# **Odessa National Medical University**

Department of Surgery #4 with the course of oncology

LECTURE " Abdominal hernias "

The lecture discussed at the methodical conference of department

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1. Relevance of the topic. Substantiation of the topic.

Hernias of the abdomen occupy a significant place in the structure of surgical disease of the population. They occur in 6-7% of men and in 2-3% of women. Hernias are more common in children of the first years of life and in people of advanced age. Nevertheless, people of young and middle age are often ill on the hernia. In general surgical hospitals, patients with kiles account for about 10% of the total number of patients.

 The usual course of any hernia does not threaten a person, however, a complicated hernia leads to a lethal exit.

 That's why, doctors of any specialty should be familiar with this pathology.

The material that is taught in the lecture is of great importance in the professional training of a specialist:

- students of the medical faculty in the future practical work should diagnose the hernia and its complications, know the methods of diagnosis and orient in the organizational and therapeutic tactics;

- students of the dental faculty should be guided in these matters, in connection with the fact that the pathology of the oral cavity and teeth has a direct effect on the onset and clinical course of the hernia.

2. Objectives of the lecture:

- training

Know:

- topographic anatomy of the weak points of the anterior abdominal wall;

- classification of hernias;

- general clinical course and symptoms;

- methods of examination of patients with hernias;

- indications for conservative and surgical treatment of patients with hernia carriers;

- Methods of surgical treatment of patients with hernias;

- possible complications during and after surgery;

- issues of disability and disability.

- Educational

The material of the lecture is aimed at the formation of logical and

 clinical clinical thinking, responsibility

 doctor for the state of health of a sick person. Questions are covered

 medical ethics and deontology.

**4. Topsc structure**

**definition**

workabiliti

Surgical techniques

Conservative and operative treatment

Diagnistics

By origin

clinically

localization

classification

ABNORMAL HERNIAS

Hernia is a disease whose clinical and morphological manifestation is the exit of the abdominal organs under the skin or into other interstitial spaces through the holes that connect these hernias with the abdominal cavity.

Hernias of the abdomen occupy a significant place in the structure of the surgical morbidity of the population. They occur in 6-7% of men and in 2-3% of women. Hernias are more common in children of the first years of life and in older people. However, often people with young and middle-aged people suffer from hernias. In general surgical hospitals patients with hernias make up about 10% of the total number of patients.

Abdominal hernias can be external if the organs of the abdominal cavity leave it through any openings in the musculo-aponeurotic layer of the abdominal wall in its more superficial layers, and internal if the organs of the abdominal cavity emerge into the bags and pockets present in it. Internal fissures include diaphragmatic hernia.

Holes, because of which the hernia leaves, are called hernial gates. When external hernias are pathological enlarged natural cracks in the abdominal wall (inguinal, poor channels, umbilical ring, etc.), or crevices formed as a result of an abdominal wall injury. The sizes of the hernial gates can be different - from a narrow opening to a wide defect of the abdominal wall, through which several abdominal organs can pass simultaneously.

With external hernias, the organs that came out of the abdominal cavity are covered with a parietal leaf of the peritoneum, which, protruding through the hernial gates, forms a hernial sac of various sizes and shapes. The hernial sac can consist of several cavities, which are not always connected to each other. In the hernial sac, the mouth, cervix, body and bottom are distinguished. The mouth is the place where the hernial sac connects with the abdominal cavity; the cervix begins from the mouth, gradually expanding into the widest part of the hernial sac - the body. In cases where a part of the organ, the wall of which is placed retroperitoneously (for example, the retroperitoneal part of the bladder or the caecum) leaves the hernial portal, the hernial sac may be partially or completely absent. Such hernias are called sliding.

The tissues that cover the hernial protrusion are hernial membranes. Their nature depends on the type of hernia. Mainly hernial sac covered with a layer of pre-peritoneal fiber, stretched muscle fibers, superficial fascia, subcutaneous fatty tissue, skin. The organs that go into the hernial sac are called hernial contents. They can be an epiploon, loops of the intestines, retroperitoneal organs, appendages of the uterus.

The possibility of developing external abdominal hernias due to the peculiarity of the structure of the muscular aponeurotic part of the abdominal wall, which determines its weakness in the area of ​​natural canals and cracks (inguinal, femoral, umbilical, constriction canals, white abdominal line, spigel line, sciatic foramen, triangles of PTI, Grienfelt, and others). All those events that will cause an excessive increase in intra-abdominal pressure, as well as processes that contribute to weakening the tone of the abdominal wall (exhaustion, severe general diseases, pregnancy, lung diseases) lead to the fact that the tissues of the abdominal wall in the weakest places are stretched , and the cracks and canals expand and become the hernial portal.

Hernias can be corrected if, with sufficient decrease in intra-abdominal pressure, the hernia content completely recovers into the abdominal cavity and is unrecoverable, and if in connection with the development of fusion between the hernial sac and its contents it does not fully enter the abdominal cavity even if the hernial gates - Wide. Unrecoverable hernias are less frequent, nevertheless, they often develop different complications (infringement, inflammation, damage to the hernia, tumors of the hernia, intestinal obstruction, foreign bodies in the hernia).

Classification of hernias is carried out according to many criteria and signs.

By origin there are congenital and acquired.

On the localization of hernia relative to the abdominal wall, the outer and inner are divided.

At a specific place of origin or topography, hernia inguinal, femoral, seborrhal, perineal, umbilical, near umbilical, white abdominal line, spigel line, triangles of PTI and Lesgaft-Grunfelt, xiphoid process (external) and diaphragmatic (internal) are distinguished.

Depending on the pathogenesis of acquired hernias are divided into traumatic and dystrophic or hernia weakness. KR traumatic hernia refers to the damage caused by the tissues of the anatomical area where they originated - both in case of accidental trauma, and purposeful, including operative (postoperative hernia).

Hernias are also divided into uncomplicated, or loose and complicated. Of the complications are distinguished by irreparability, infringement, inflammation, damage, development of tumors in hernia, foreign bodies in the hernia, intestinal obstruction. There is a division of hernias and according to their size: small (hernial gates up to 2 cm), medium (up to 4 cm) and large - if the hernia gates are more than 4 cm. Large hernias

Inguinal hernia is a disease in which the internal organs leave the inguinal canal through the inguinal fossa through the uninjured vaginal process of the peritoneum of chi into the newly formed hernial sac, which is placed in the seed cord of chi.

The greatest number of inguinal hernias falls on the earliest childhood age (1-2 years), if there are oblique neutered keels. Then the number of them decreases, and then gradually increases and in particular increases in the age from 40 to 70 years. Inguinal hernia is often caused by men (85-90%) and much more by women. In women, in most cases, there are co-sy hernias; direct hernias in women are rare. The ratio of inguinal hernia in men and women from 5: 1 to 10: 1.

Anatomico-physiological data. Inguinal hernias occur in the inguinal space, which is located within the inguinal area. Topografoanom etch and strata of this area form part of the anterior abdominal wall. We have a skin, a subcutaneous base, a superficial fascia, a deep fascia (Thompson), an aponeurosis of the external oblique abdominal muscle, an internal oblique and transverse muscle, a transverse fascia, an over-cellulose fiber and a peritoneum.

The aponeurosis of the external oblique muscle consists of tendon fibers that go obliquely from the top down and from the outside to the middle. At its apex, the aponeurosis is turned downwards and downwards, lies on the bone arch of the anterior section of the pelvic ring and forms an aponeurotic trough open to the top and to the anterior, above which the lower one is located near the internal oblique and transverse abdominal muscles. Part of the aponeurosis, which is attached from one side to the frontal-upper part of the sacral bone, and from the second to the bottom lump, forms the inguinal ligament. In the lower corner of the groin section, the fibers of the aponeurosis of the external oblique muscle are split into two legs: the inner (upper) crus mediale, which attaches to the upper edge of the bottom joint and the crus laterale, which attaches to the bottom of its side. Between the legs is a hole called the outer ring of the inguinal canal. The yogic value is not constant and varies longitudinally from 2 to 3 cm and across from 1 to 1.5 cm,

The inner oblique and transverse abdominal muscles are one muscular layer that is located in the groin groove and does not adhere to it only in the medial section. Thus, in the lower corner of the groin section there is a limited space in the anterior wall of the abdomen, which is not filled with muscles. This space is called inguinal prom Izhk. (pu2)

The length of the inguinal space is determined by the place in the walking of the internal oblique muscle from the inguinal ligament. The inguinal space can have an oval or triangular shape, which are caused by the direction of the lower fibers of the internal oblique and transverse muscles. The length of the oval gap is 3-7 cm, and the height is 1-2 cm. The dimensions of the triangular gap are large and consist of: length 4-10 cm, height 1.5-5 cm.

