picture

Objective data:

- **Presence of hernial protrusion – spherical or oval swelling with unchanged skin in a specific place that appear in the vertical position or during straining effort**
- **The reducibility (in the lying position) spontaneously or with one's hand is a classical symptom of hernia**
- **Presence of hernial orifice**
- **The phenomenon of cough impulse**
- **Percussion data: (tympanites in presence of intestine in the lesser sac, dullness in presence of the omentum)**
- **Auscultation data: murmur, especially at the moment of reducing the intestine**

PRESENCE OF HERNIA IN A PATIENT IS AN INDICATION TO SURGICAL TREATMENT!!!

The surgery consists of two stages in all cases:

1. **The herniotomy itself: separation of the hernial sac, its opening, reduction of the internal organs, suturing and tying of the sac in the neck area and its dissection, which is performed in the same fashion for all forms of the hernia**
2. **Plastic surgery (suturing) of the hernial orifice is performed differently even for the same form of hernia. Due to this, different methods for herniotomy are distinguished.**

Anaesthesia:

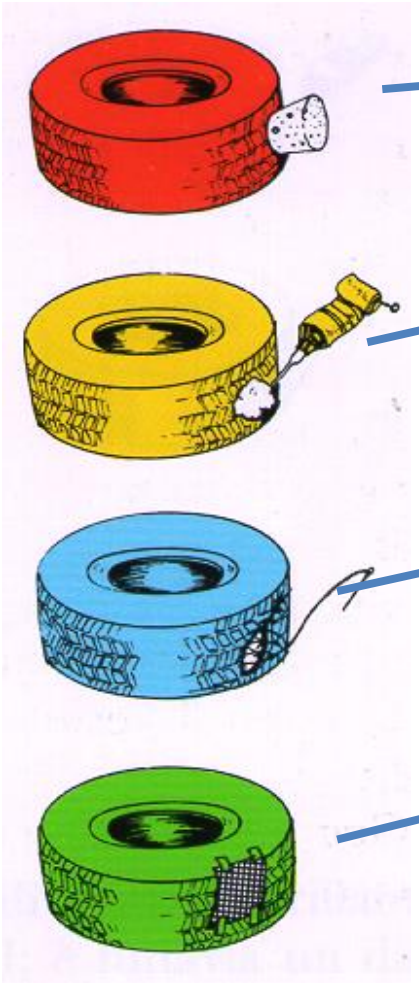
1. **Local: infiltration (Novocain, Lidocaine, Naropin)**
2. **Narcosis is applied in all other hernia types in adults including those complicated by large postoperative hernias as well as for children.**

Contraindications to the surgery:

- **Absolute:**
  - acute infection
  - severe diseases (tuberculosis, malignant tumours)
  - pronounced respiratory and cardiac failure, etc.

- **Relative:**
  - early age (under six months)
  - senility
  - final 2-3 months of pregnancy
  - urethral strictures
  - prostate adenoma

Principles of hernioplasty



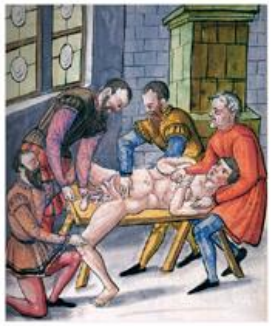
Obturator

Glue

Restoration with tension

Tension-free method

Without meshes



Eduardo Bassini
1887

Earle Shouldice

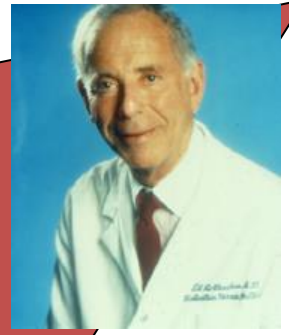
1945

Francis Usher

1958 + 1963

René Stoppa

1986



Irving
Lichtenstein
1986

With meshes

Possibilities in prosthetic surgery

Before surgery

After surgery

Tension methods for hernia treatment (plastic surgery using local tissues)

1. Groin hernia:

- ***Strengthening of the anterior wall: plastic surgeries according to Martynov, Zhirar, Spasokukotsky, Oppel, etc.***
- ***Strengthening of the posterior wall: the methods according to Bassini, Mac Vay, Kukudzhanov, Postemskov, Sholdaice***

2. Umbilical hernia:

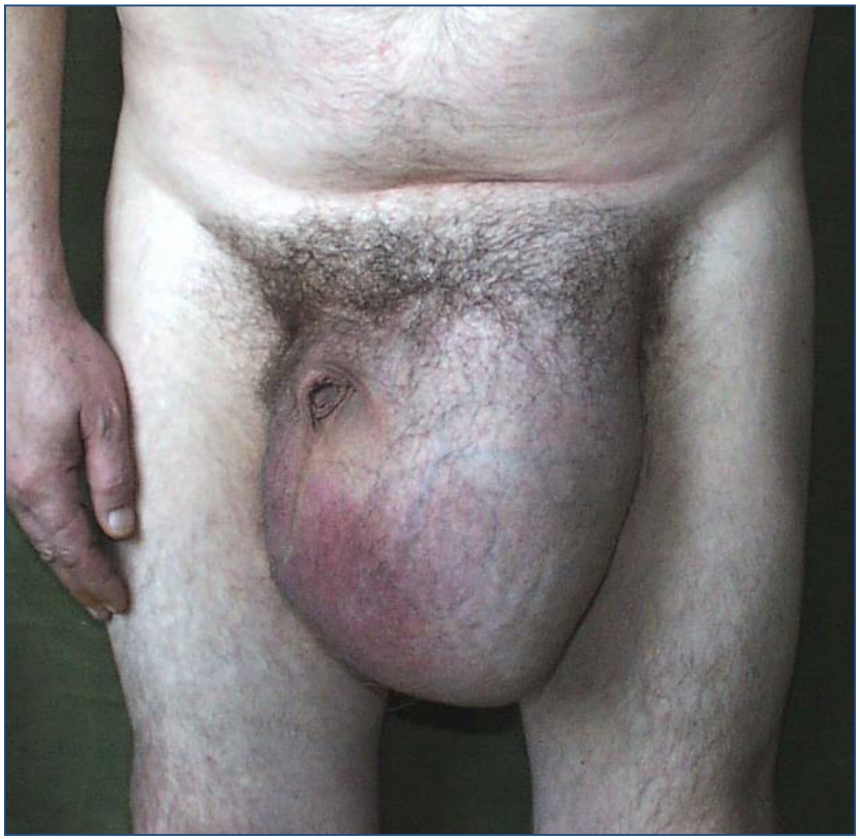
- ***methods according to Sapezhko, Mayo, Lexer***

3. Femoral hernia:

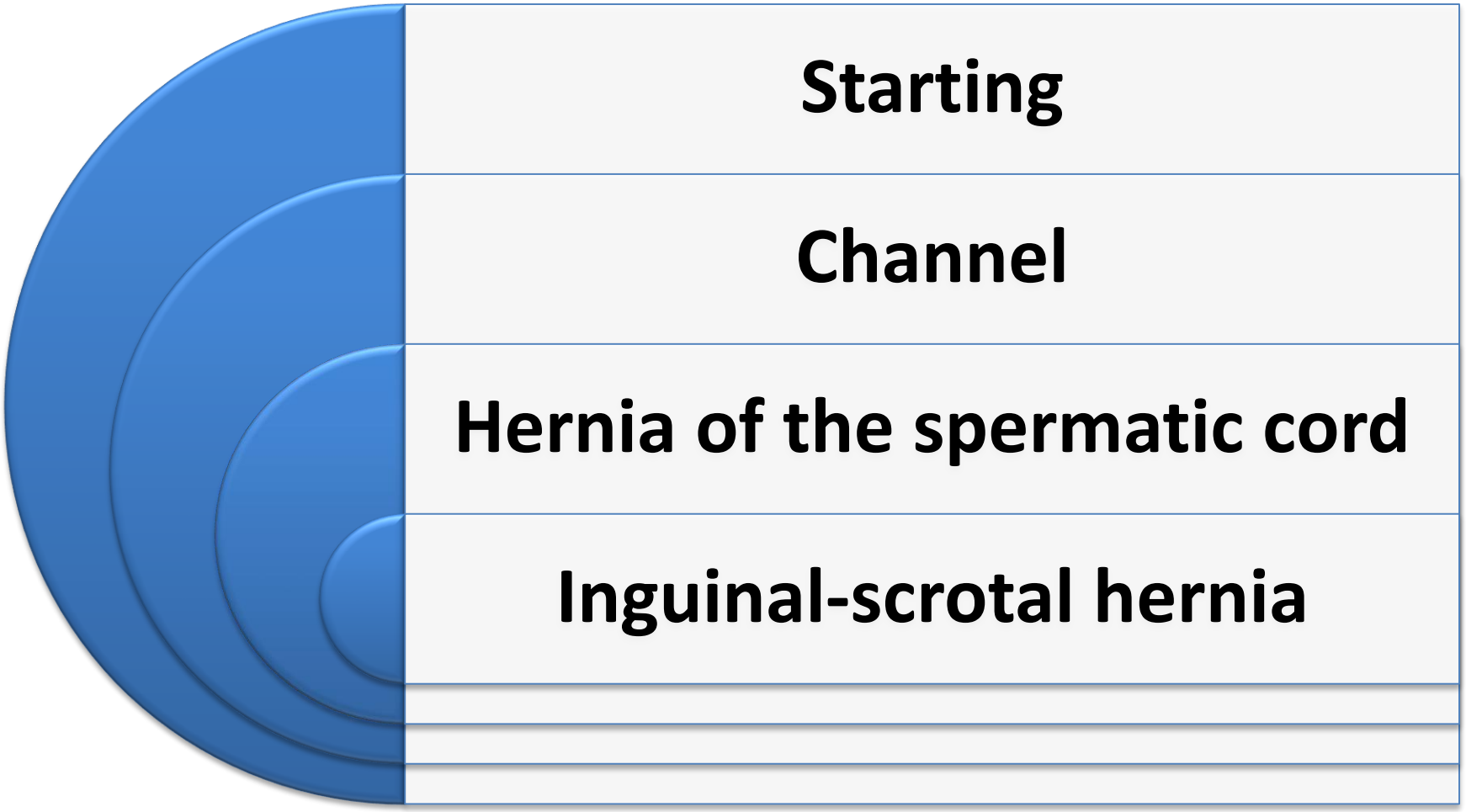
- ***Femoral approach – by Ruggi-Parlaveccio***
- ***Inguinal approach –Bassini technique***

Inguinal hernias

Oblique inguinal hernia



Classification



Classification of inguinal hernias according to Nyhus (1993)

Type I – oblique hernias with the normal size of the deep inguinal ring. Usually, these occur in childhood and in young subjects. In such cases, the hernial sac does not extend beyond the inguinal canal and the posterior wall of the latter is absolutely intact in the projection of the inguinal fossa.

Type II – oblique hernias with displaced and widened deep inguinal ring that is not accompanied by protrusion of the posterior wall of the inguinal canal. In such cases, the hernial sac may occupy the whole inguinal canal but does not fall into the scrotum (may be identified in the inguinal area during straining effort).

Classification of inguinal hernias according to Nyhus (1993)

Type III is subdivided into three subgroups:

III A – all direct inguinal hernias

III B – oblique inguinal hernias with a large deep inguinal ring with enlarged diameter (as a rule, these are inguinal-scrotal hernias)