The transverse fascia in the region of the inguinal ligament and the outer edge of the rectus abdominis has a more dense structure and is supported by aponeurotic fibers: from the inside, falx inguinale, from the outside - lig. interfoveolare. Vilna from all aponeurotic bundles is a part of the transverse fascia of the animal, the groin that is separated from below by the inguinal ligament corresponds to the outer opening of the inguinal canal.

Directly to the rear of the transversal fascia in the overlying cellulose tissue passes the trunk of the lower abdominal artery, the median of which is located the fibrous lobe of the itero-vana umbilical artery and the reduced urachus urinary duct. Peritoneum, covering these creations, forms three folds: median, medial and lateral. These folds disagree over the inguinal ligament important in practical terms pits: medial, lateral and elevation.

Inguinal canal. Directly above the inguinal ligament is located the inguinal canal.

There are four walls and two holes in it. The upper wall of the inguinal canal is lower near the inner oblique and transverse abdominal muscles, the anterior one - the aponeurosis of the external oblique abdominal muscle, the lower one - the groove of the inguinal ligament and the posterior-transverse fascia of the abdomen. The outer opening of the inguinal canal is located above the inguinal ligament in the aponeurosis of the external oblique abdominal muscle. The inner opening represents a depression in the transverse fascia and corresponds to the outer inguinal fossa. The length of the inguinal canal in the cholus ick ovule reaches 4 cm, and in women it is something smaller.

The shape of the inguinal gap and yogi dimensions are displayed on the anatomy of the inguinal canal. Thus, in oval spaces, the anterior wall of the inguinal canal is obtained due to the aponeurosis of the external oblique, and in the lateral part - the inner oblique muscle. The upper wall of the formation is due to the arched-shaped internal oblique and transverse muscles. The posterior wall of the canal is formed from the transverse fascia, which is strengthened less often by the muscular part of the inner oblique, often by the tendinous fibers of this muscle and mainly by the aponeurosis of the transverse abdominal muscle. The lower wall is formed by the groin groove. The inguinal canal in this structure forms three bottlenecks in the abdominal wall: 1) a deep hole (ring) of the inguinal canal, which, in addition, is covered by an internal oblique muscle; 2) narrowing of the middle part of the canal, which is located under the lower edge of the inner oblique and transverse muscles; 3) surface opening (ring) of the inguinal canal. When inguinal pro-interlining of a triangular shape, the anterior wall of the inguinal canal is obtained by aponeurosis of the external oblique muscle. The upper wall is obtained by a high and horizontally placed internal oblique muscle and an aponeurosis of the transverse muscle. The posterior wall is formed or only due to the transverse fascia or in the upper part by weak tendon fibers of the transverse muscle. Deep and superficial apertures are often dilated, in the middle section there is no constriction. The inguinal canal in women often has the form of a crevice, better strengthened by muscle and tendon-covia beds and something longer than the men's shoulders. The deep and shallow aperture is always narrow and smaller.

The physiological function of the inguinal canal is a complex protective mechanism of reflex activity of the walls of the canal and its openings, which arises when the pressure of the abdominal press in response to an increase in intra-abdominal pressure. The internal oblique and transverse abdominal muscles contracting and approaching the inguinal ligament will play the role of a sphincter, which, when straining the abdominal press, closes the inguinal canal. The second important defense mechanism of the inguinal canal with increasing intra-abdominal pressure is its oblique placement. With physical efforts, the internal organs press against the back wall of the channel, press it against the front wall. Thus, the rear wall seems to form a valve, creating resistance to the contraction of the lateral abdominal muscles to the direct pressure of the internal organs. A definite value in this case is the shape of the pelvis: with a narrow, frontal part, there are oblique hernias, since the canal is located closer to the direction of intra-abdominal pressure, and for flat, sagal, predominantly the inguinal inguinal hernia.

Surgical anatomy of inguinal hernias.

When oblique inguinal hernia protrusion of the anterior abdominal wall occurs in the area of ​​the lateral fossa. In its development, the hernia goes obliquely to the bottom and d to the middle along the inguinal canal, and then through the external opening - into the subcutaneous fatty tissue or the moss. Depending on the degree of development, these types of oblique groin carbs are distinguished. With direct inguinal hernia protrusion of the anterior abdominal wall occurs in the area of ​​the medial fossa. Direct hernias are released into the subcutaneous tissue through the external aperture of the inguinal canal.

The position of the lower abdominal vessels and the spermatic cord relative to the hernial sac with the direct and oblique inguinal hernias is different. In oblique inguinal hernia, the lower abdominal vessels are placed in the middle of the hernial sac, and with the straight line from the outside, from the hernial sac. Elements of the spermatic cord with oblique inguinal hernia spread out on the hernial sac, lie underneath it, whereas with the right inguinal hernia they are placed from the outside of it.

Direct inguinal carinae can only be acquired, whereas oblique groin can be acquired and neuter. At the inguinal inguinal hernias - the bag is formed by the vaginal process of the peritoneum, which protrudes during the process of lowering the testicle and forms a serous cover of the testicle.

If the vaginal process remains unsealed all the way from the inner opening of the inguinal canal to the testicle, it is both a hernial sac and its own testicle.

Slight inguinal hernia is rarely found. When they form a part of the hernial sac, there is a wall of the mesoperitoneally placed organ (cecum, ascending colon, bladder).

Classification. According to the anatomical structure and the corresponding place of their exit from the abdominal cavity, two types of hernias are distinguished: oblique and straight.

Depending on the origin of the hernial sac, inguinal hernias are neutered and acquired.

In the case of different variants of the placement of the hernial sac, other types of inguinal hernias can rarely be observed: braid and with a straight canal, peredocherbina and, internally, Incas, and is surrounded and surrounded by the groin and, above, and combined.

Clinical symptoms.

The diagnosis is mainly based on objective symptoms. Subjective signs of hernia are reduced mainly to pain, especially during physical loading. The onset of pain coincides with the moment of passage of the implants into the hernial sac. With sliding and recurrent hernias, pain is permanent. In addition to the pain of a hernia, it can be accompanied by faintness, vomiting, zakrypami, bloating, dysuric manifestations (with a sliding hernia, if it contains a bladder).

An objective sign of a hernia is vip'yachuvannya in those places that, according to anatomical location, are typical for this pathology.

Confirmation may be the disappearance of this tumor on its own, or after re-insertion into the abdominal cavity and its appearance again with coughing.

The second objective sign of the inguinal hernia is the presence of an enlarged external opening of the inguinal canal and a sensation of a "cough thrust" in finger examination of the inguinal canal. The review and palpation of the inguinal section are allowed to distinguish the oblique from the straight and femoral hernia, as well as from diseases that can manifest itself with symptoms characteristic of inguinal hernia.

The direct hernia has an oval shape inherent to people almost exclusively of the old age, often is bilateral and almost never dips into the moss. When oblique hernia protrusion has an elongated shape, often found in the middle of the eyelid, located along the groin of the inguinal canal and often descends into the moss. At the same time, half of the moss is where the hernia, enlarged, falls, its skin is stretched, and the penis is displaced in the opposite direction.

In addition to the review and palpation, hernia studies include percussion and auscultation, which determine the presence of a hollow organ (gut) in the hernia contents, which, with percussion, gives a tympanic sound and a feeling of peristalsis when listening. In cases of being in the hernial sac gland or bladder, percussion gives a dull sound.

Differential diagnosis.

Slanting from a direct hernia can be distinguished by a survey of their location, shape, relation to the mosquito. In addition, the examination of the inguinal canal with the inserted finger in the external opening resolves to detect pulsation of the lower epigastric artery from the outside of the hernial sac with a direct hernia, and to the middle of it - with an oblique hernia.

The difference between the inguinal hernia and the femoral is easy to detect, since the Persha is located above the pahoe ligament and the second under it.

Of the second diseases from which it is necessary to distinguish the inguinal hernia is lipoma, tumors and inflammation of the inguinal lymph nodes, edema of the testicle and seminal cord, and a nasal abscess. Lipoma in its consistency, although resembling a hernia, but it usually lies lateral ischemia of the subcutaneous inguinal ring, does not continue into the abdominal cavity, since it leaves the subcutaneous adipose tissue.

The enlarged lymph nodes have a dense consistency, clearly dissociated from the external opening of the inguinal canal, do not change their size at the strain of the abdominal press and cough. Acute inguinal lymphadenitis has a brief anamnesis, characterized by swelling and reddening of the skin above the nodes, a sore throat, the presence of an infectious fire as a cause of lymphadenitis.

The dropsy of the testicle shells has a clear boundary in the area of ​​the external opening of the inguinal canal, this tumor does not fit into the abdominal cavity, does not increase with inflating of the abdomen and cough. With inguinal warts, the hernia of the testicle is palpable in the depth of the canine or lateral of the keel, and when the testicles are edema it does not palpate.

For a typical abscess, there is a more lateral yogic placement with respect to the external opening of the inguinal canal, blunt sound with percussion, fluctuations and not swelling and swelling, no changes in its size when coughing.

The dropsy of the spermatic cord often extends to the inguinal canal and, in this way, resembles the inguinal carina. Nevertheless, the dropsy of the cord does not change its size with an increase in intra-abdominal pressure, does not enter the abdominal cavity.

Therapeutic tactics and the choice of the method of treatment.

Treatment of inguinal hernias is exclusively surgical. The operation is contraindicated only to people of the old age with large or multiple hernias, which are combined with a difficult pathology of the internal organs, mainly the organs of the circulation and breathing.

The operation has two objectives: the elimination of hernial protrusion and closure of the hernial mouth. The first goal is solved by isolating, opening the hernial sac, correcting the hernial contents, bandaging the hernial sac near the cervix, and then cutting it off. The second goal - the closure of the hernial gates has three groups of existing methods: 1) the narrowing of the inguinal canal without its opening; 2) restoration of the inguinal canal to its normal state; 3) the creation of a new bed for the spermatic cord and the elimination of the inguinal canal.

The position of the patient on the operating table is normal - on the back, it is advisable with the pelvis raised. For anesthesia, use local anesthesia or anesthesia. To perform surgery for inguinal hernia, an oblique cut of the skin 10-12 cm long is used in parallel and 2-2.5 cm above the inguinal ligament, which starts from the level of the middle and upper third and falls 1.5-2.0 cm below surface ring of the inguinal canal.

Carefully distinguish the aponeurosis of the external oblique muscle from the subcutaneous tissue and fascia to the even definition of puerto zvojky.

 I. Operation of the narrowing of the inguinal canal without yogo opening.

1. The way of Czerny. After dressing and removing the bag, without opening the aponeurosis of the external oblique muscle, seams are placed on the yoga legs. Then, 3-4 seams of the upper oblique muscle of the aponeurosis are superimposed on the upper side, and the aponeurosis is higher than the inguinal fold from below.

2. The method of Py. After isolation of the dressing and removal of the hernial sac without revealing the aponeurosis of the external oblique muscle, starting from the external opening of the inguinal canal, 4-5 seams are applied, the aponeurosis of the external oblique muscle grasping on top along with the underlying muscles and the inferior inguinal ligament from below.

II. Operations of restoration of the inguinal canal to the yogic normal state.

The restoration of the inguinal canal can be carried out by strengthening the anterior or posterior walls of the inguinal canal.

Operations to strengthen the anterior wall of the inguinal canal. These operations include the methods of Martinov, Luke-Shamp the Ioner, Bobrovaya, Volfler, Girard, Spasokukotsky, Herzen, To Im-Barovsky. The essence of these operations is a high dressing and removal of the hernial sac and strengthening of the anterior wall of the inguinal canal by flapping the aponeurosis of the external oblique muscle without suturing the chi with the hemispherical folding of the lower edge of the lateral abdominal muscles to the inguinal ligament.

1. The way of Martinov. After removal of the hernial sac, 4-5 sutures are applied between the edge of the upper aponeurosis flap of the external oblique muscle and the inguinal ligament. The lower flap of the aponeus-rosa of the external oblique muscle is superimposed above the upper one and fixed with sutures without much tension.

2. The way of Girard. After removal of the hernial sac near the inner oblique and transverse muscles, sew to the inguinal ligament in front of the spermatic cord. After this, individually, the upper flap of the aponeurosis of the external oblique abdominal muscle is sewn to the inguinal ligament. The lower flap is fixed over the top with a few seams, forming a double texture.

Lower near the internal oblique and transverse muscles sewn with the inguinal ligament in front of the semenic cord, individually sewn the upper flap of the aponeurosis of the external oblique muscle with the inguinal ligament.

3. The way of Spasokukotsky. All perform as in the Girard method, but the lower one near the muscles and the upper aponeurosis flap of the external oblique muscle is sewn at once, so as not to gently curl and not injure the inguinal ligament with the two adjacent seams.

4. The way To imbarovskogo. Tse modified method of Spasokukotsky. The essence of it is that, after retreating 1 cm from the edge with a round needle, propoluyut the upper flap of the aponeurosis together with the lower edge of the inner oblique and transverse muscles, and, after suture again, at the very end of the aponeurosis, sewn to the inguinal ligament. The lower flap of the aponeurosis is sewn to the top without any special tension.

I. The operation of strengthening the back wall of the inguinal canal.

1. The way Bassin and. After cutting the skin and aponeurosis of the external oblique muscle and high removal of the hernial sac, the seed canal is completely isolated and retracted to the front. Then they impose so-called deep seams. In them, grab the bottom near the inner co-sogo and transverse muscles, the transverse fascia. In the first two of the pubic joint seam for-grasping and near the rectus muscle along with its vagina and sewed for 5-7 cm to the inguinal ligament, and in the first seam grip and periosteum in the pubic lobe of the tubercle. They put the spermatic cord on the created muscular bed and, in addition to it, they see the edges of the aponeurosis of the external oblique muscle next to the vulva-cortex sutures.

2. Kukudzhanov's method. It is used mainly for difficult forms of inguinal hernias: straight, large oblique with a straight canal, recurrent. After removal of the hernial sac and excretion and retraction to the front of the spermatic cord, remove the fatty tissue from the transverse fascia by stripping it. The transverse fascia are dissected lengthwise, the posterior surface of it is separated from the nero side shell and Cooper links (upper pubic) are identified at the bottom of this gap. Above the stump of the gnaw-chewing sack sewn with a suture suture or 2-3 saddle stitches and a sterile shell. Because of the transverse fascia fascicles are carved. In the medial section of the high inguinal gap, grasp 3-4 seams near the highlighted deep leaf of the vagina of the rectus abdominis. Bottom is the upper pubic and partially ibernatovu stitches. In the lateral section of the inguinal space, the aponeurosis of the transverse muscle is sewn on top of the suture with 3-5 sutures along with the edge of the transverse fascia, and from below a thickened part of the transverse fascia (zduhvinno-pubic lobe), if it is insufficiently developed, the posterior upper part of the inguinal ligament. All superimposed seams behind the seed cord.

In cases of obvious tension to the tying of the sutures in the medial section of the deep leaf, the straight muscle in front of the rectus muscle makes an oblique voluminous incision of the vagina 2-2.5 cm long. Insert the spermatic cord and, above it, stitch the duplicate with the aponeurosis of the external oblique muscle.

IV. Operations create a new bed for the spermatic cord and eliminate the inguinal canal.

1. The way of Postemsky. Dissect the aponeurosis of the external oblique muscle closer to the inguinal ligament. Allocate a spermatic cord. Then dissect the inner oblique and transverse muscles in the lateral direction from the deep opening of the inguinal canal in order for the spermatic cord to move to the upper lateral angle of this incision. After that, the muscles are stitched. From the top seize the seam 4 layers: the upper flap of the aponeurosis of the external oblique muscle, near the internal oblique and transverse abdominal muscles and the transverse fascia; in the first two medial seams behind-grasping near the rectus muscle and sewed under the spermatic cord to the inguinal ligament together with the lower flap of the aponeurosis of the external oblique muscle. The superficial fascia is sutured over the spermatic cord.

V. Methods in which auto-, homo-, hether, and alloplastics are performed to strengthen the anterior or posterior wall of the inguinal canal.

These plastic techniques are used for large, recurrent hernias in cases of impossibility of plasty of the inguinal canal by local tissues. In these cases, free plastic is used with a wide fascia of the thigh (Kirshner's method, skin flap (Barnov's method, using allo-plastic material (tantalum netting, nylon and other chemical materials).

Femoral hernia.

Among abdominal hernias, femoral hernias are second in frequency after inguinal hernias. They are often complicated by jamming, often with severe consequences.

Femoral hernias occur most frequently in the fourth to sixth decades of life. These hernias as a rule are acquired and in women they occur 3 times more frequently than in men.

Physiological ^ -anatomo-physiological data.

The femoral hernia emerges below the puertophorous call in the femur triangle. A deep leaf of the superficial fascia is attached to the ligamentous ligament, from below is a wide fascia of the thigh, behind

- transverse fascia of the abdomen and zduhvinna fascia. These anatomical creations firmly separate the lower abdominal cavity from the upper part of the thigh. A deep leaf of the wide fascia of the thigh is attached in front of the inguinal ligament, and in the back to the crest of the cedar bone, forming an arc-wine-comb with an arch that divides the space between the inguinal ligament and the bones of the pelvis into two sections: the external - the muscular and the inner - the vascular. The external part contains the cedar-transverse muscle and the femoral nerve. The internal department is separated in front - inguinal ligament, from the outside - zduhvinne-rowed with an infrequent arc, from the inside - by a half-month ligament of ibernatha and from below by the periosteum of the horizontal branch of lone bones covered with thick dry-vein fibers (Cooper ligament). In the vascular department, the femoral artery (lateral) and the femoral vein (medially) pass.