III C – femoral hernias

IV тип – all recurrent hernias

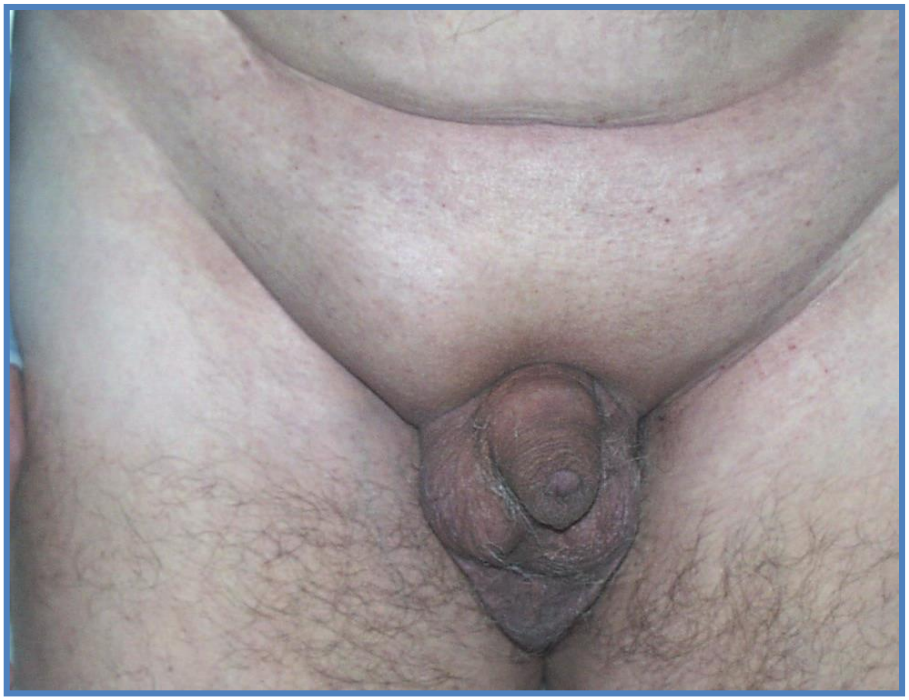
IV A – direct inguinal hernias

IV B – oblique inguinal

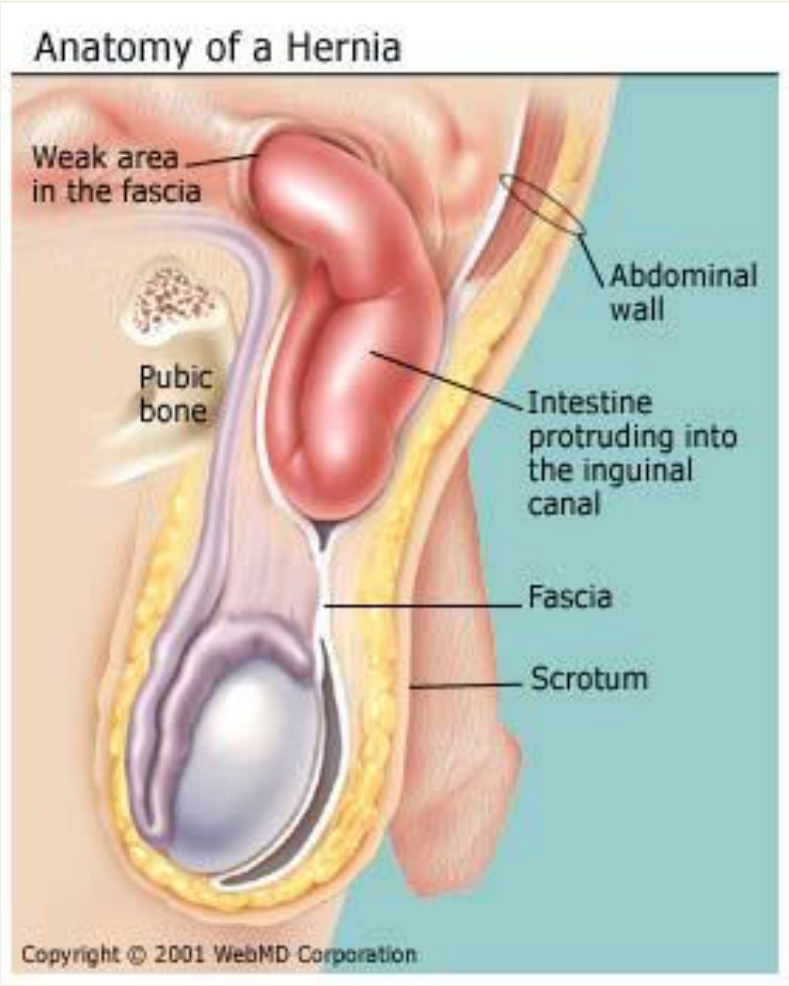
IV C – femoral

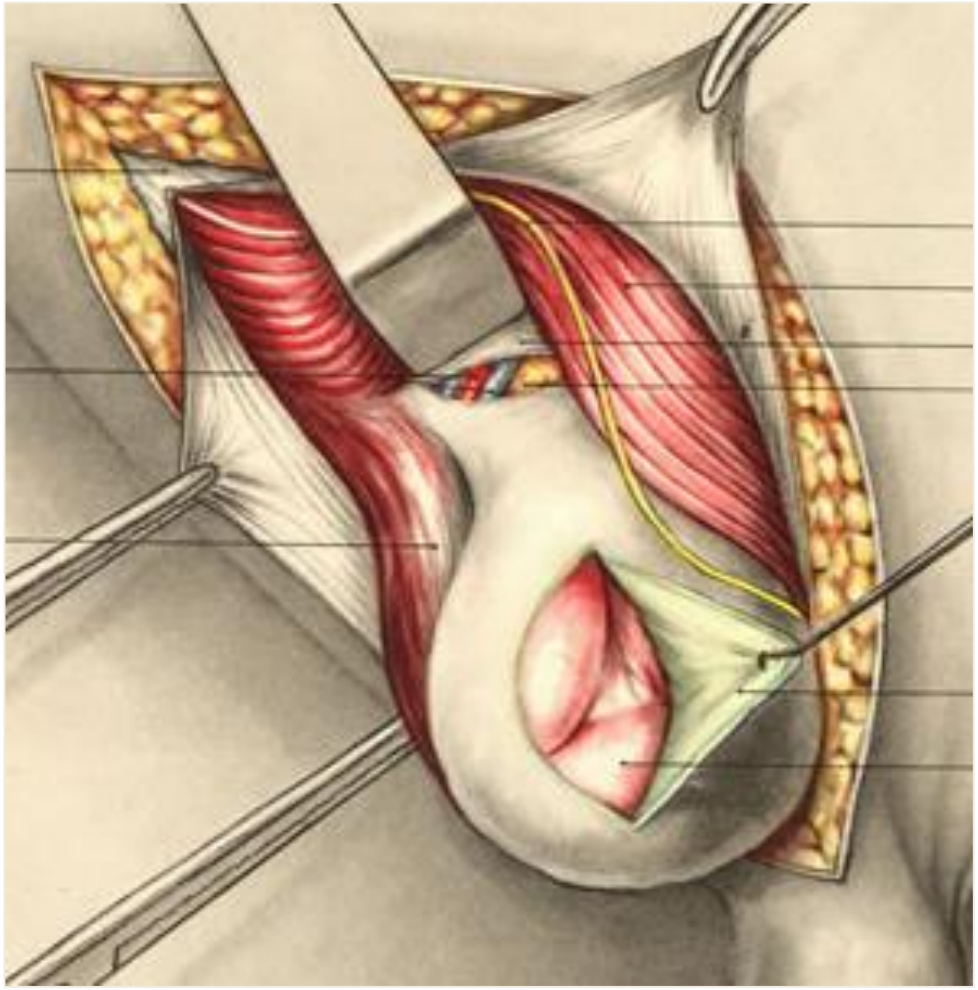
IV D – combined

Direct inguinal hernia



Protrusion of the anterior abdominal wall in the area of the inguinal fossa

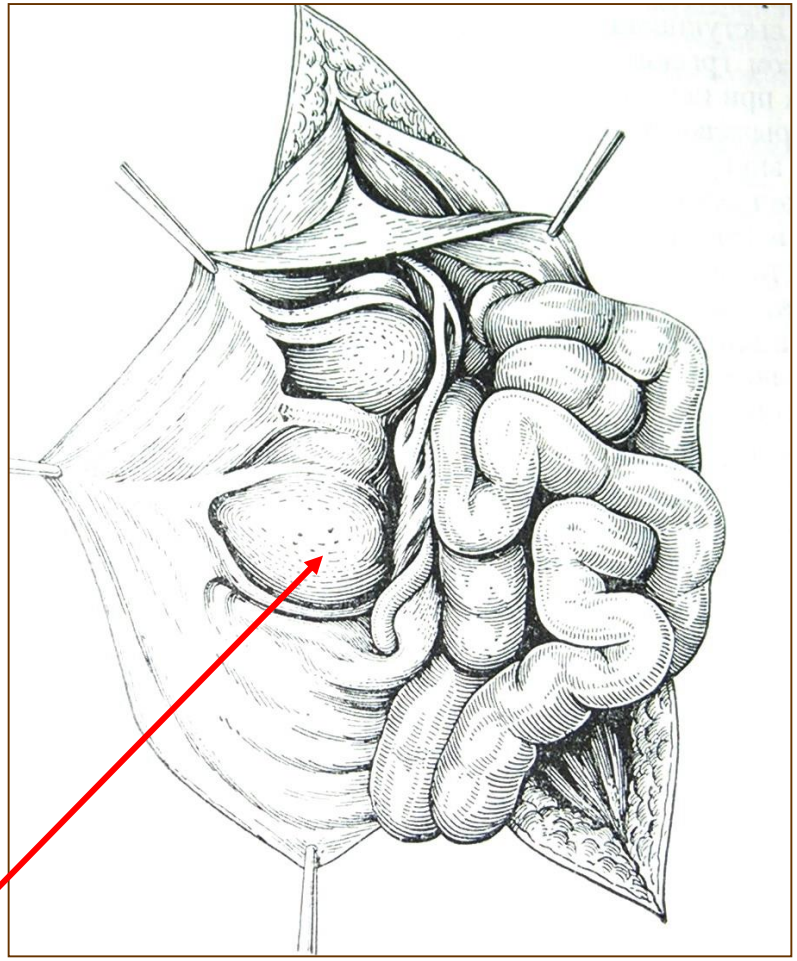




Sliding hernia

Visceral peritoneum participates in formation of the hernial sac

0,6 – 3,9%



Dome of the cecum with the vermiform process

Sliding hernia

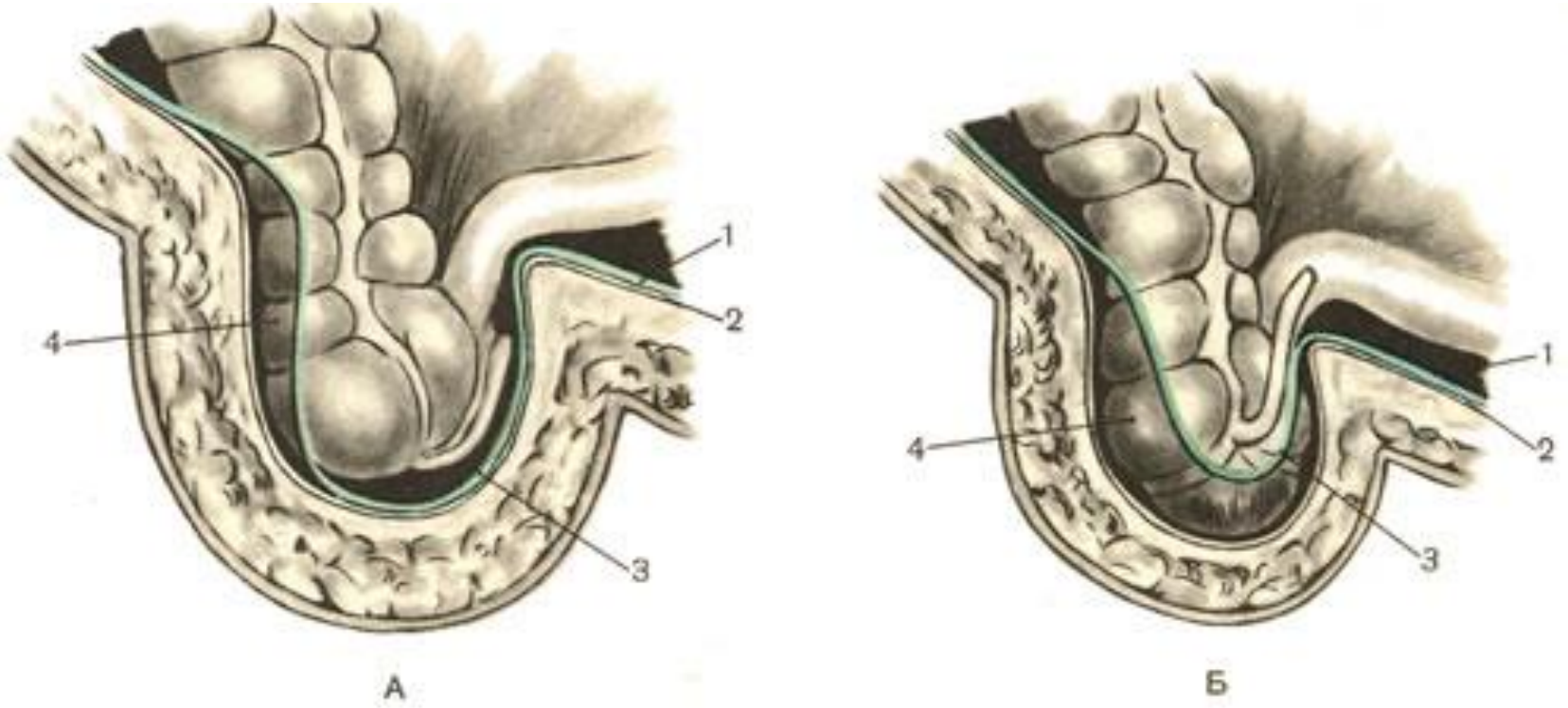
- Of the cecum
- Of the urinary bladder
- Of the female sex organs

Often

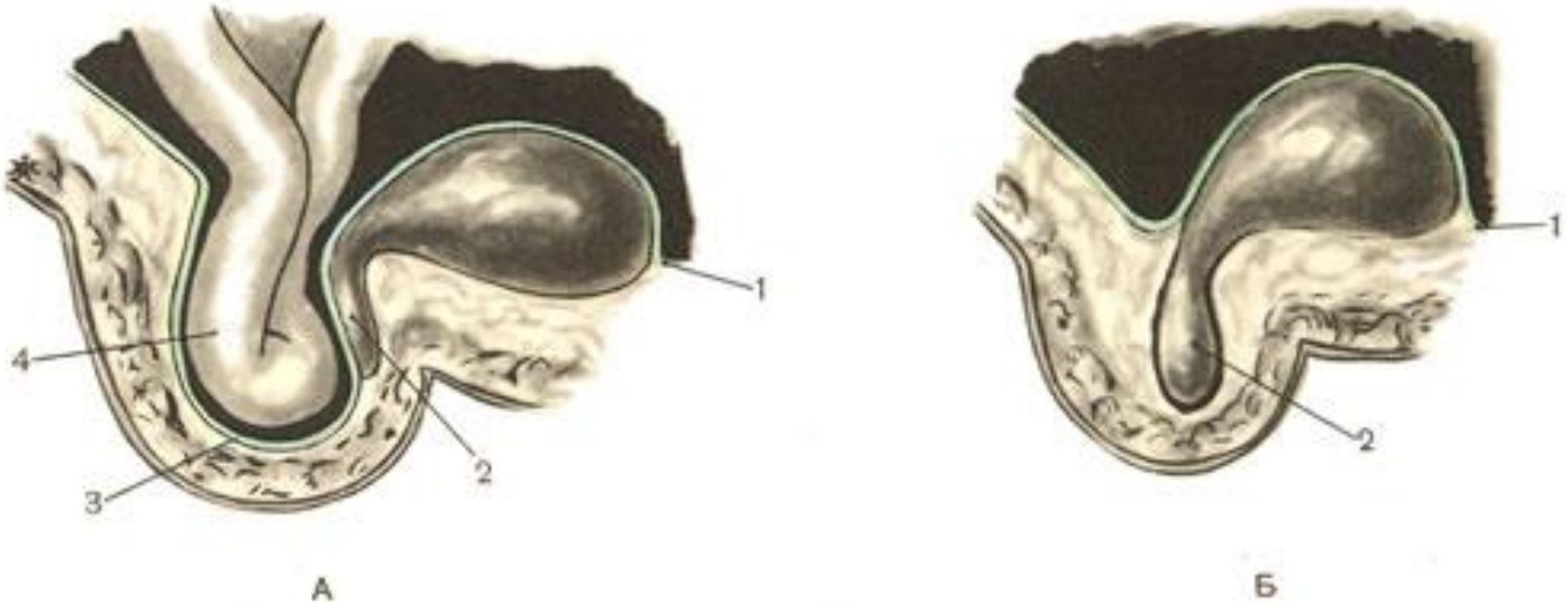
Rarely

- Of the ascending colon
- Of the descending colon
- Of the sigmoid colon
- Of ureters and kidneys