The femoral canal in the topografic anatomical relation is conditionally distinguished. The canal occurs only in cases of femoral hernia. Its walls are in front - the inguinal ligament, from behind - the horizontal branch of the lonely bone, from the outside - the femoral vein and from the inside - near the umbernate communication.

The blood supply to the groin-femoral fold is carried out by a superficial epigastric artery, the surface artery, which surrounds the zduhvinnu bone, external genitalia and their inguinal branches. The arteries accompany the corresponding veins.

In the subcutaneous tissue of the femoral triangle, 3 to 5 cm below the inguinal ligament, surface and deep lymph nodes and vessels are localized.

 The inertia of the sections is carried out by the endings of the CP of the intercostal nerve, zduhvinno-gipoga-stralnim, zduhvinno-pahovim t branches of the femoral nerve.

Surgical anatomy.

Femoral hernias go under the inguinal ligament and located in the upper part of the anterior surface of the thigh. Herniated gates of femoral hernias can be placed on equal internal, middle or outer parts of the inguinal ligament. The hernial protrusion extends to the middle of the femoral vein into the femoral canal and further, through the outer ring of the canal, emerges into the subcutaneous tissue of the anterior surface of the thigh. Hernial sac covered with skin, fatty cell-bud and surface fascia.

Femoral hernias can go out in front or behind from the femoral arteries and vein. The hernia of the lacunary ligament passes to the middle of the inner orifice of the femoral canal through a gap in 1 ig.lacicar. The muscular femoral carina is placed from the outside of the femoral vessels and passes through.

Herniated contents of the femoral hernia can be the same organs that are also present in the inguinal region.

There is an ionology and pathogenesis.

The main causative factors of femoral hernia are characteristic for all types of abdominal hernias. Nevertheless, the causes of the appearance of the femoral keel, in addition to the general ones, have their own peculiarities. Patients refer to difficult physical work (65-70%) and difficult births (17-20%) as the single cause of femoral hernia. Right-sided carinae occur in two-thirds of patients and left-sided keels in a third. Bilateral caries are observed in 3-5%. In some cases, a pre-performed surgery for an inguinal hernia on the same side will play a decisive role in the onset of the femoral hernia.

Obviously, the predominance of femoral hernia in women is also due to the features of the structure of the female pelvis and its greater inclination to the front.

Classification.

The most recognized classification was Krymov, which is based on the anatomical principle. According to her femoral hernia is divided into two types:

1. The Vascular Department:

a) occupies the entire width of the vascular compartment.

 b) The fissure is only part of the vascular compartment (medial, median,

external, goes through a defect in the umbernate bundle).

2. Muscular department.

Clinical symptoms.

The symptomatology of the femoral hernia practically does not differ from other hernias. Patients are concerned about the pain in the hernia, the pain in the abdomen on the side of the hernia, the pain of irradi in the lower back is troubling aching pain on the front inner surface of the thigh on the side of the hernia. At the review it is visible выячивания the oval form below пуптотоїї зв'яки in a typical place. With the adjustment of the flesh, you can use your finger to determine the hernial gates and the cough push. In rare cases with a poor hernia, which presses on the varicose dilated large subcutaneous vein of the hip, fast-ro progresses varicose and there are yogic complications.

Differential diagnosis.

Most often the femoral hernia is taken for the inguinal. The main difference between them is that the inguinal carina goes under the skin above the inguinal ligament and has nothing to do with the femoral vessels, and when it is set, its outer opening of the inguinal canal is determined.

In differential diagnosis, it should be borne in mind that the femoral hernia is never neutered, never spreads into the moss, it rarely occurs in children.

Sometimes an aneurysmally widened peephole of a large saphenous vein can be taken for the femoral keel. Nevertheless, with this disease, there is almost never a typical pain, the hernia gates and the cough push are not defined.

With enlarged painful inguinal lymph nodes, the entire end should be examined and the source of infection detected.

Therapeutic tactics and the choice of the method of treatment.

Each patient with femoral hernia after appropriate preoperative preparation is subject to surgical treatment. Against the shows for the operation are the same as for other types of abdominal hernias.

Methods of surgical treatment of femoral carina are divided into four groups: 1). Methods of closing the hernia gates from the side of the thigh; 2). Methods of closing the hernial gates from the side of the inguinal canal; 3). Autoplastic and methods; 4). Heteroplastic and methods.

Skin incisions are made vertically over the hernia. The beginning of the incision is placed 2 - 3 cm above the groin ligament. The length of the cut is 10-12 cm. From operations on the side of the thigh, the methods of Lockwood and its modifications (Bassin and Krimov) and Abrazhanov are used.

After Lockwood, after dissecting the skin and the subcutaneous base, the hernial sac is extracted, opened, the contents are sent into the abdominal cavity, the hernial bag is bandaged and cut off. Closure of the femoral canal is accomplished by sewing the inguinal ligament to the periosteum of the lumbar bone with 2-3 vulvar sutures.

Modification of the Bass in and consists in the fact that after sewing the inguinal ligament to the periosteum of the loneliness, a second row of sutures is applied to the iliac muscle near the oval fossa of the thigh and the paddock to the incision fascia.

To close the femoral hernia gate through the inguinal canal, the Rudge method is used. Open the inguinal canal, its contents are taken to the top. Dissect the back wall of the inguinal canal. The hernial sac is transferred to the inguinal canal, processed and removed. The femoral gnaw-gum ring is closed by suturing the back of the inguinal ligament to the zhuhvinne-lonnoye connection with 3- 4 sutures. Restore the inguinal canal.

Plastic methods are used in cases of large hernial gates, if they are difficult to close by conventional methods. Of the many proposed autoplastic methods, only a few have found practical application. Karavanov's method - after the treatment of the hernial sac, plastic hernia grafts are flapped with an aponeurosis flap of the external oblique abdominal muscle. The flap is 2-4 cm long, retreating 1.5 cm above the inguinal ligament, passing it through the femoral canal and sutured to the periosteum of the lonely bone, lonelial ligament and lacunar ligament.

Alloplastic and both heteroplastic and methods of closing the femoral hernia gate are almost not used today.

The postoperative period in patients with femoral hernia does not have specific features. The regime after surgery is active, skin seams are removed for 7-8 days. Dismissal from work from two weeks to a month.

According to the literature, the recurrence of the femoral carina is 6-33%. Relapses, the more, the more complex and traumatic is the most method of operation.

Umbilical hernia.

The navel hernias are called protrusions that extend through the navel ring or the anterior abdominal wall of the navel site.

Umbilical hernia in adults is 5-12% of the number of all hernias of the anterior abdominal wall. Some women are also found in women and people of the old age.

The causes of navel hernias in children and adults are different. In children, they are the result of underdevelopment of the umbilical ring, primarily the ventral fascia, which covers the inside of the umbilical ring. The superficial portion of the umbilical ring has its upper part, where the umbilical vein passes, which has no muscular membrane. These anatomical prerequisites and weaknesses in the site of the navel ring in association with factors and diseases that will cause the increase in intra-abdominal pressure contribute to the formation of abdominal umbilical hernias in children.

A significant predominance of the frequency of umbilical hernias in women is explained by anatomical and physiological features - a wider white belly line and weakness in the navel ring section, pregnancy and childbirth. The formation of umbilical keels is facilitated by difficult physical work, fixing, visnazhyuch and diseases, obesity. The navel hernia is often combined with a pendulous abdomen, with the diastase of the rectus abdominis muscles.

Classification. Distinguish: 1) hernia of the umbilical cord (embryonic hernia); 2) umbilical hernia in children; 3) umbilical hernia in adults

The navel hernias of adults are divided into straight and oblique. Direct umbilical hernias occur in the case of a delicate transverse fascia in the navel ring segment. In such cases, the internal organs protrude the peritoneum, respectively, the umbilical ring, and exit into the subcutaneous tissue of the abdominal wall in the shortest possible way. Slanting umbilical hernias are obtained in cases where the transverse fascia is thickened, respectively, by the umbilical ring. In these cases, the hernial protrusion begins to produce a higher or lower umbilical ring, and the hernial sac passes between the transverse fascia and the white abdominal line, forming the so-called umbilical canal, and then through the umbilical ring emerges into the subcutaneous tissue of the anterior abdominal wall.

Hernial bag of navel keel covered with skin, subcutaneous tissue and transverse fascia (Fig.42)

Clinical symptoms. The clinic of navel hernias in children is manifested by restlessness of the child, abdominal pain due to irritation of the organs in the hernia gates. Hernial protrusion at the navel site appears when sheathing or in the vertical position. The contents of the hernia - a loop of the small intestine, easily recovers into the abdominal cavity. In the horizontal position of the child palpuetsya expanded umbilical ring.

Treatment of umbilical hernias in children can be conservative and surgical. In cases where the hernia in particular does not bother the child in the first three years of life, conservative treatment is used. It includes:

massage of the abdominal wall, therapeutic gymnastics, bandage with sticky plaster. If the age of 5 years of treatment does not occur - the indicated surgical treatment. The operation is carried out under common zakenures. After treatment of the hernial sac plastic hernia gates are performed according to Lexer by the application of the sutured suture along the edges of the aponeurotic defect.

With large hernias in children, the plastic of the hernial gates is performed according to Sapezhko, that is, with the creation of a double cartilage aponeurosis. The operation is performed from a vertical incision with excision of the navel.

It is often used transverse plastic surgery of the hernial gates with an umbilical hernia in the Mayo method. The operation is performed with two transverse operas of explant incisions with the removal of the navel.

In adults, the clinic of the navel hernia depends on the size of the protrusion, the nature of the contents of the hernial sac, the presence or absence of complications, concomitant pathology. The main symptom - pain can occur during physical loading, cough, vomiting, and other conditions, which are accompanied by increased intra-abdominal pressure due to the building of a hernia in the narrow hernia gates. With large hernias often patients are concerned about pain in the protrusion site, faintness, stool retention, vomiting.

When viewed, a protrusion at the navel site is noted. The enlarged umbilical ring is defined palpation. If unregulated, the hernia of protrusion has the form of a multi-chamber sac, in which the loops of the intestines can contour. The protrusion has a mildly ductile consistency. Of the additional diagnostic methods, abdominal radiography is used in the lateral projection to determine the nature of the contents.

Therapeutic tactics and the choice of the method of treatment.

Hvor and navel keel are subject exclusively to surgical treatment. The choice of the method of operation should be clearly individualized in each specific case.

Preoperative preparation includes adaptation of the cardiovascular and respiratory systems. Important is the maintenance of a slag-free diet and cleansing of the intestines, which reduces the reliability of various increases in intra-abdominal pressure after surgery,

For zanechulennya frequently, is used endotracheal anesthesia with m iorelaksantami. He allows to create optimal conditions for closing the hernial gates. The incision of the skin and subcutaneous tissue is performed taking into account the magnitude.

Herniation of the white line of the abdomen.

Hernias of the white line of the abdomen (hernia linea alba) account for 11% of the total number of abdominal hernias. They can occur in different parts of the white line.

In the man's husband there are also abdominal ones, and in the women around the navel hernias. In the childhood, the hernia of the white line is almost non-existent.

In most cases aponeurotically and the fibers that form the white line of the abdomen closely adjoin one to one and therefore from the side of the abdominal cavity the white line has an equal and smooth surface. In other cases, aponeurotics and fibers in individual areas do not densely fit one to one, and then different values ​​of the gap are obtained in the white line. At the same time, on the back surface of the white line, grooves are obtained, due to which the peritoneum is protruded.

In the development of hernias of the white line, it is important to increase intra-abdominal pressure, which facilitates the penetration of the extra-cellular fat in the slit of the white line. First, the overdraught lipoma is obtained, which, increasing in size, eventually tightens the peritoneum, from which the hernial sac subsequently forms.

Hernias of the white line are mostly of small sizes - from 1 to 10 cm.

The contents of hernias of the white line are a large cap, a loop of the small intestine or the large intestine. In cases where the hernia is short, their contents may be the bladder or its diverticula.

The hernial sac of the white line is covered with subcutaneous tissue, transverse fascia and pre-celiac fiber.

Among the factors that contribute to the expansion and refinement of the white line, and so, and the formation of hernias, difficult physical work and pregnancy are essential.

Classification. By localization, the abdomen are distinguished, near the navel and nidhere. The most common abdominal hernias (81.5%), p lower-navel-navel and (15.1%), p-cavernous and hernia are found in 0.3% of patients. Multiple hernias of different locations are found in 3.1% of patients on the hernia of the white line of the abdomen.

Clinical symptoms. In most cases, the clinic of hernia of the white abdominal line is not very pronounced. For transdermaline limes, a characteristic lack of clinical symptoms. With real hernias, patients notice pain in the area of ​​the hernial protrusion, which is strengthened by physical loading, anterior abdominal wall tension and palpation. Often there is also lightheadedness, eructation, heartburn, a feeling of embossing in the epigastric area, irradiation of pain in the hypochondrium. In patients with obesity, if small hernias are difficult to identify, these symptoms of hernias of the white line are judged by mistake as manifestations of diseases of the stomach, duodenum, liver, biliary tract, pancreas and even the appendix.

When viewed in cases of large hernias, one can see protrusions in the corresponding section of the white line. Nevertheless, often these eyes are not visible in the eye, especially in artificial insidia.

To diagnose hernias of the white line of the abdomen, this method should be used. The patient should lie horizontally on his back. Carefully palpate the site of the white line at rest, and then with the tension of the muscles of the anterior abdominal wall. In cases of available hernias, they are relatively easy to detect in this way.

Differential diagnosis.

Hernias of the white line of the abdomen can simulate lipomas, ipibol ipomi, neurophisibroma. The general sign of these tumors is the free displacement along with the subcutaneous tissue in the fold, the absence of pain and the leg, which in cases of a hernia, is directed to the aponeurosis. In addition, the simulated hernias of the white line can multiple tumors of other parts of the body (lipomatosis, neurophysiology), metastatic tumors.

Therapeutic tactics and the choice of the method of treatment.

Hernias of the white line of the abdomen are subject to surgical treatment.

The nature and extent of surgical interventions for hernias of the white abdominal line depends on the localization and size of the hernia, anatomical changes in the white line of the abdomen. It should also be taken into account the presence of concomitant hernia diastasis of the rectus abdominis muscles. The same factors affect the choice of the method of zynchulenya.

When small and medium-sized hernias and over-eared lipomas are used, local zlechulenne infiltration anesthesia or its association with neuroleptanalgesia. In cases of large, multiple or recurrent hernias, the best option is an endotracheal anesthesia using m iorelaksant iv.

The skin is cut in longitudinal or transverse directions. The hernial gland is isolated and treated in the usual way. Aponeurosis of the white line is dissected lengthwise and, deviating from the edges by 2 cm, is released from fatty tissue. The plastic surgery of the hernial gates is carried out according to Sapezhko-Diakonov, that is, they create a duplicate of the aponeurosis.

In cases of pre-extramural lipoma, the operation begins from its isolation from the surrounding fatty fiber and from the edges of the aponeurosis, and then dissected to establish the presence or absence of a hernial sac.

In the case of yogo abscess, the lipoma is immersed under the aponeurosis, the edges of which are sewn with a c-suture or vulvar sutures.

Recurrences of a hernia of a white line the rarest.

Diaphragmatic hernia.

Diaphragmatic hernia - movement of the abdominal cavity organs into the chest cavity through defects in natural openings and weak areas of the diaphragm.

In the diaphragm, the part that is located on the periphery is distinguished. The muscular part of the diaphragm, corresponding to the place of the beginning of the muscle fibers, is divided into 3 sections: thoracic, re-bernic and lumbar. Between the muscular parts of the diaphragm are gaps in the form of triangles, whose apex is inverse to the tendon center, and the base - to the periphery of the diaphragm. Absence of muscle fibers in these areas makes them the weakest places of the diaphragm, where hernias can be obtained. Isolate the sternum-rib triangle of Larray, the lumbar-costal triangle of Bogdalek.

Within the diaphragm there are a number of holes: the inferior vena cava, the aorta and the esophagus.

Classification.

Hernias of the diaphragm by origin can be divided into traumatic and not traumatic. Depending on the presence or absence of the hernial sac, respectively, are allocated to real and not real ones.

Traumatic hernias are almost always not real, because they arise as a result of rupture of the diaphragm.

Among the non-traumatic hernias of the diaphragm, it is not the real neural hernia or defect of the diaphragm that secrete. The remainder of non-traumatic hernia of the diaphragm is real and can be divided into a hernia of weak areas of the diaphragm, a hernia of atypical localization and hernia of natural apertures of the diaphragm.

Present hernias of weak zones of the diaphragm arise as a result of those or other conditions that contribute to increasing intra-abdominal pressure, reducing the tone of those parts of the diaphragm, which represent the site of the connection of its different sections. This is the zone of the sternum-rib triangle located at the junction of the sternum and rib divisions of the muscular part of the diaphragm and the Bogdalek gap-the lumbar-costal triangle, located between its respective sections.