Sliding hernia of the cecum



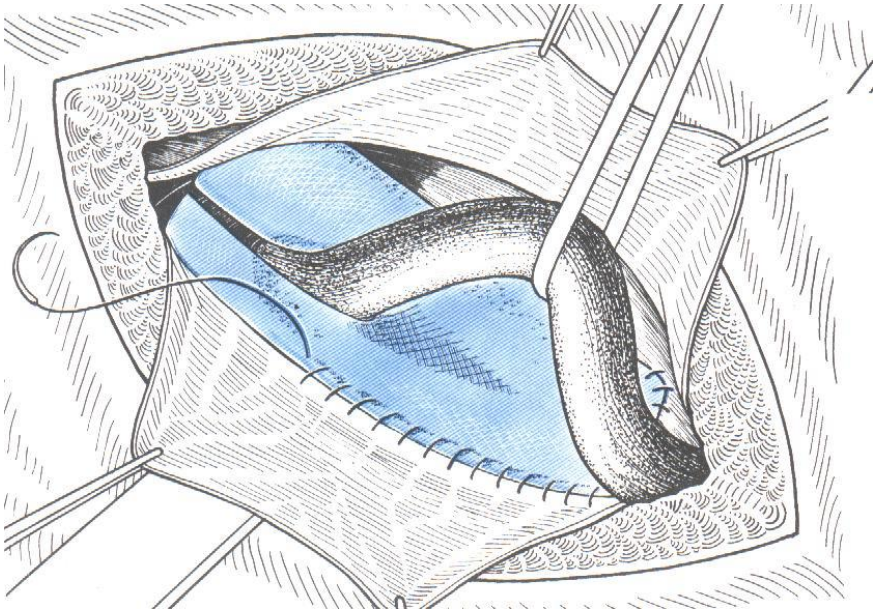
Sliding hernia of the urinary bladder

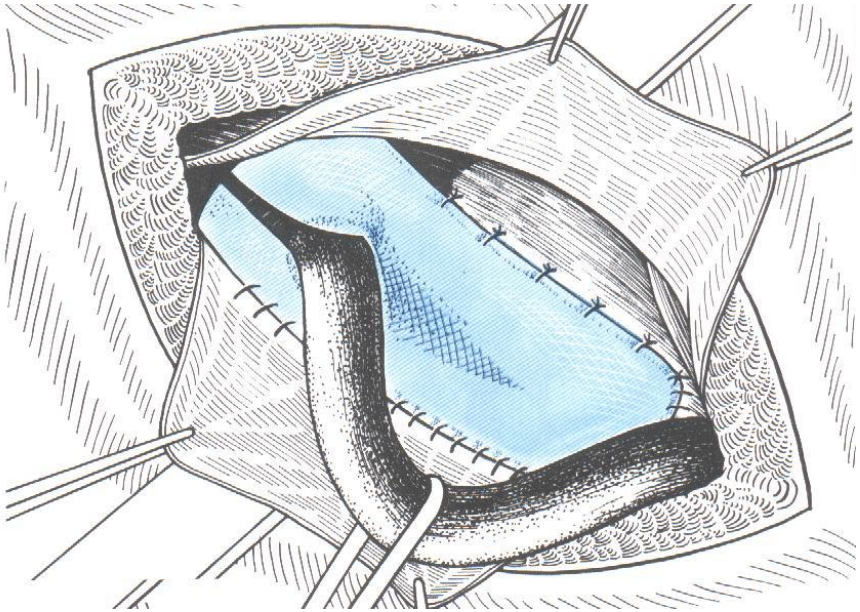


Surgical treatment

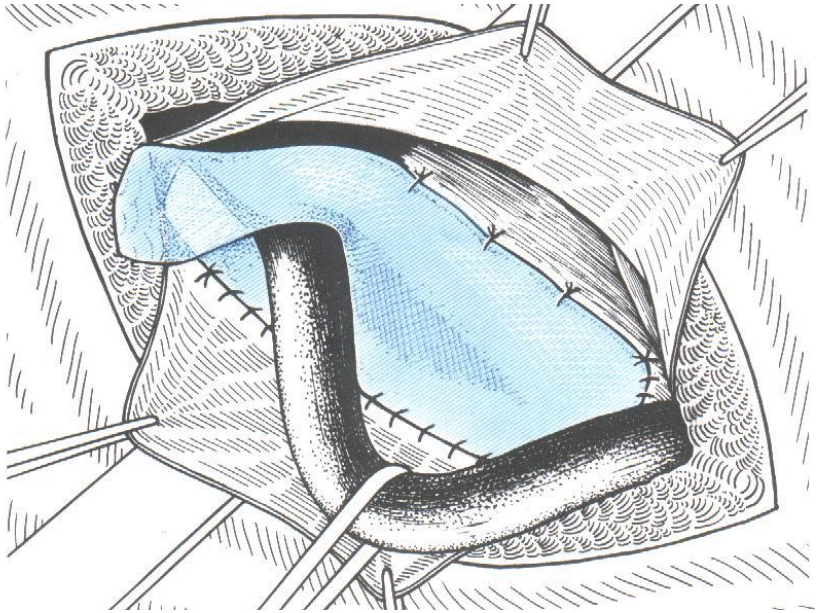
- Herniotomy
- Treatment of the hernial sac
- Plastic surgery of the hernial defect