Among the hernias of the natural apertures of the diaphragm the most common hernia of the esophageal opening. To rare forms of hernias of natural apertures are the hernia of the opening of the inferior vena cava, and also the aortic slit. Nevertheless, they are so rare, but they have practically no practical value.

Clinical symptoms.

The clinic of hernias of the diaphragm depends on the building and kinks in the hernial gates of the abdominal organs, which are moved to the chest cavity, lung building, or the displacement of the mediocrity, which crept through crevices of the diaphragm by creations and from the disruption of the function of the diaphragm itself.

Therefore, all the symptoms of a hernia of the diaphragm can be divided into gastrointestinal and, conditioned by the violation of the activity of the displaced abdominal organs and the card of the ioresattrone, and associated with the lungs and the displacement of the mediocrity.

The most characteristic symptoms of diafragmalnaya hernia are: the appearance or strengthening of pain in the adjacent area, corresponding to the half of the thorax or hypochondrium, as well as a feeling of heaviness, dyspnea and palpitation immediately after eating, especially in significant amounts. This lays the sick to restrain themselves in food, which, in some cases, leads to exhaustion. Often after eating, vomiting occurs, after which comes relief. A typical symptom is a sensation of gurgling and grunting in the chest on the side of the hernia, as well as an increase in dyspnea during the transition of patients to a horizontal position.

At the review there is a decrease in the mobility of the chest on the side of the hernia, the smoothness of the intercostal spaces. With long-acting hernias, abdominal entrapment can occur. Percutally above the chest on the side of the lesion, a blunt-tympanic sound is noted;

auscultatory - the easing of chi and the absence of respiratory noises, instead of which peristalsis is heard, and noises and noise of splashing.

Laboratory and instrumental diagnostic methods.

An accurate diagnosis of diafragmal hernia is possible only with X-ray examination. When fluoroscopy chi graph of the diaphragm, a gas bubble of the stomach or the intestinal loop is defined as a diffuse darkening of the pulmonary stalks with areas of chi enlightenment, against the background of the gas, and the haustraces.

When contrasting the examination of the slender-intestinal tract is contrasted and the organs are located at the diaphragm's forehead, and the place of their passage through the diaphragm is defined as "the symptom of the hernial gates" or "the symptom of flow".

Therapeutic tactics and the choice of the method of treatment.

In patients on the hernia of the diaphragm, the possibility of pinching is a direct display to the operation. Preoperative preparation consists in the appointment for 2 to 3 days to a diet operation, which gives had slag, laxatives and on the threshold of the operation and early in the day of the operation of cleansing enemas. Znuchulenya - endotracheal anesthesia with relaxants. When parasternal-them hernia is used laterotomy. In operations on the right or left dome, the diaphragm is used by the thoracotomy.

The purpose of the operation with diaaphragmatic hernia is the deletion of displaced organs to its anatomical site and suturing the defect in the diaphragm. The edges of the defect in the diaphragm are sewn by vulgar thick thick silk threads with the creation of a double cloth.

Management of the postoperative period is very small compared to this after surgery on the gastrointestinal tract.

Hernias of the esophageal opening of the diaphragm.

Hernias of the esophageal opening of the diaphragm is a common disease. X-ray, it is diagnosed in 5-10% of patients with X-rays of the stomach for "gastric complaints".

Some people are sick with people of old age. Hvor and, the younger 40 years make up 19%. Slipping or axial hernia of the esophageal aperture of the diaphragm occurs more easily and constitutes 80-90% of all diafragmal hernias.

Anatomico-physiological data. The esophagus passes through the aperture in the diaphragm - and its lower enters the stomach at an acute angle (the angle of the nose). Correspondingly, at the apex of this angle, the folds of the mucous membrane, which function as a cardiac valve (Gubarev's valve), are produced by the pro-light of the stomach. In addition to the valve in the area of ​​the cardia, there is also a pulp, whose role is played by the circular layer of the muscular membrane of the terminal section of the esophagus. Outside swallowing, this pom pom is morally saved. These abbreviations, together with the action of the Gulbarov valve, prevent the gastric contents from escaping into the esophagus. During the throat of food-water-card, the orange pulp relaxes reflexively and lets the contents of the esophagus into the same loop.

Classification.

The most common is the classification of diafragmal hernias, proposed by B.V. Petrovsky. .

Classification of hernia of the esophageal opening of the diaphragm.

I. Slipping (axial) hernia of the esophageal opening.

Without shortening of the esophagus 3 shortening of the esophagus

1 - card ala

2 - cardiophandals

3 - subtotal gastric

4 - total gastric

II. Paraesophageal and hernia of the esophageal opening.

1 - fundamental

2 - antral

3 - intestinal

4 - intestinal-lumpy

5 - stuffing box

Clinical symptoms.

Due to the poor tone of cardiac pulmonary tuberculosis and the development of gastroesophageal reflux and reflux esophagitis, the pain of the abdominal region, the feeling of heartburn after the chest, the pain of irradiation in the heart area, in the left hypochondrium or in the ichoplacial space. The pain occurs after 20-40 minutes after eating, increases in a horizontal position, with physical loading and increased intra-abdominal pressure. Continuous regurgitation of the gastric contents into the esophagus is responsible for the development of the esophagus with virazkuvannam and cicatricial stenozuvannam. Not an exception are bleeding from the formed ulcers and, as a consequence, the development of anemia.

The paresisophageal hernia is characterized by the fact that it is prone to pinching.

The final diagnosis is established after X-ray examination, especially in the Trendelenburg position and with compression of the anterior abdominal wall. The main radiographic evidence of a hernia of the esophageal aperture of the diaphragm is the presence of any part of the stomach above the diaphragm.

Therapeutic tactics and the choice of the method of treatment.

Treatment of a hernia of the esophageal opening of the diaphragm depends on the nature of the hernia. When paraezo-phageal hernia shown surgical treatment in connection with the possible possibility (50%) of its pinched. Sliding hernias in most cases do not require surgical treatment. Such patients are recommended frequent and not large portions of food (5-6 times a day) with the exclusion of sub-items and hot dishes, antispasmodics, vegetable oil before meals. Only in the absence, the early (up to 6 months from the operation), late (after 6 months from the operation).

The presence of the effect of conservative treatment of patients with severe symptoms of reflux-esophagitis is recommended for surgical treatment. Demonstrations for the operation also have anemia and bleeding, peptic stenosis of the esophagus, a turn in the stomach, a suspicion of the development of a malignant tumor.

Anesthesia is an endotracheal anesthesia with relaxants.

Surgical access can be via the pleural tracheoabdom inalny. Operation with a sliding hernia should solve two issues: the elimination of the hernia itself, and, first of all, the restoration of the valvular function of the cardia. The main stage of the operation that can be performed both through the abdomen and through the pleural emptiness is the stitching behind the esophagus one to one of the medial legs of the diaphragm. It is customary to call such an operation a cirorraf. It is performed only in conjunction with any other intervention specifically aimed at restoring the valvular function of the cardia.

To restore the cardiovascular valve, esophagodafundoraf, i.e., stitching the stomach bottom with the esophagus, is performed, as a result of which an acute angle of Gis is restored.

In cases where the function of the esophageal-gastric pulp is significantly affected, the ezofagofun-doraf is ineffective. Such a patient is shown the operation of creating a venipuncture valve around the esophagus -fundople ikatsya.

The operation of the fundus should be supplemented with iloroplasty, since pylorospasm can develop due to the formation of the vagus nerves.

When applied according to the displays and the correct technical performance, the esophagofundoraph and equipments are 90% good and satisfactory.

Postoperative hernia.

Postoperative hernias are obtained after surgical interventions on the abdominal organs in the postoperative cicatrix.

Postoperative (ventral) hernia complicates 6-10% with laparotum and up to 26% of grizenos eggs are found. The results of treatment of postoperative hernias can not be considered satisfactory through a high frequency of relapses, which reaches 15.2-45.2% and mortality after scheduled operations within 3-7%.

There is an ionology and pathogenesis.

The increase in the number of operations on the abdominal organs, the growth of postoperative wound infection, an increase in the number of patients operated on obesity, diabetes mellitus, and immunodeficiency status. Radiation injury and other causes led to an increase in the number of postoperative hernias in the last decade.

Among the reasons that contribute to the emergence of postoperative hernias there is a deep suppuration of wounds, ligature norys and, adventitious, irrational laparotomy up to stupa. The reason may be technical errors of the surgeon - sewing of heterogeneous tissues, drainage of the abdominal cavity through the main wound, superimposed excessively frequent or rare sutures on the aponeurosis.

In the elderly and elderly people, the factors that cause the development of postoperative hernias are flabbiness of abdominal wall tissues, concomitant diseases of the cardiovascular and respiratory systems.

Classification.

The existing classifications of postoperative hernias provide for the distribution of them to the groups and groups:

7. According to the state of hernia contents: pinched in the right and, partially unrecoverable and, unrewardable and.

2. In size: small - up to 5 cm, medium - from 6 to 15 cm, large - from 16 to 25 cm, huge - from 26 to 40 cm, giant - more than 40 cm.

3. Localization of hernial protrusion: upper median; medium mean; lower middle; sides and.

4. In the form of a hernial protrusion:

Single-chamber, multi-chamber.

5. The number of hernial protrusions:

Single, multiple.

6. The frequency and timing of the onset of a hernia:

7. Primary, recurrent comorbidities:

Without concomitant pathology;

With concomitant pathology.

 8. According to the degree of disability:

Without disability;

With disability;

With total disability.

Clinical symptoms.

The clinical course and symptomatology of postoperative ventral hernia depends

from the size of the hernial protrusion, the localization of the nature of the contents, the concomitant patology.

A constant complaint is a protrusion in the postoperative cicatrix. In addition to protrusion of patients, pain in the area of ​​hernia, dyspepsia and discomfort, discomfort in the abdominal cavity, stool disorders. In patients with large hernias, a permanent symptom is the fixation. Dysuric and discordant can be in patients with lower midline laparot and recession into the hernia of the bladder.

The review of patients should be carried out in the position of the patient on the back with the chairman to the sternum standing and standing. Pay attention to the localization of the hernial protrusion, its shape, size. When palpation, the hernia determines its shape, size, whether it is correct or not, the size of the hernial gates. Of the instrumental research methods, an x-ray and radiographic symptom of a cough push is essential.

Unresponsiveness of hernia requires surgical treatment to prevent more

severe (acute) complications.

Tumors of a hernia

Tumors of a hernia can come from different elements of a hernia: the hernial sac, the contents of a hernia, the membranes of a hernia. In relation to a hernial sac tumor, hernias are divided into tumors of hernia contents, tumors of the bag and tumors from the outside of the bag. Tumors of the herniated joint is a different tumor of the organs, which can be the contents of a hernia: a cap, a small or large intestine, a stomach, an uterus, a bladder. Particularly in the hernia are detected tumors of the small or large intestine.

The most frequent tumors of the hernial sac may be lipoma, fibroma, papilloma chi mezotelel ioma. From the outside of the hernial sac, lipoma can not be encapsulated in the inguinal hernia, spiluchnotkininin and tumors - skin fibromas, lipomas, skin nuances.

Hitching hernia

A pinched hernia is a condition in which in the hernial sac vipavsh and organ are strongly compressed, followed by a violation of the function, blood supply, innervation. Injury of the hernia is a frequent complication that requires urgent care. It is observed in 15-20% of patients with hernias.

There is an ionology and pathogenesis. The essence of pinching is the sharp building of the contents of the hernia in the hernia-gates or (rarely) in the neck of the hernial sac.

According to the pathogenesis, three forms of pinching are distinguished: elastic, caloric, mixed. The most common elastic pinch. It develops as a result of a sudden increase in intra-abdominal pressure, as a result of which the hernial gates are excessively stretched, and after decreasing intra-abdominal pressure, the organs contracting and squeezing the organs, which at increased pressure, went into the hernial sac. Pincushion occurs predominantly when the intestine is filled. Factors that contribute to the elastic pinch can be the small size of the pinched ring (small hernial gates), reduced elasticity and compliance of the tissues of the hernial gates, insertion into the hernial sac of some other organ. Generalizing the causal factors, it can be said that the pinching is predetermined by the inconsistency of the volume of the viped internals with the dimensions of the missing, pinching hole.

Stigma, observed earlier, develops slowly, especially in patients of the pre-clone age, who are prone to pinching willows. This pinching often develops when the hernias fail. The main condition for the formation of fecal pitting is the accumulation in the intestinal loop of a significant amount of rare or hard feces. In this case, there is either a calotic pinch like a strangulation of the innervation without a rare building, or a calotte pinching by the type of flexion of the inactivity from the inflection of the corresponding part of the intestinal loop relative to the excessively stretched drive section.

Mixed pinched. In cases where a calotte pinch is not timely eliminated, it may end in an elastic one.

This is facilitated by the rapid progress of feces and retardation with its elimination. Fecal and mixed pinches are often met in people of the advanced and old age, predisposed to thrombosis, and the tone and trophism of the intestinal wall is often reduced and therefore the death of intestinal loop develops rapidly.

The described pinching of almost all internal organs: loops of intestines, cap, stomach, spleen, liver, gallbladder, ovary, uterine tubes, uterus. Pincushion of the small intestine occurs in 63-68%, thick - in 6-8%, thin and thick - in 3-4%, cep - in 16-20%, omentum and intestine - in 4-5%. Other organs are jammed in single cases.

By forms of pinching, the retrograde and the prick of the Inca are isolated.

Retrograde pincering is such a pinch, if the part of the loop that lies in the hernial sac, but that part that is in the abdominal cavity, lingers.

In this pinching, the loops of the small intestine are arranged in the form of the letter \ B, that is, two loops distributed at the bottom, in the hernial sac, and the connecting middle loop is located at the top, in the abdominal emptiness.

Retrograde pinches occur in 3-6% of all pinched hernias, about 80% of them come from inguinal hernia.

Prist Inca pinch is such that when a narrow, pinchy ring is inserted and squeezed not the whole wall of the intestine, but only a small part predominantly along the edge free from the swell. Priest Inca pincering occurs in 2-4% predominantly in young and middle-aged people, r more in cholov ics than in women (1: 3).

Classification.

By pathogenesis:

1. Elastic

2. Feces

3. Mixed

On the clinical course:

1. Acute

2. The chronic

By forms of pinching:

1. Retrograde

2. Priest Inca

Clinical symptoms.

The clinic of the hindered hernia is characterized by acute sudden pain in the hernia. The pain is so strong that the patients groan and scream. Reflex vomiting may occur. After 2-3 hours in cases of a pinched colon, a clinical picture of intestinal impassability develops.

Local marked significant (compared with the usual in a particular patient), increase gry-chewing protrusion, the stability of its size when changing the position of the body. Palpation of hernial protrusion increases pain, examination of hernial gates is impossible both through pain and through a significant hernia strain. Kashlevy push is negative, with cough the size of the hernia does not change. When percussion in cases of pinching of the hollow organ, tympanitis and dullness are determined - when the omentum, bladder is entrapped. Auscultatory in the jammed loop of the intestine, the noise of fluid movement is determined.

In the first hours after the hernia, the abdomen is soft, painful in the area of ​​the hernia gate. In the next clinical picture of intestinal obstruction develops, and later - and peritonitis.

Not always a hernial protrusion is visible. Failure to develop a pinched hernia may not be aware of having it in it and when conceding to a surgical department with signs of an acute abdomen, indicates symptoms of a general nature or intestinal obstruction. Therefore, for the differential diagnosis of each patient with symptoms of an acute abdomen, it is necessary to examine the typical sites of exit of the abdominal hernias. In incomprehensible, difficult for diagnostics cases, at suspicion on prich inca pinched it is necessary to use UZD survey a roentgenography of a stomach.

Therapeutic tactics and the choice of the method of treatment.

The therapeutic-tactical setting with the hampered hernia consists of the following: independently of the timing, species and location of the pinch, the clamped hernia is subject to an ex- tensive surgical treatment.

Any attempt to restore a hernia is unacceptable. Exceptions are patients who are in extremely difficult condition through concomitant diseases, in which no more than 2 hours have passed since the moment of pinching. In these cases, for example, surgery for the patient presents a significantly greater risk than hernia management, an attempt can be made to gently correct the hernial contents into the abdominal cavity.

Before repositioning it is necessary to carry out the following steps and manipulations in this sequence:

1. Subcutaneous enter 1 ml of a 0.1% solution of atropine;

2. Empty the bladder;

3. Wash the stomach with a probe;

4. To put a cleansing enema;

5. Make a warm bath.

If, after this, the hernia does not recover, put the patient's head horizontally with something depressed head, suggest that he take a few deep breaths and by careful pressing near the hernial gates try to push the contents into the abdominal emptiness.

If these measures are ineffective, then it is necessary to operate, despite the severity of the condition, after the corresponding preoperative preparation.

There may be cases of falsified corrections, variants of which are presented on.

In cases where the hernia is suppressed by conservative measures, the patient must be hospitalized in the surgical department no less than 2 pores for observation, in order to detect the progression of necrosis after the intestinal loop is tightened and the development of peritonitis.