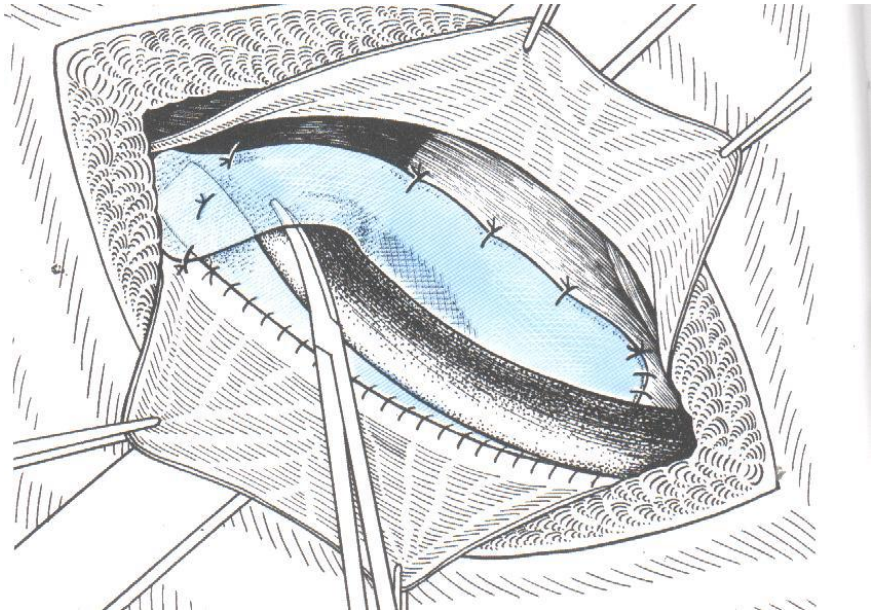
Lichtenstein technique



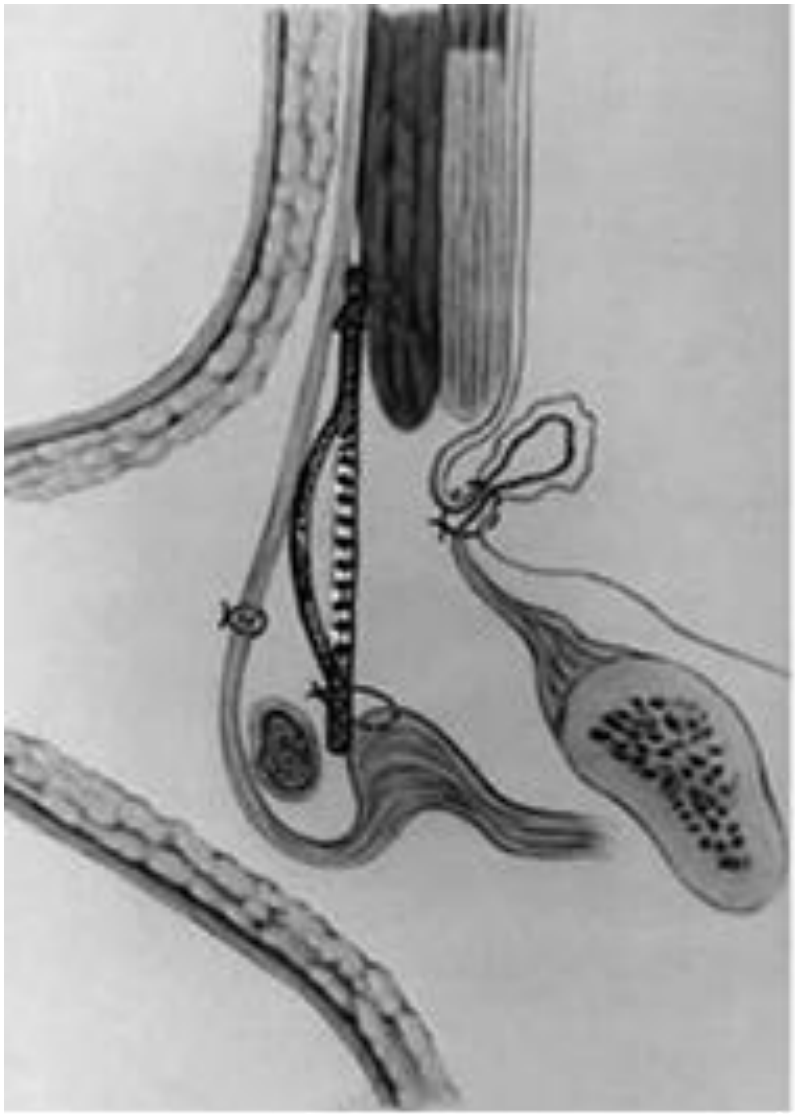


Lichtenstein technique



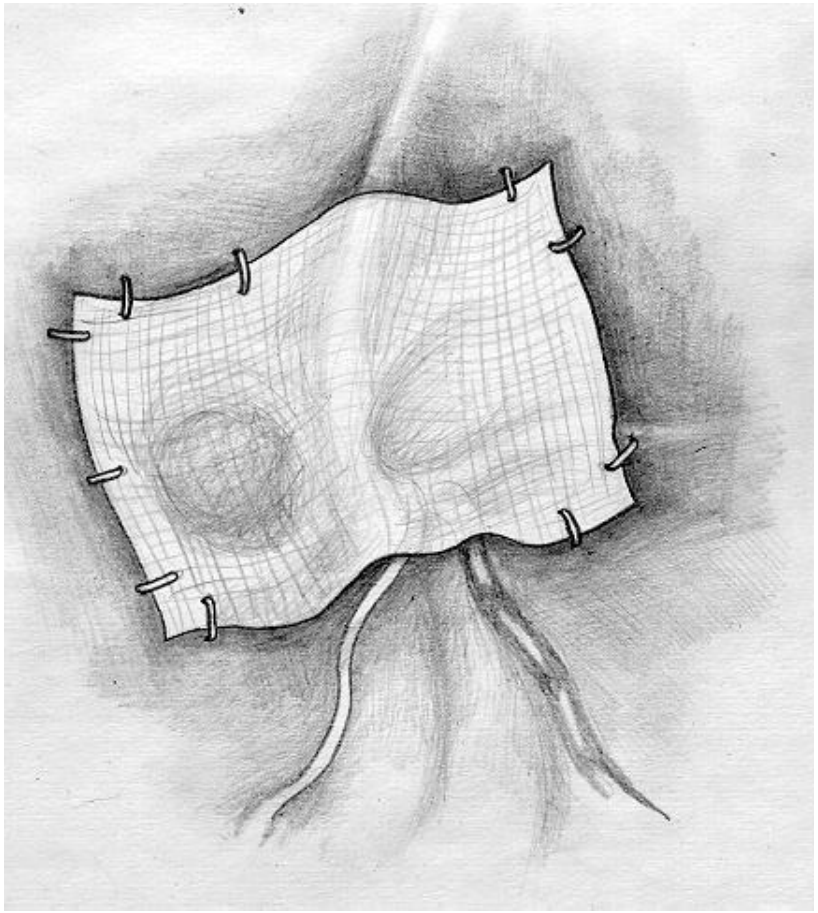


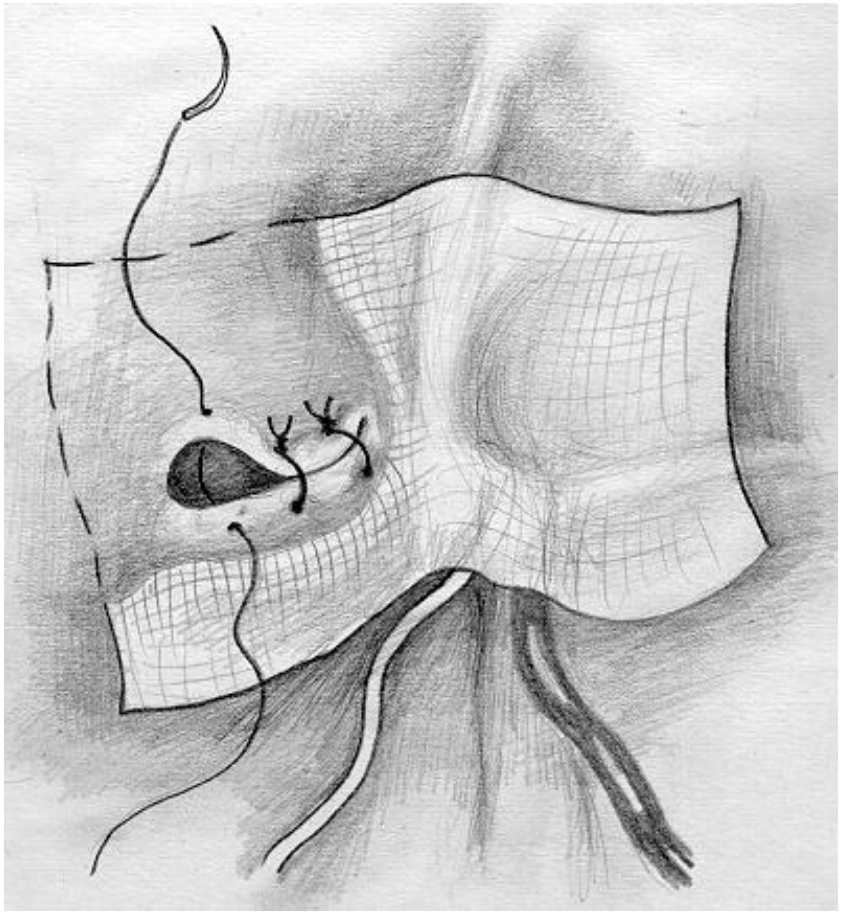
Lichtenstein technique



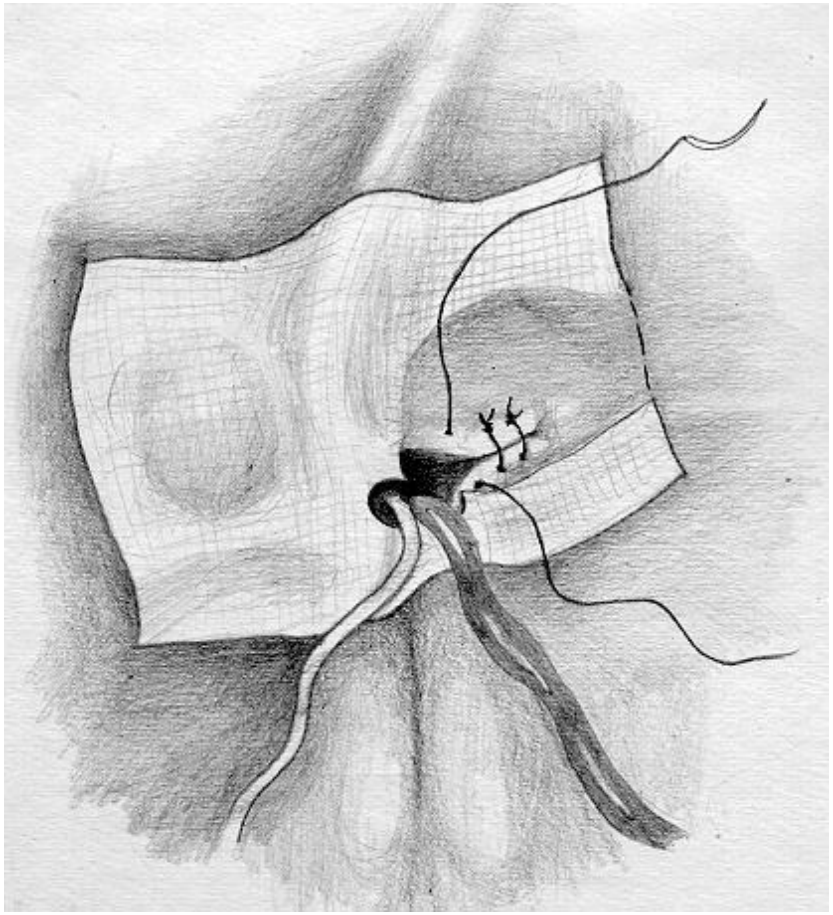
Laparoscopy hernioplasty

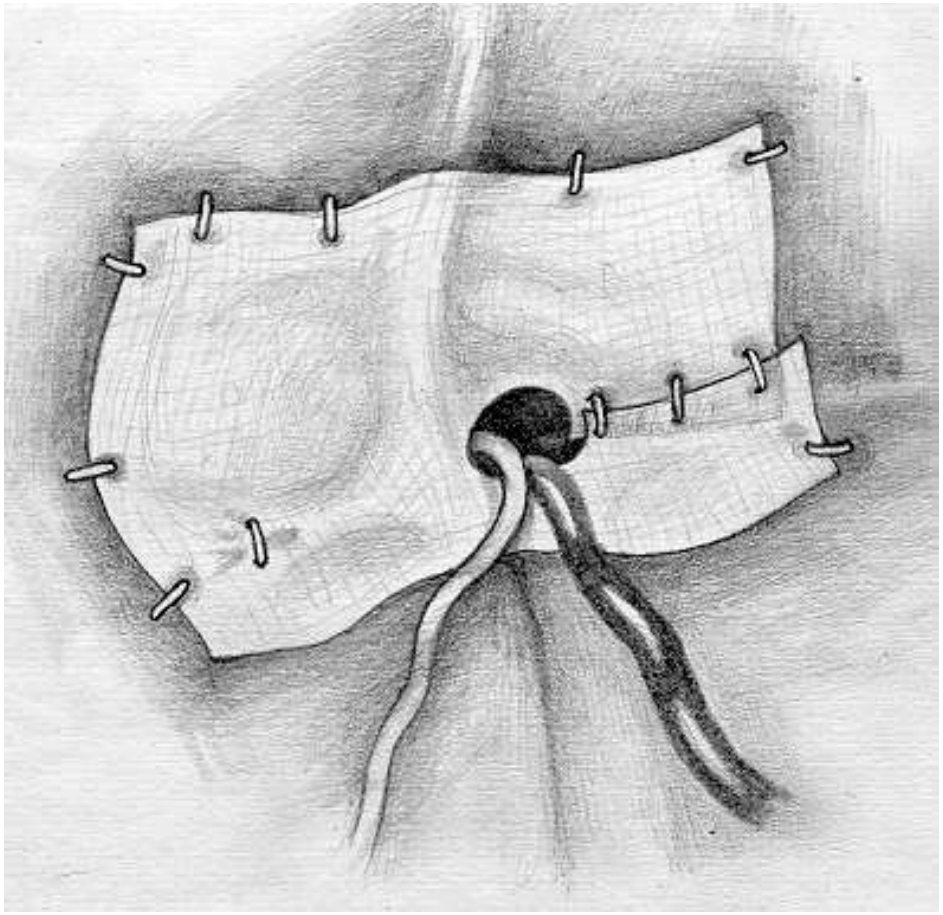
Direct inguinal hernia





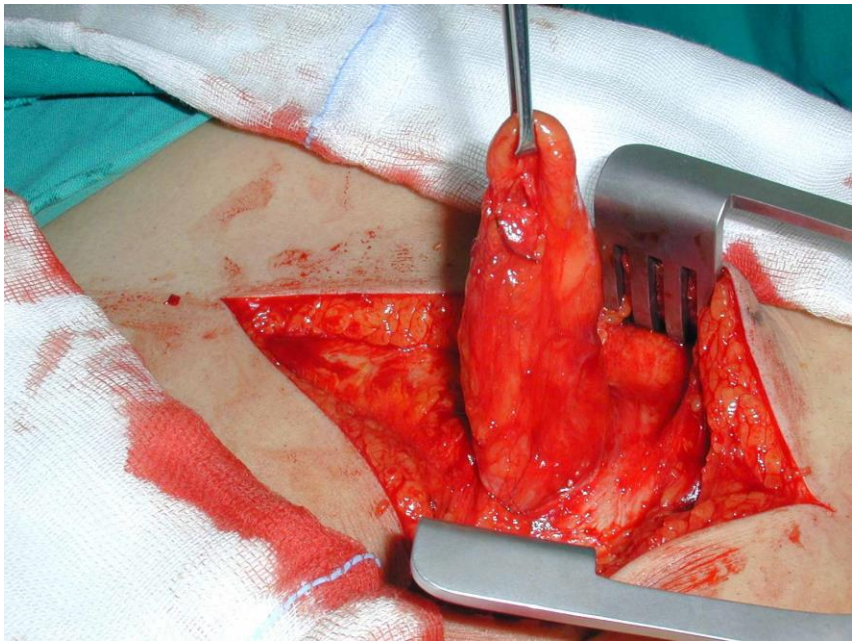
Oblique inguinal hernia

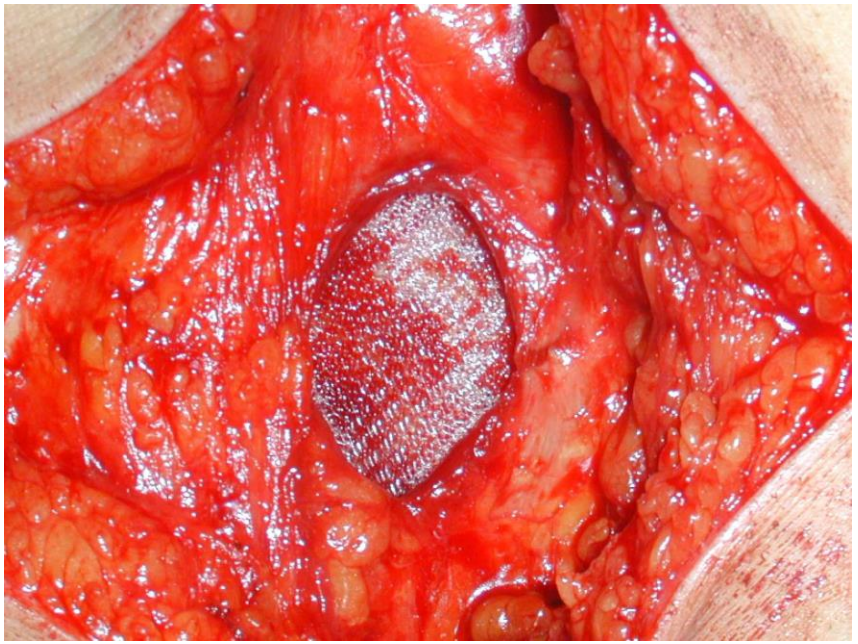




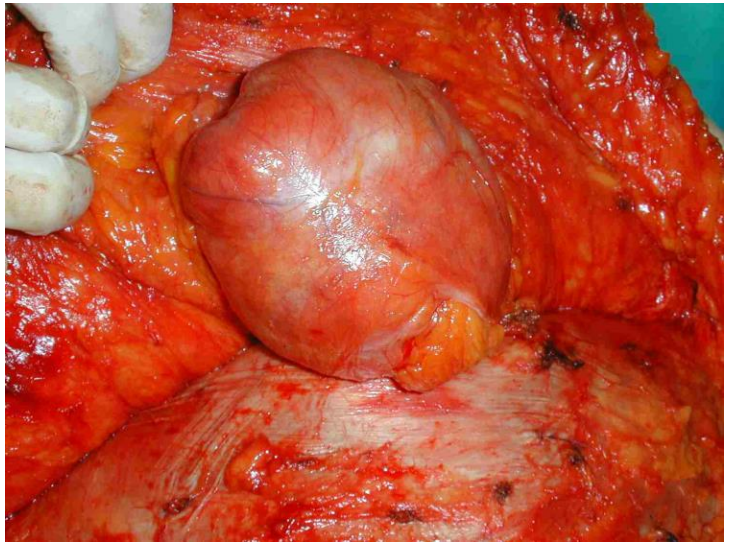
Umbilical hernia

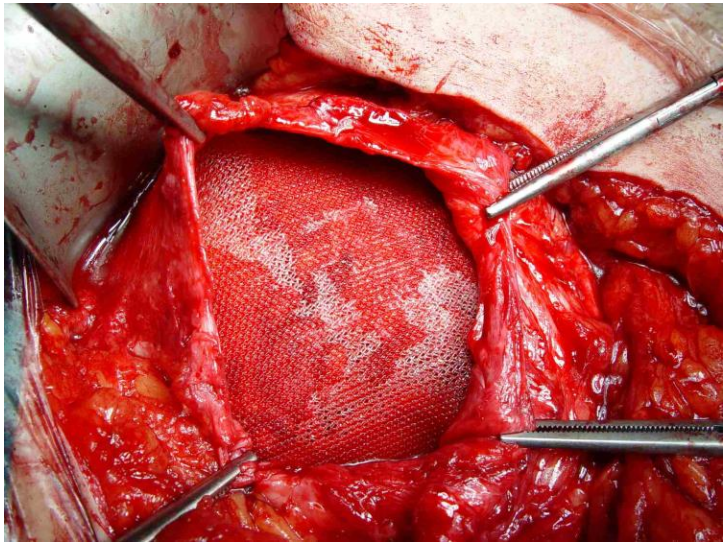
Small umbilical hernia (4-5cm)





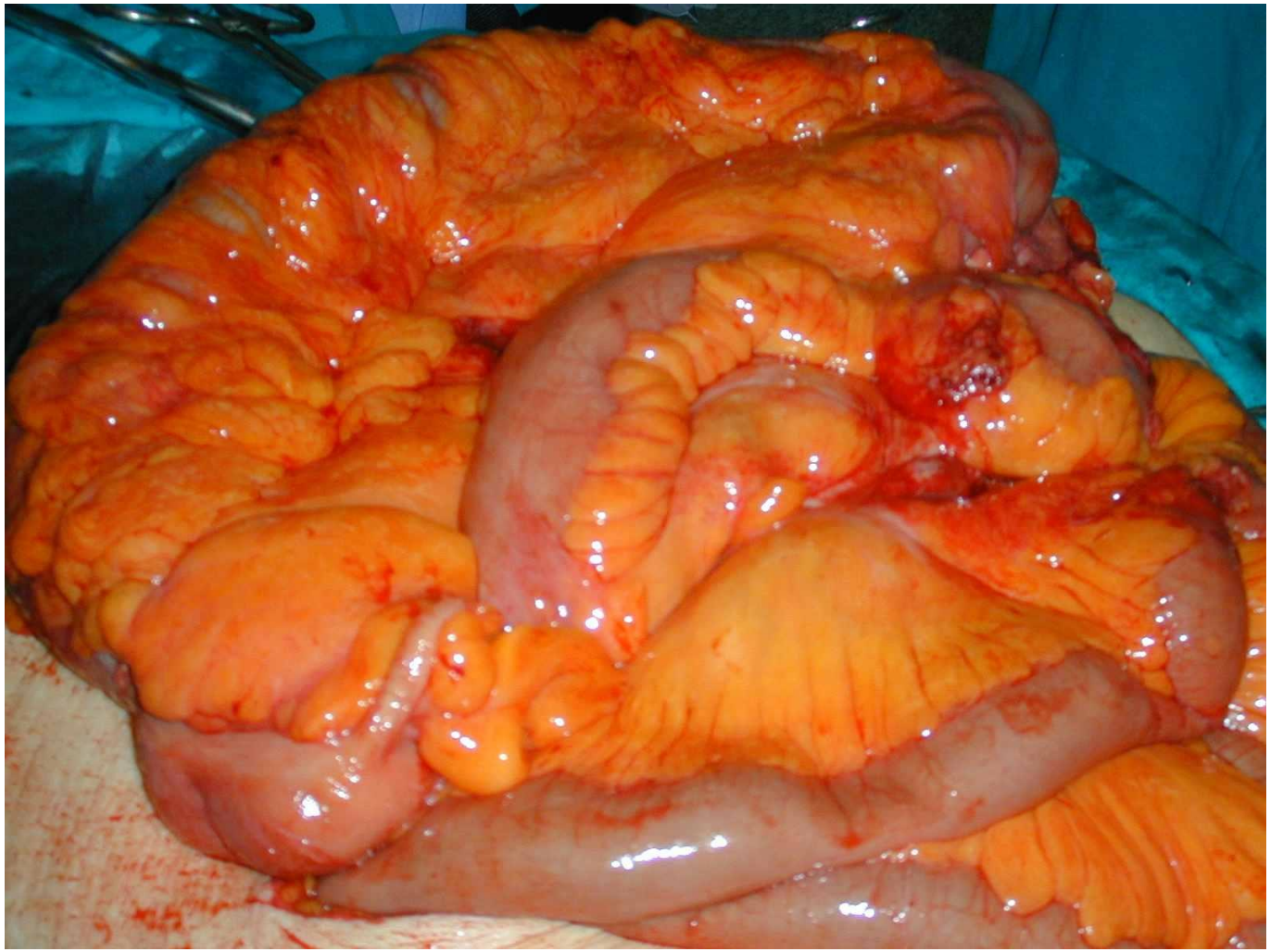
Medium umbilical hernia (5-10cm)



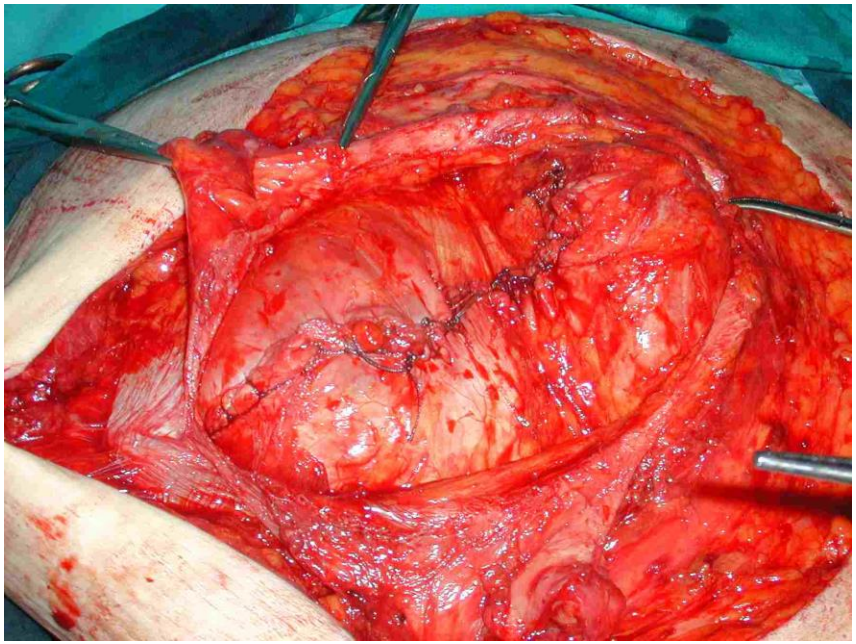


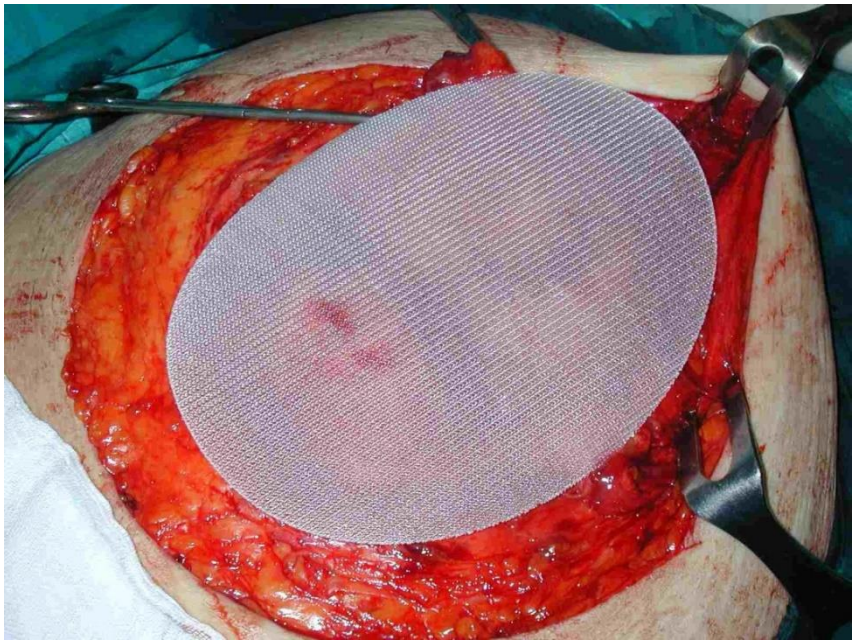
Large umbilical hernia (>10cm)

Contents (small intestine, omentum) of the large umbilical hernia (>10cm)

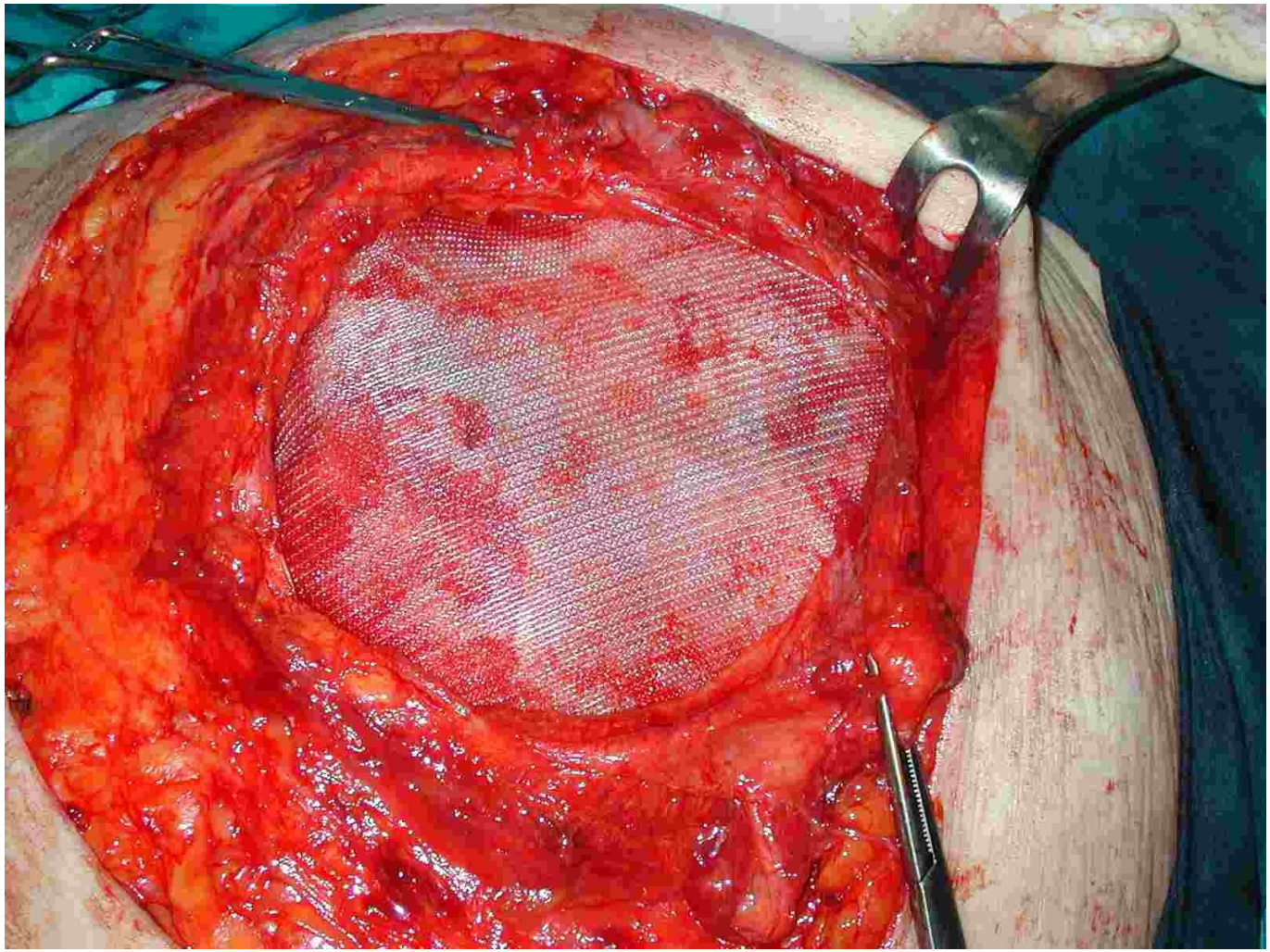


Stages of surgery on the large umbilical hernia (>10cm)





Stages of surgery on the large umbilical hernia (>10cm)



Large umbilical hernia (>10cm) before and after surgery

Irreducible hernias

Definition

Irreducible hernia – is the hernia, in which the organs prolapsing into the hernial sac are fixed inside it by commissures and fusions that prevent them from being introduced back into the abdominal cavity or returning there on their own.

Scheme


ПОСЛЕОПЕРАЦИОННАЯ ВЕНТРАЛЬНАЯ ГРЫЖА
Рубец
Кишечник
Кожа
Брюшная стенка
Брюшина

Clinical picture

Symptoms

- Irreducible hernial protrusion
- No tension
- Not accompanied by intestinal obstruction phenomena
- Grows in size during straining effort
- May be complicated by coprostasis

Localisation

- mainly umbilical and postoperative hernias

Sex and age specifics

- more often, females
- rarely, children

Clinical picture

- complaints about stretching pain in the area of formation that were absent earlier, irradiating to the lumbus in a number of cases

Physical examination

- protrusion does not disappear after the patient assumes the sitting position or after slight squeezing of the hernia
- the hernial sac is separated by connective tissues into separate areas (chambers) with large accretions of the omentum and intestinal loops that have come into the hernia sac (most often in umbilical hernias)
- isolated strangulation of contents of one of the chambers may occur

Specifics of clinical course

- Symptoms of pulp passage disorders develop (coprostasis in the lower parts)
- Addition of constipation, nausea, generalised weakness, sickness, pain in the epigastric area, partial loss of appetite, reduced working capacity

Treatment

Surgery stages:

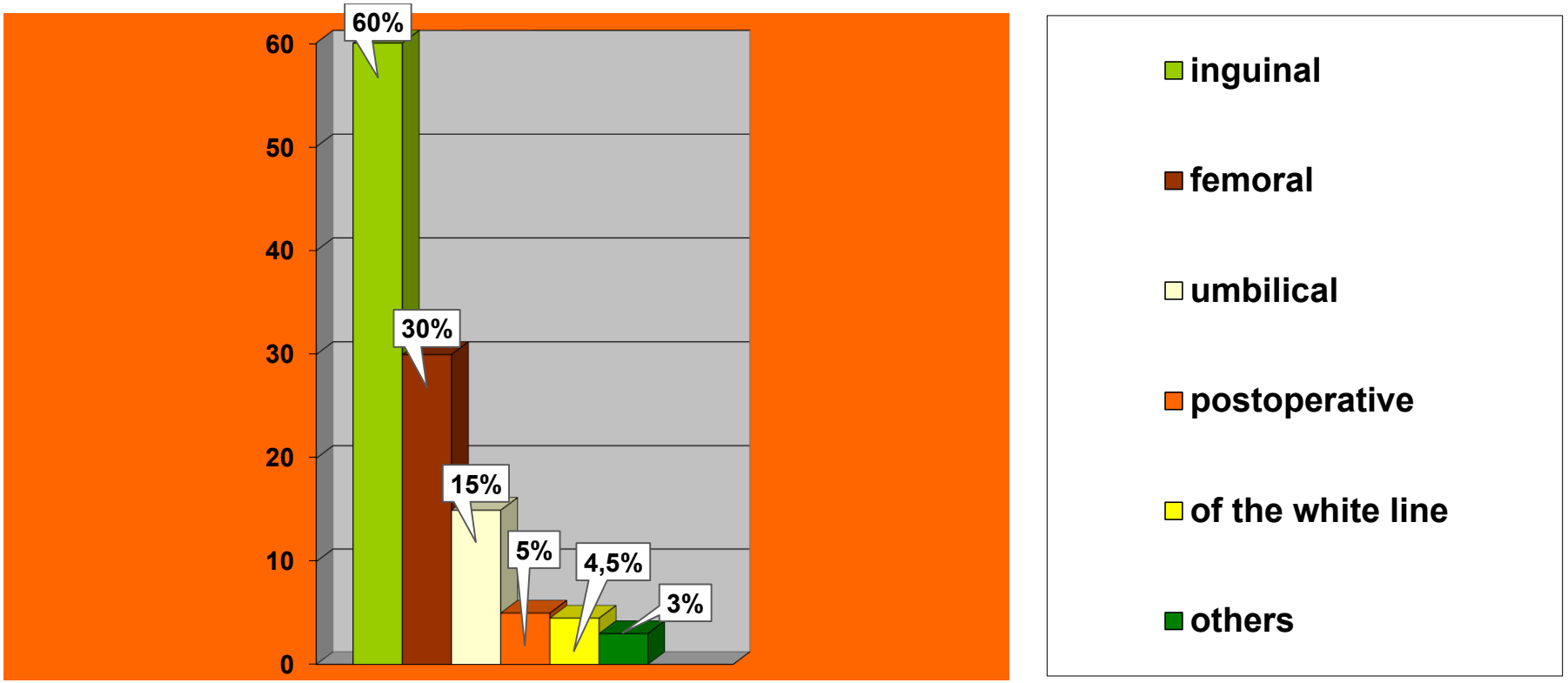
- herniotomy
- separation of the commissures
- plastic surgery of the hernial orifice

Strangulated hernias

Definition

Strangulation – the squeezing of the hernial content in the hernial orifice and in the scarified neck of the hernial sac with subsequent malnutrition of the strangulated organ

Frequency of strangulation of different hernia types



А.А. Матюшенко с соавт., 2009 г.

Pathogenesis of elastic strangulation

Intense contractions of the abdominal muscles
Stretching of the hernial orifice
Impression of the contents into the hernial sac or introduction of another intestinal loop there
Decrease in the intraabdominal pressure
Narrowing of the hernial orifice
Strangulation of the prolapsed part of the intestine
Pain spasm
Impairment of blood circulation and innervation
Intestinal ischemia
Intestinal necrosis

Pathogenesis of fecal strangulation

Decline in intestinal peristalsis or function of the organ
Coprostasis obturation
Increase in the volume of hernial contents
Squeezing of the hernial contents in the hernial sac
Impairment of blood circulation., innervation, addition of infection
Ischaemia of the intestinal wall
Necrosis of the intestinal wall

Pathological anatomy of strangulation

- at the place of intestine squeezing by the hernial orifice, lines form at the afferent and efferent ends of the intestine. Here, the intestinal wall suffers especially strong, then (according to the blood circulation impairment) it is the central part of the intestine located in the hernial sack and then the afferent and the efferent loops

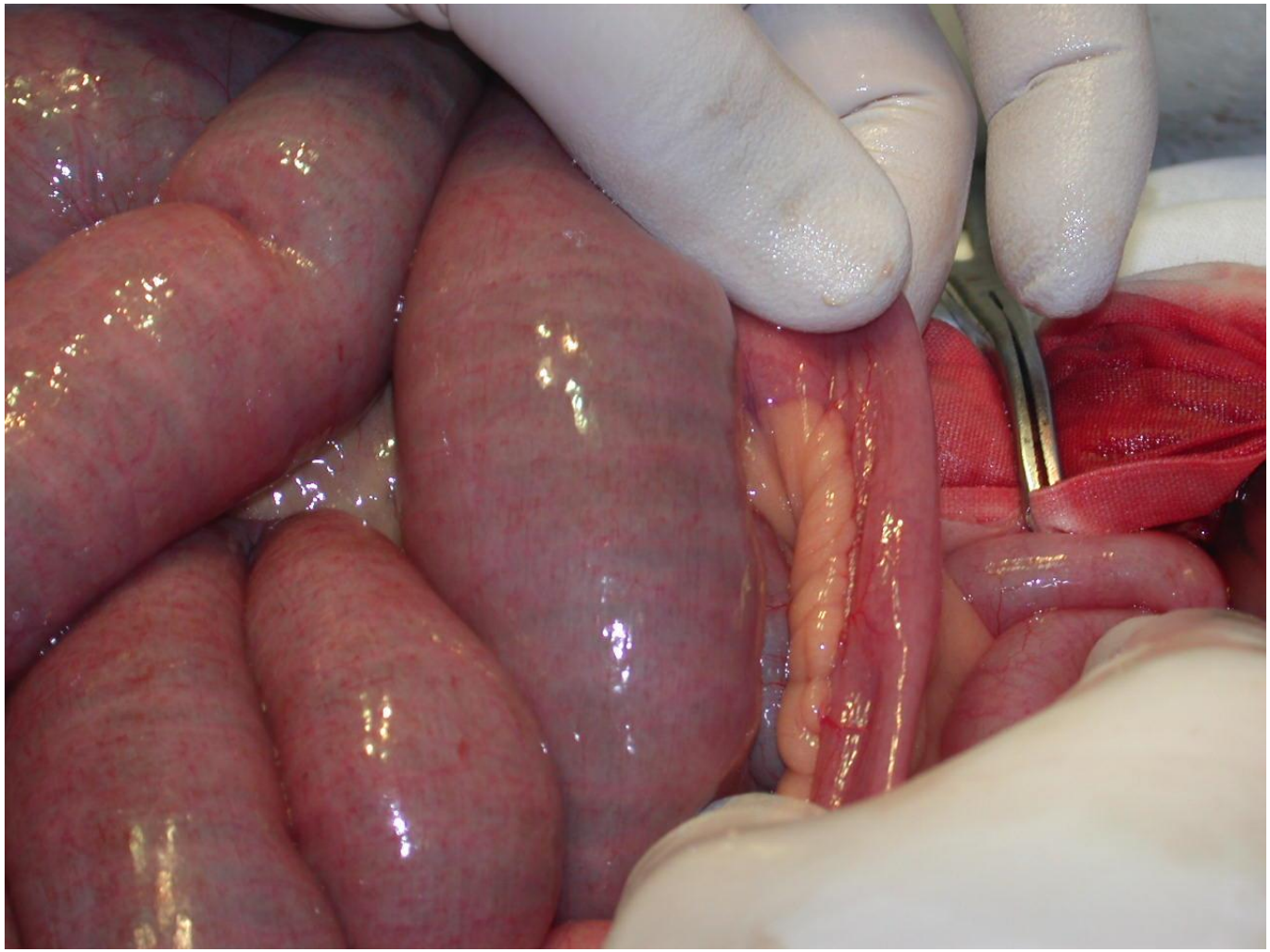
- impairment of nutrition of the abdominal wall results from direct pressure on the intestinal wall as well as from venous congestion with subsequent edema, bleeding and transudation of liquid into both the lumen of the intestine and into the hernial sac (hernial water)

Pathological anatomy of strangulation

- Hernial water is initially of straw-yellow colour, sterile, then becomes haemorrhagic and is subsequently infected
- The growing constriction of mesenteric vessels and subsequent thrombosis lead to necrosis

Strangulated inguinal hernia
Necrosis of the small intestine

Strangulated hernia
Intestinal obstruction



Pathological anatomy of strangulation

- Necrotic changes are more pronounced on the mucosa while all the vessels are located in the submucosal layer
- The serosa is damaged to a lesser degree. External changes of the intestine are not in accordance with the internal changes

Pathological anatomy of strangulation

- In the afferent loop, the changes of the mucosa may spread 25-30 cm above than visible changes of the serosa and 12-15 cm lower in the efferent loop
- Necrosis of the intestine in the hernial sac entails the hernial phlegmon, with subsequent fecal peritonitis.
- Strangulation of the omentum is less dangerous but may be complicated by thrombosis and vascular embolism with subsequent necrosis

Exposition of strangulation

- No more than 2 hours from the moment of strangulation: absent necrosis of the strangulated intestinal loops
- 2-8 hours have passed since the moment of strangulation: necrosis of the intestinal loop and intestinal obstruction phenomena develop, but with no peritonitis
- 9 hours of strangulation and later: development of hernial sac phlegmon and peritonitis

Classification

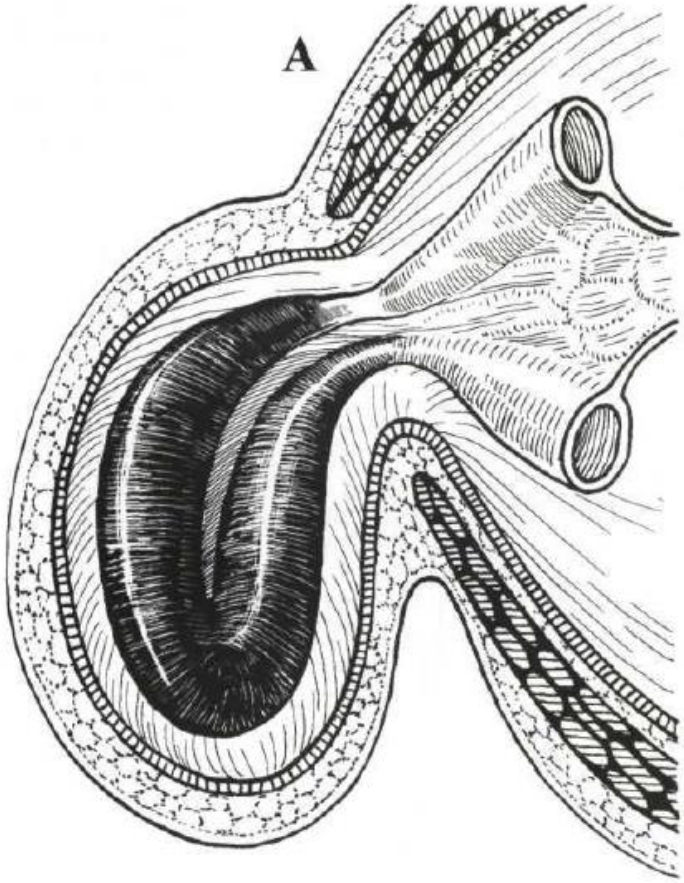
- ***By the strangulation mechanism***
  - ✓ *fecal*
  - ✓ *elastic*
- ***By localisation***
  - ✓ *external abdominal hernias*
  - ✓ *internal abdominal hernias*
- ***By the strangulated organ***
  - ✓ *greater omentum*
  - ✓ *GIT organs (bowel, stomach)*
  - ✓ *parenchymatous organs (liver, spleen)*
  - ✓ *uterus and its appendages*
  - ✓ *urinary bladder*
  - ✓ *internal*

Classification

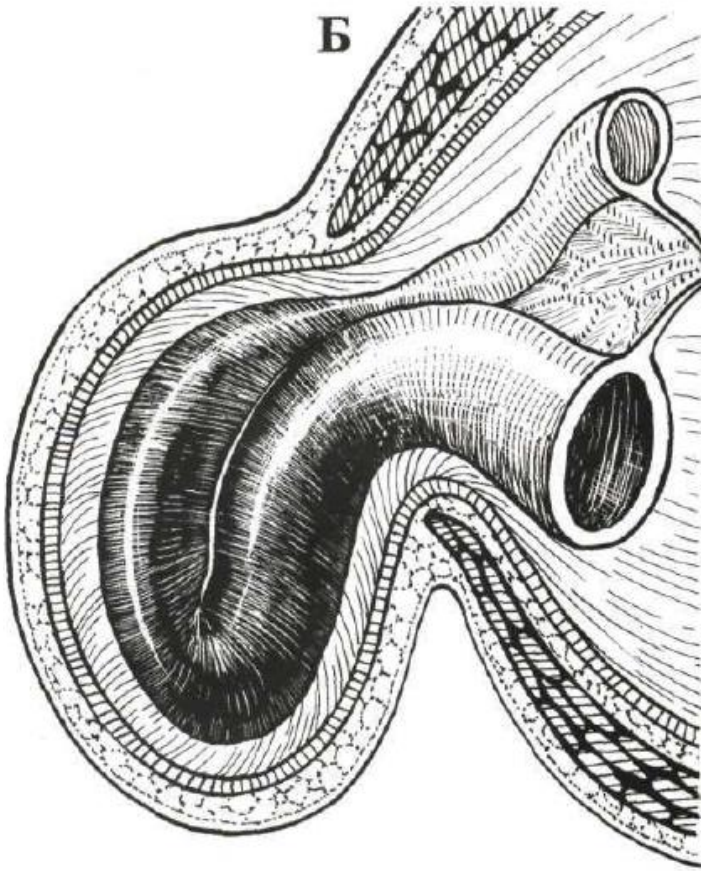
- ***Special types of strangulation***
  - ✓ *retrograde*
  - ✓ *parietal (Richter type)*
  - ✓ *Littre hernia (strangulation of the Meckel's diverticulum in the inguinal hernia)*

- ***Sequalae***
  - ✓ *acute intestinal obstruction*
  - ✓ *purulent peritonitis*
  - ✓ *phlegmon of the hernial sac*

Forms of strangulation

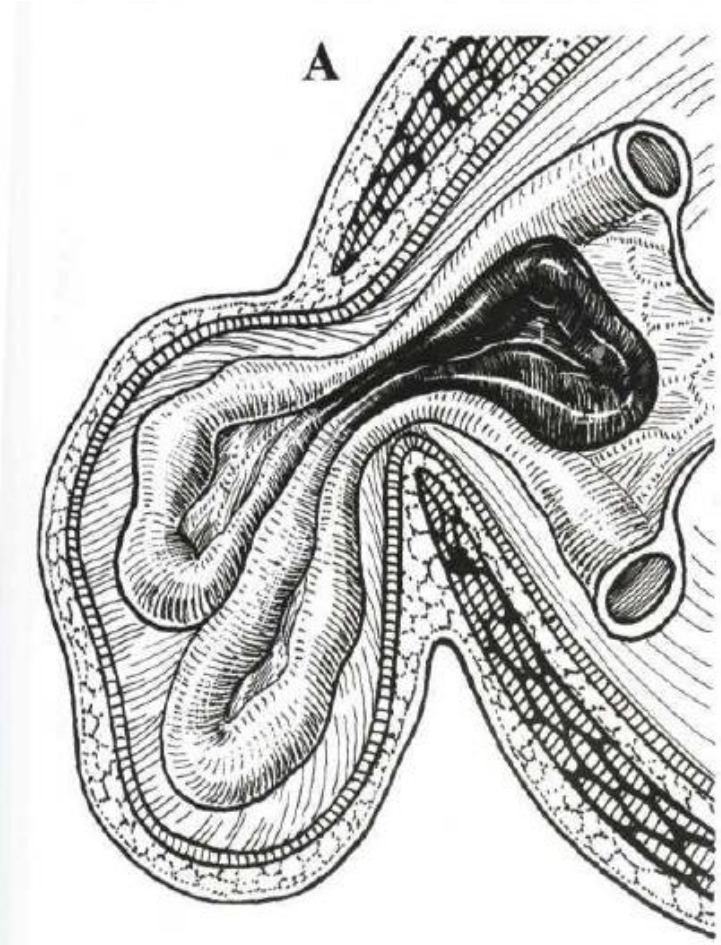


Elastic

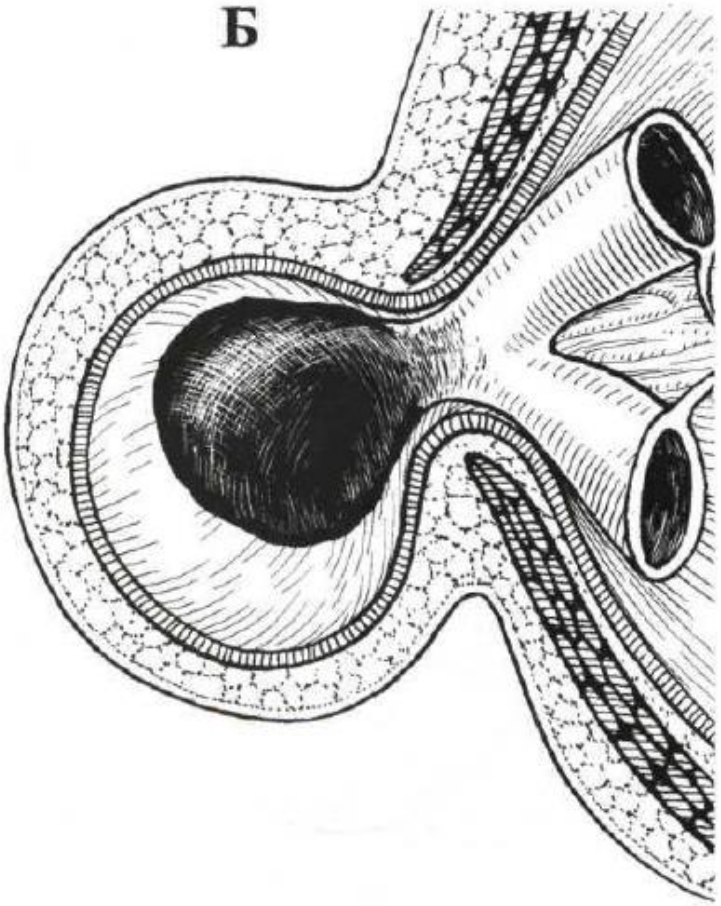


Fecal

Forms of strangulation

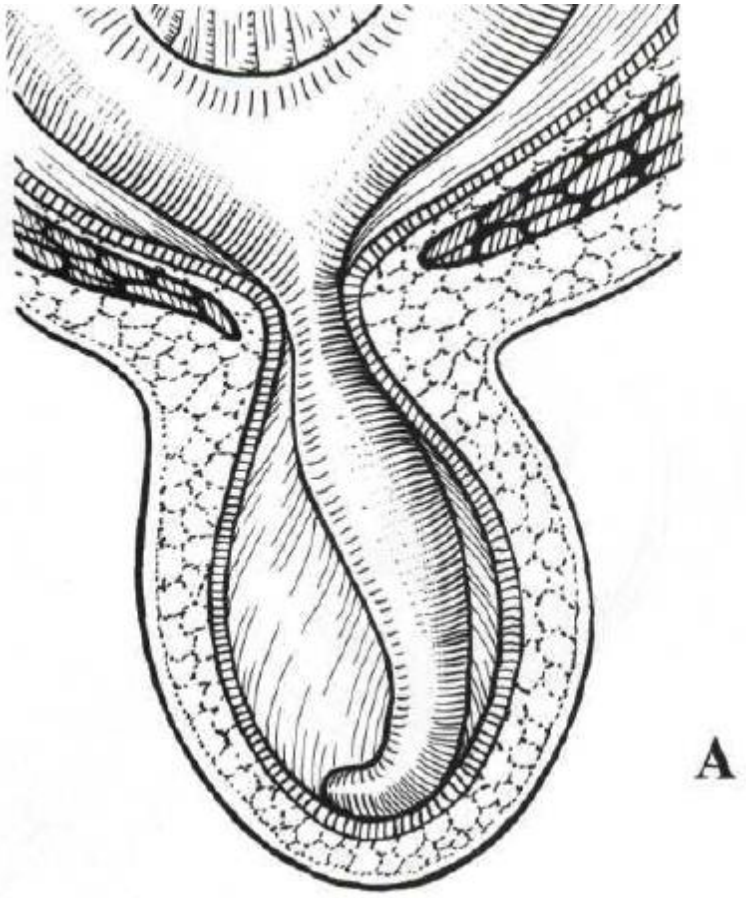


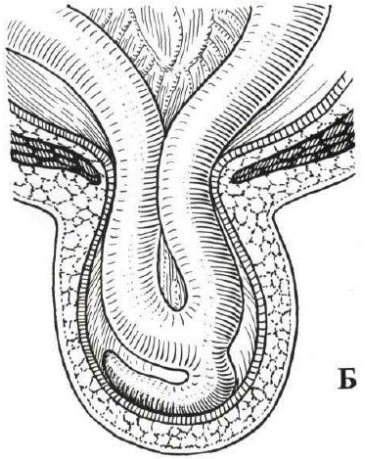
Retrograde

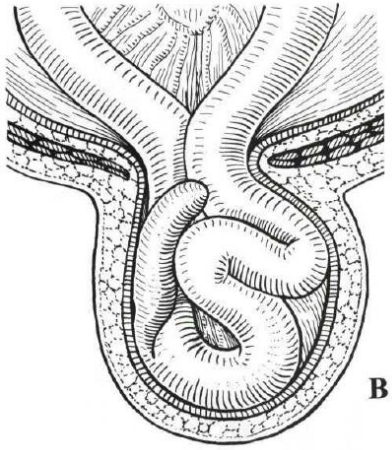


Parietal

Strangulation of the Meckel's diverticulum (Littre hernia)







Diagnosis

- Complaints and medical history
- Examination of the hernial protrusion
- Palpation
- Specific techniques (determining the cough impulse symptom)
- Plain x-ray examination of the abdomen
- Ultrasound imaging of the hernia
- CT if indicated

Complaints

- Pain is the main symptom. It appears during physical load and does not relent after it.
- It is located in the area of hernial protrusion
- It may Irradiate into the centre of abdomen and the epigastric area

Medical history

- The hernia was reducible and painless before appearance of pain
- The appearance of pain was preceded by physical strain (lifting of weight, running, defecation) or long-term defecation impairment

Objective assessment

- Upon examination, hernial protrusion is usually well noticeable, it does not disappear and does not change its shapes after the change in the patient's position.
- If the protrusion had been present earlier, it becomes larger and irreducible.
- Palpation-wise, the protrusion is acutely tense and painful, especially in the area of hernial orifice

Objective assessment

- The transmitting cough impulse is absent
- Percussion of the protrusion at the early stage of intestinal strangulation may reveal tympanites. However, later tympanites changes to a dull percussion sound due to appearance of hernial water
- During auscultation upon the strangulated hernia, peristalsis is not audible. However, peristalsis of the afferent part of the strangulated intestine may be revealed above the abdominal cavity

Radiography

Signs of acute intestinal obstruction:

- ✓ inflated loops of the bowel
- ✓ Kloiber’s cups

Ultrasound (if indicated)

Differential diagnosis of strangulated hernia and:

- ✓ inflammatory diseases of the anterior abdominal wall
- ✓ tumours
- ✓ thrombosis of the venous node into the ostium of the great saphenous vein

A patient with strangulated giant postoperative hernia

Strangulated inguinal hernia

Treatment tactics. Pre-hospital stage

- The patient is subject to hospitalization in the surgical inpatient facility
- Spontaneous reduction of the hernia is not the basis for cancellation of hospitalisation
- No attempts of forced reduction of the hernia are acceptable
- Anaesthesia, baths, warmth and cold on the strangulation area are contraindicated.
- Transportation to the inpatient hospital is performed in the horizontal position of the patient

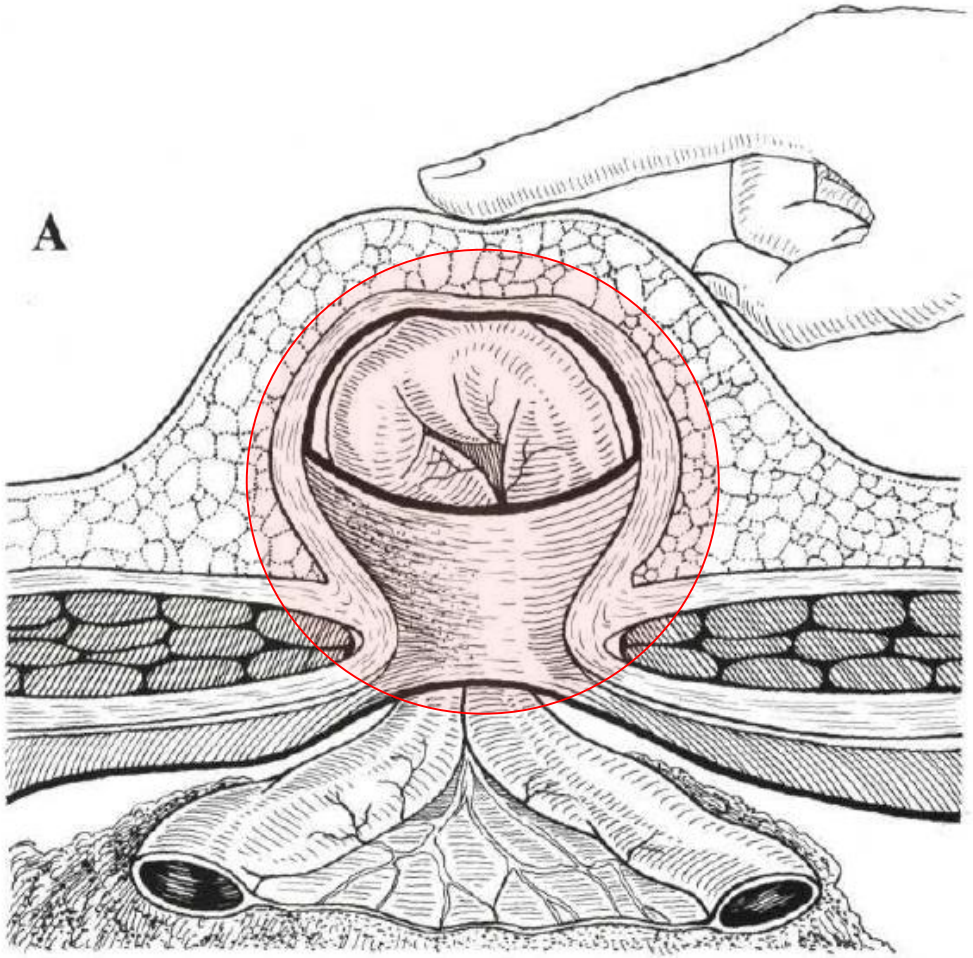
Treatment tactics. Hospital stage

- Examination, assessment
- Laboratory analysis: total blood count, urinalysis and other laboratory tests according to the indication
- Instrumental examinations: x-ray imaging of the chest, ECG, plain x-ray examination of the abdomen. Ultrasound examination of the abdominal cavity and the hernial protrusion if indicated
- Consultation by the general practitioner and anaesthesiologist if indicated.

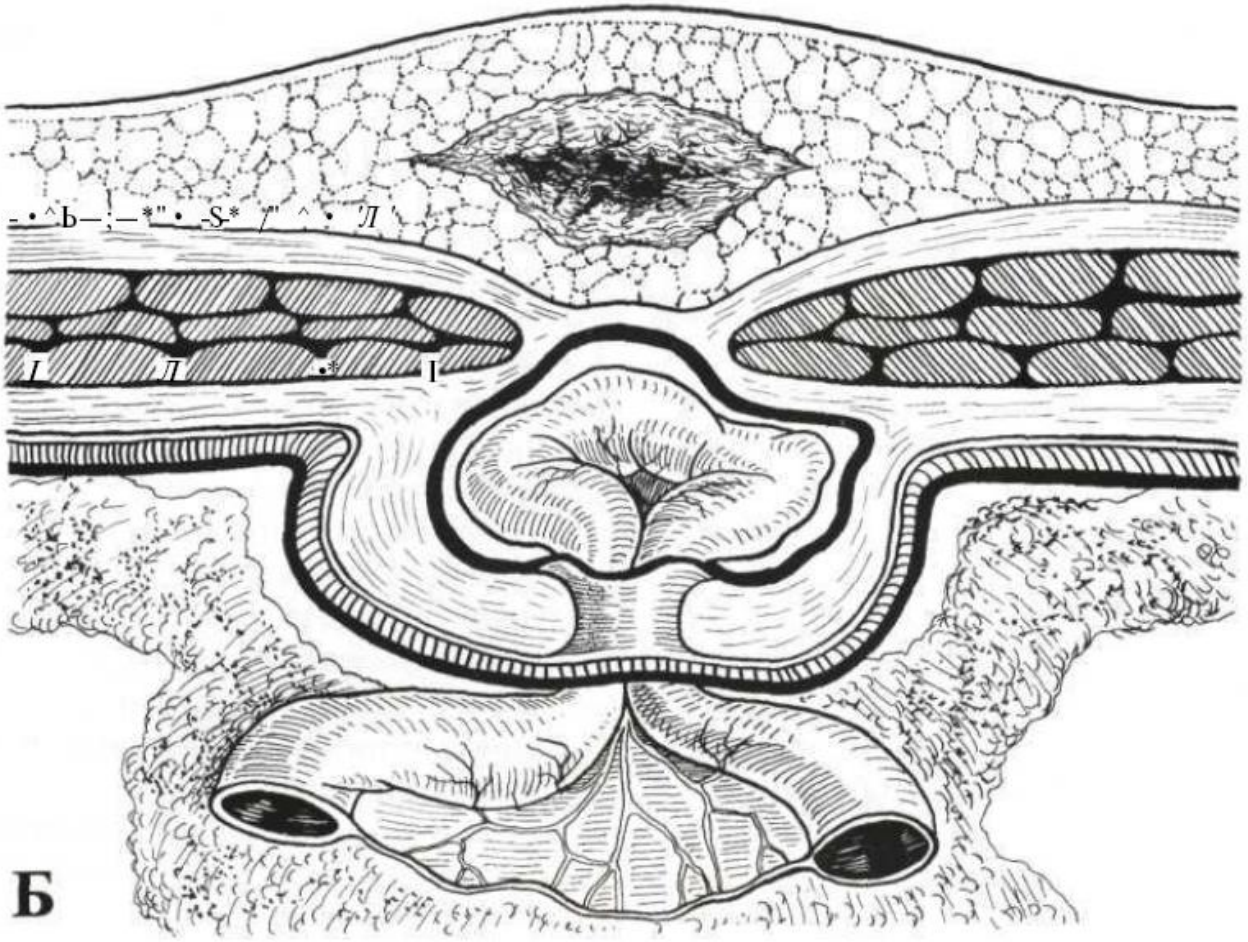
Treatment of the strangulated hernia

- ✓ **Surgical treatment (three days after the strangulation, the mortality rate grows 10-fold and accounts to 5-6% even in a timely surgery)**
- ✓ **The contraindication to the surgery is the agonal state of the patient**

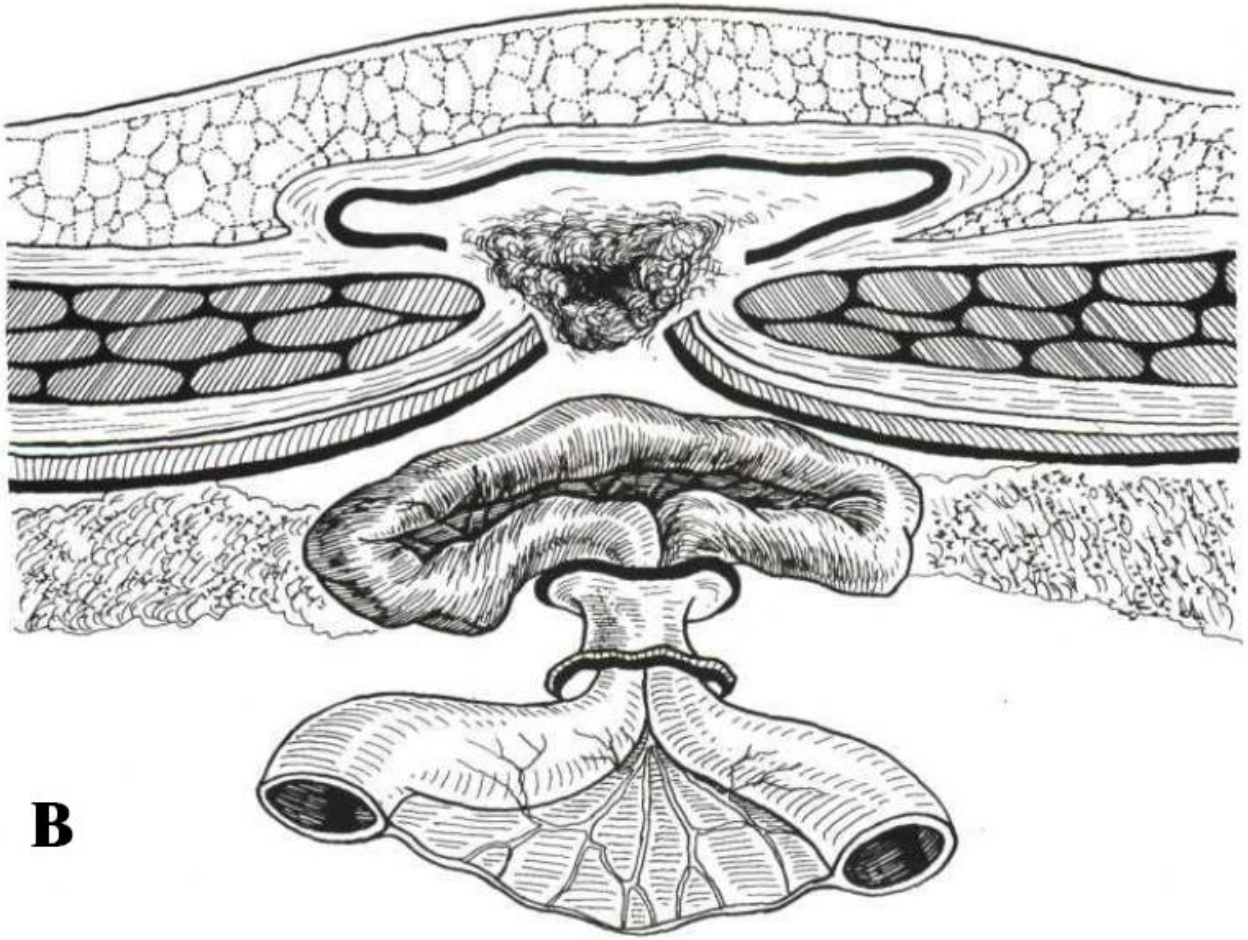
Surgical tactics
False reduction of the strangulated intestine



False reduction of the strangulated intestinal loop with the hernial sac



False reduction of the strangulated intestinal loop with the hernial orifice



Spontaneous reduction

- Occurred before hospitalisation: at home, in the ambulance on the way to the hospital or in the admission department. The patient must be hospitalised in the surgical department
- A present irrefutable fact of strangulation with the duration of disease over 2 hours, especially in acute intestinal obstruction phenomena is considered an indication to emergency surgery through midline laparotomy or diagnostic laparoscopy. The strangulated organ must be obligatorily found with restoration of its viability

Spontaneous reduction

- In case of duration of the strangulation shorter than 2 hours or doubt in the validity of strangulation, dynamic observation of the patient's condition is required

- In cases when the condition of the abdominal cavity on the first day after strangulation arouses no concern (no pain or intoxication symptoms), the patient may be left in the inpatient facility and undergo a scheduled herniotomy after the required assessment

Specifics of the surgery

- The strangulating ring is not dissected before opening the hernial sac, examination and fixation of the strangulated organs. The strangulating ring in inguinal hernias is dissected to the outside and to the inside in femoral hernias.
- Caution during dissecting the ring in order to avoid damage to the strangulated organs and vessels of the abdominal wall.
- Remember about the possibility of “hernial water” infection (covering with tissues, evacuation, culturing)
- Caution during reduction of the intestinal loops (performed after reanimation of the intestine)

Specifics of the surgery:

- **In case of visible changes in the intestine: covering with tissues soaked in warm normal saline for 5-10 minutes**
- **Infiltration of the mesentery with 100-150ml of 0.25% Novocain solution**

Signs of intestinal viability:

✓ restoration of normal colour and tone

✓ glossy and smooth serosa

✓ presence of peristalsis

✓ presence of pulsation in mesenteric vessels

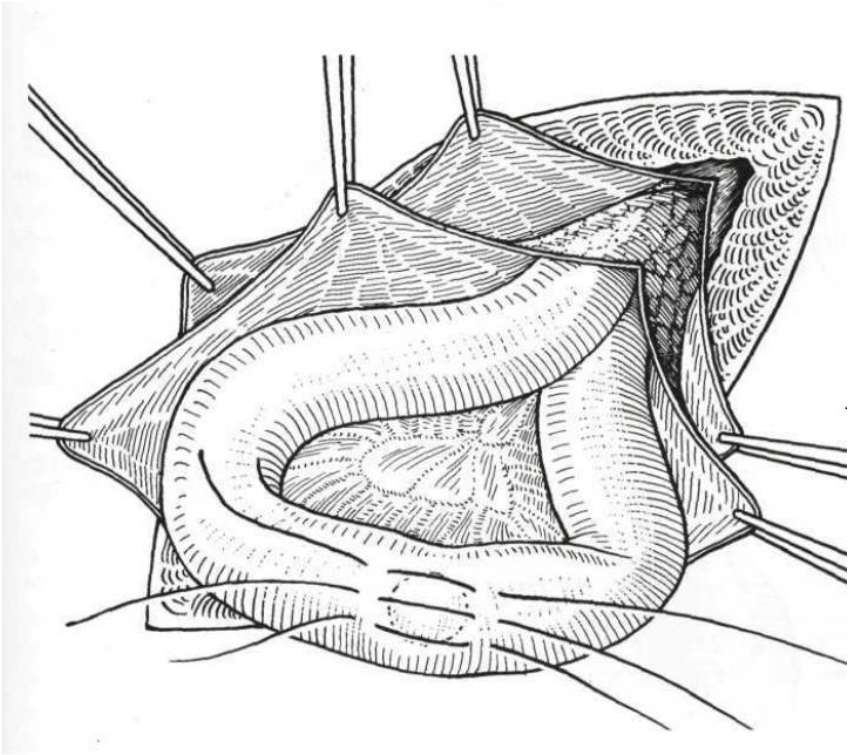
Specifics of the surgery

- In case of strangulation of several loops in the hernial sac, remember about the possibility of retrograde strangulation
- Intestinal resection is performed within the boundaries of healthy tissues with removal of no less than 30-40 cm of the afferent intestine and 15-20 cm of the efferent intestine, preferably, “end-to-end”
- In extremely severe condition of the patients, intestinal fistulas (stomas) are applied

Specifics of the surgery

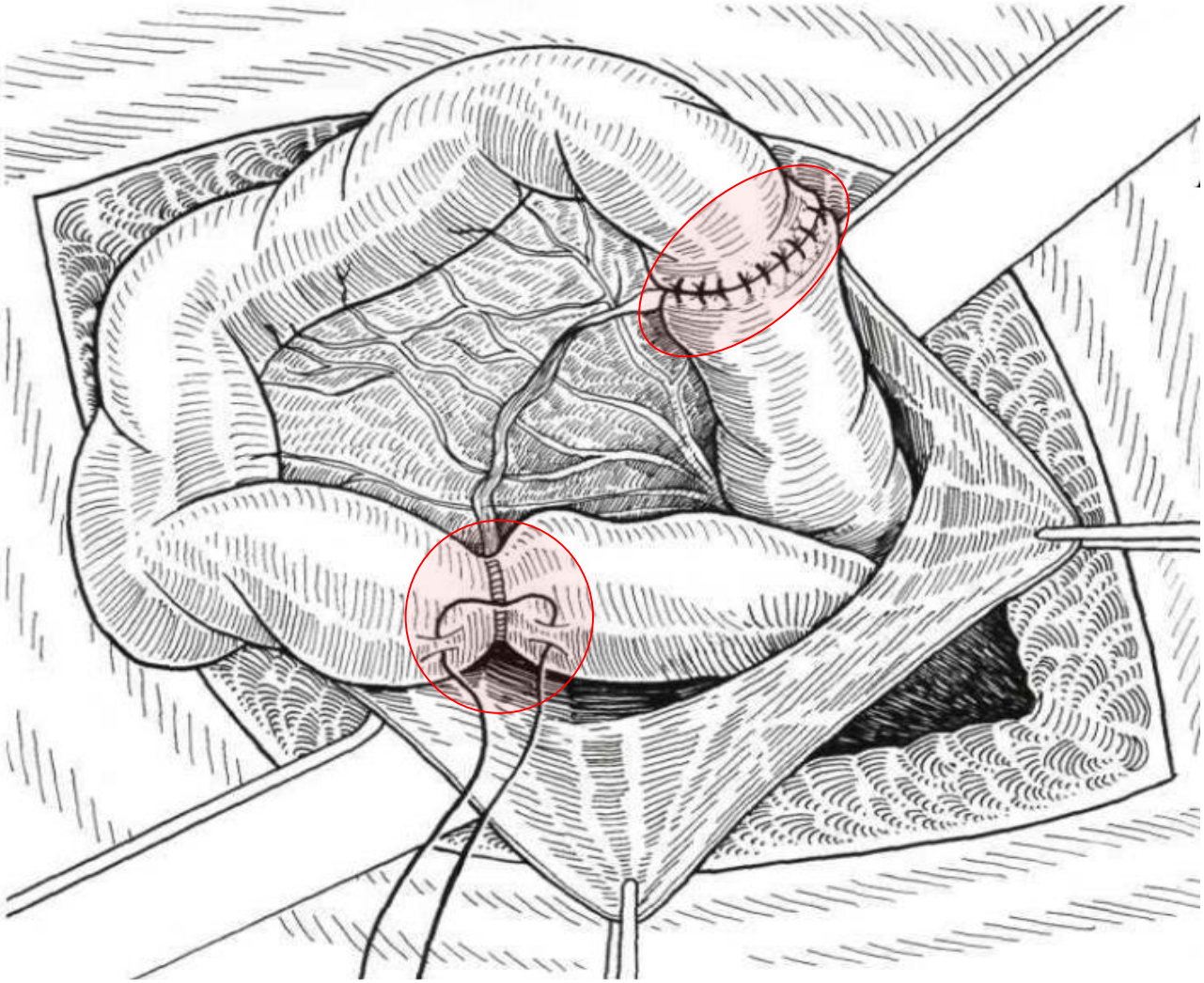
- **Further, plastic surgery of the hernial orifice is performed depending on the type of hernia**
- **It is necessary to use the simplest and less traumatic hernioplasty techniques that do not complicate or burden the operative intervention**
- **Plastic surgery with application of mesh endoprostheses is usually used for patients with strangulated hernias with large hernial orifice (recurrent inguinal, umbilical, postoperative, etc.)**

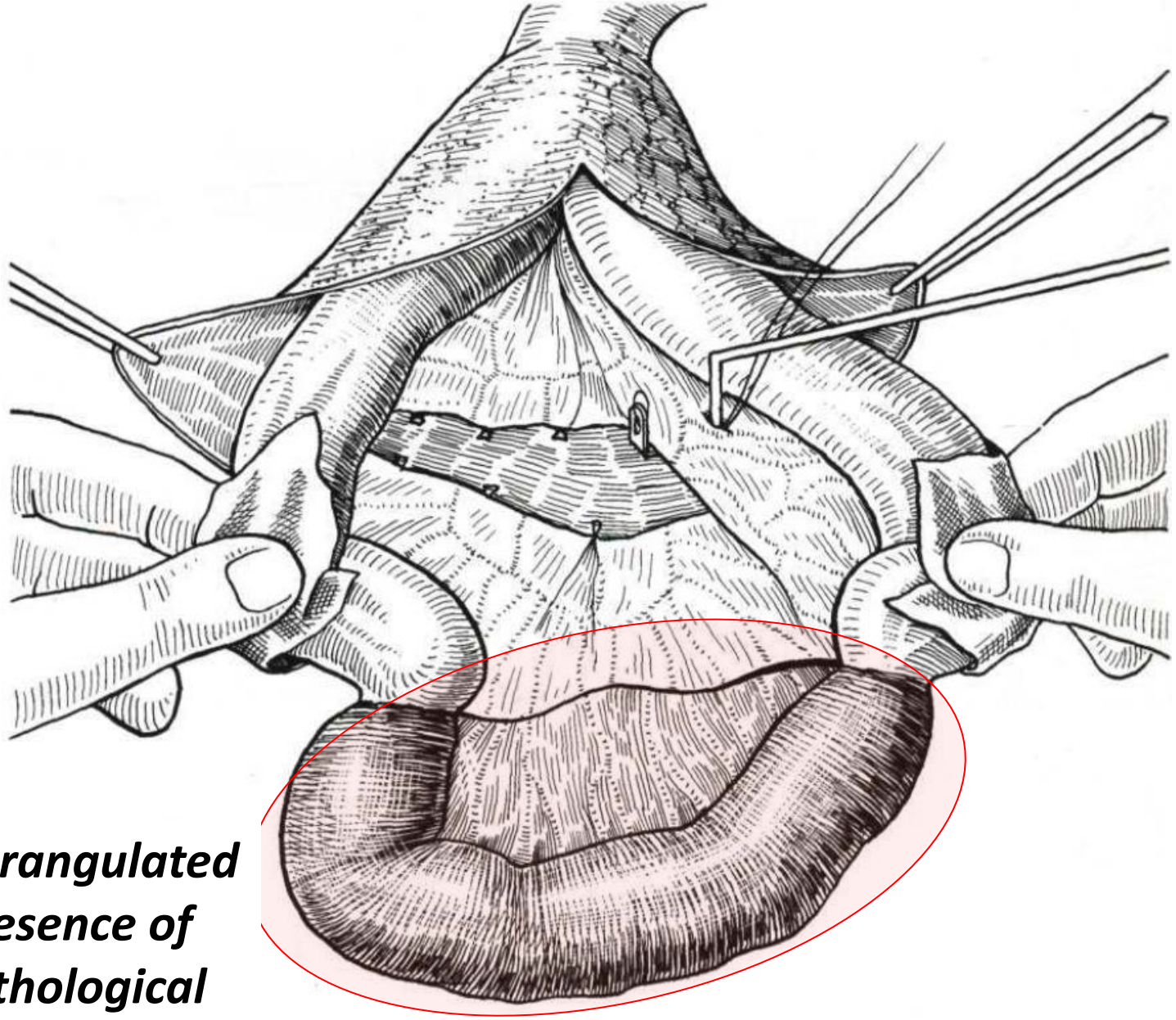
Parietal (Richter type) strangulation



Suturing of the strangulated area of the intestinal wall with its immersion using a row of seromuscular sutures in the transverse direction

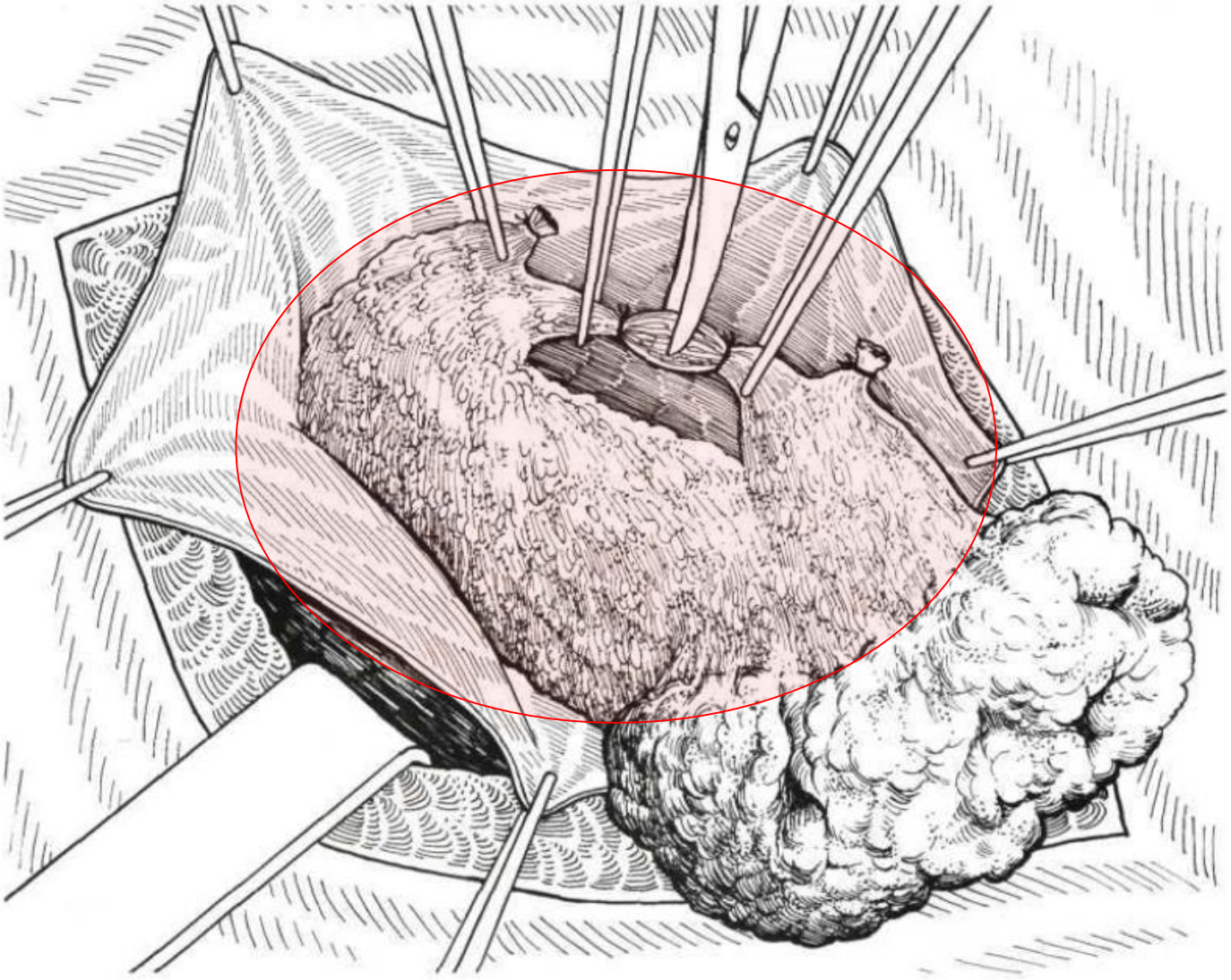
Suturing of the strangulation lines in very short-termed strangulations and absolute confidence in the vitality of the strangulated intestinal loop





Resection of a strangulated intestine in presence of irreversible pathological changes in its wall

Resection of the strangulated area of the greater omentum



Postoperative management of the patient

- Adequate anaesthesia
- Early activation of the patient, verticalisation
- Daily bandaging for the initial 3-4 days
- In case of intestinal resection: hunger on the first day, then diet “1a”, transition to the standard diet within a week
- In case of metabolic disorders: infusion therapy
- Prevention of thromboembolic disorders

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Control question

What is the treatment tactics for strangulated hernia?

Thank you for attention!