Individually, it is necessary to solve the problem of surgical treatment of persons with a hampered hernia, in which, upon assignment to the hospital, after preoperative preparation (sanitation, premedication), the hernia is unauthorized. Such patients, in the absence of serious co-morbidities, it is necessary to operate at the same time that patients with a pinch, that is, urgently. Persons with a significant risk for emergency surgery, in which there are no signs of peritonitis, should be monitored and obstudy. If there are signs of peritonitis, the patient must be operated in an emergency. If there is no complication from the side of the abdominal cavity, the patient is operated on in a planned manner after appropriate examination and preoperative preparation.

Patients with cramped hernia, complicated by phlegmon and patients with inflammation of the hernia or its injury are also subject to urgent surgery.

Important is also the provision that all hernias with suspected pinching should be considered jammed. In accordance with this assessment, therapeutic measures are also carried out. This tactic allows you to avoid mistakes in the diagnosis and treatment of restrained keel.

Surgical intervention and znuculenya with complicated hernia has its own characteristics.

Patients in difficult condition due to intoxication for many hours of jamming or difficult accompanying pathology necessary intensive preoperative preparation: the introduction of cardiac drugs, solutions of Inger-Lock, glucose, vitamins, plasma, Refortan, albumin.

The operation of a complicated hernia can be performed under an expensive kind of zanechulenia when the surgeon owns it.

Local anesthesia meets znachulennya requirements for surgery for unrecoverable and small pinched hernias in young people. In all other cases, the common anesthetic is shown (intravenous with neuroleptanalges and ia, endotracheal). A competitive method with common znachulennyam for people of advanced age with complications of hernias and persons with large venous throats of an expensive age can be epidural anesthesia.

An emergency operation with a clamped hernia has a number of fundamental differences from the planned operation with a free hernia.

With a hampered hernia, the primary task of the surgeon is to quickly open the hernial sac and fix the clamped organ. The next stage is the dismissal of the jammed body. It is realized by cutting the pinched ring. The direction of dissection of the hernial ring should be selected taking into account the topographic and anatomical relationships between it and the surrounding vessels, nerves and other anatomical creations. (Fig. 69) The next step is to assess the life-incapacity of the hampered organ. It is determined by such characteristics:

1. Restoration of the usual pink color of the serous membrane;

2. Restoration of peristalsis of the intestine;

3. Restoration of pulsation of vessels that are swollen in strangulation.

If these signs are, the bowel is assessed as viable and immersed in the abdominal cavity. In doubtful cases 100-150 ml of 0.25% solution of novocaine is injected into the intestine of the intestines and the clamped site is heated for 10-15 minutes with tissues moistened with warm physiological solution. If after this absent hoch one of the above-named signs of the loop of the intestine is determined as viable and perform its resection in the borders of healthy tissues. In relation to the strangulation furrow, which is seen well on the gut discharged from the entrapment, these boundaries are 10-15 cm towards the diverticulum and 20-30 cm towards the driving region of the intestine. The passage of the intestine is restored anastomically by type to the end or side to side.

With the phlegmon of the hernial sac, the operation begins with a medial laparotomy under general anesthesia. After laparotomy, they approach the restrained organ from the inside. If jammed kish-ka, then perform a resection of the intestine according to the above-mentioned higher rules and impose an anastomosis. The ends of the restrained part of the intestine are sealed. After the anastomosis is applied, the ventral pustule is sewn tightly and proceed to the operation in the area of ​​the hernial protrusion. Dissect the skin, subcutaneous fatty tissue, open the bottom of the hernial sac, cut the pinching ring equally so that you can remove the trapped organ from the abdominal cavity, including the blind ends left in the abdominal cavity. On the hernial sac in the neck area, without separating it from the surrounding tissues, a suture stitch is applied. The operation is terminated by draining the cavity of the hernial sac. The plastic surgery of the hernia gate in a purulent infection is categorically contraindicated, not only because it is doomed to failure, but also because it can be the cause of the development of difficult phlegmon of the abdominal wall.

Postoperative period with a clamped hernia requires serious attention and includes

following:

1. Painkillers.

2. Hemodynamic and middling, cardiac preparations, respiratory analeptics.

3. Desintoxication therapy (saline solutions, glucose solutions, dry, native plasma).

4. Parenteral nutrition.

5. Antibiotic therapy according to strict displays. It is especially indicated for hernia phlegmon, bowel necrosis, concomitant peritonitis.

For the prevention of pulmonary and thromboembolic complications, the necessary active blood flow regimen, massage, medical and respiratory gymnastics, early getting out of bed.

Sutures are removed for 9-10 days. The period of incapacity for work after surgery for a hindered hernia of 4-6 Sundays.

Inflammation of the hernia.

Inflammation of a hernia is called such a condition, if the incendiary process arising from various causes extends to the hernial sac, its contents, or both. Acute inflammation of the hernia can be of different origin:

1. From the incendiary process in organs that are in hernia (terminal ileitis, ulceration of the stomach, appendix, Meckel's diverticulum, fallopian tube or ovary, saline);

2. From the incendiary process in the hernial sac (cryptogenic infection, tuberculosis);

3. From the incendiary process in organs located in the neighborhood (epididymitis, orchitis, lymph-denit), and also with the spread of infection from the skin (pyoderma, furuncles, ulcers).

Cases of inflammation of the hernia are rare - up to 1% of all cases of hernias. More often the inflammation occurs with serous or serous-fibrinous discharge. Patients are concerned about a slight permanent pain in the hernia, which is amplified by her palpation or correction. For treatment in such cases, appoint a bed rest, for 3-4 days, local cold and antibiotics or sul-phanylamides.

Inflammation of the hernia caused by pus, putrefactive infection from the internal organs runs heavily, the general condition of the patients worsens, accompanied by high fever, shaking, vomiting, hiccups, sometimes stool and gas retention, pain, swelling and redness and skin infiltration. Hernial protrusion considerably increases in size, the intestinal paresis develops. Such cases of inflammation of the hernia require urgent surgical intervention. When performing the operation, the disclosure of phlegmon, as far as possible, one should try to limit the infection by falling to the abdominal cavity. Justified with abscesses, phlegmons of the hernial sac and surrounding tissues, there is a surgical tactic adequate to this when the hernia is cramped.

Coprostasis.

Coprostasis, fecal obstruction, blockage of a hernia is called such a condition, if the lumen of the intestinal loop is closed in hernia by the calves with the development of violation of the permeability of the bowel. It is often observed in persons with a weakened peristalsis of the large intestine. Signs of intestinal impairment with coprostasis and develop slowly, hernial protrusion increases gradually. Circulatory disorders in the gut do not usually develop.

Factors that contribute to the development of blockage of the intestine - there is excessive food, a small amount of peristalsis of the intestine, fixation of a jammed organ. The next stage is the dismissal of the jammed body. It is realized by cutting the pinched ring. The direction of the dissection of the hernial ring should be selected taking into account the topografical anatomical relationships between it and the surrounding vessels, nerves and other anatomical creations. (Fig. 69) The next step is to assess the viability of the anchored organ. It is determined by such signs:

1. Restoration of the usual pink color of the serous membrane;

2. Restoration of peristalsis of the intestine;

3. Restoration of pulsation of vessels that are swollen in strangulation.

If these signs are, the bowel is assessed as viable and immersed in the abdominal cavity. In doubtful cases 100-150 ml of 0.25% solution of novocaine is injected into the mesentery of the intestine and the clamped site is warmed for 10-15 minutes with napkins moistened with warm saline. If after that missing one of the above-named signs of the intestinal loop is determined viable and perform its resection within the boundaries of healthy tissues. In relation to the strangulation furrow, which is seen well on the gut fired from the squeeze, these boundaries are 10-15 cm towards the diverticulum and 20-30 cm towards the driving region of the intestine. The gut transit is restored by an anastomosis according to ty-pu

end to end or side to side.

With the phlegmon of the hernial sac, the operation begins with a median laparotomy under the general drug. After laparotomy, they approach the restrained organ from the inside. If the intestine is obstructed, then the bowel resection is performed according to the above rules and an anastomosis is applied. The ends of the restrained part of the intestine are sealed. After the anastomosis is applied, the abdominal cavity is sewn tightly and proceeds to the operation in the area of ​​the hernial protrusion. Dissect the skin, subcutaneous fatty tissue, open the bottom of the hernial sac, cut the clamping ring so equal that it is possible to remove from the abdominal cavity the clamped organ, including the blind ends left in the abdominal cavity. On the hernial sac in the neck area, without separating it from the surrounding tissues, a suture stitch is applied. The operation is terminated by draining the cavity of the hernial sac. The plastic surgery of the hernia gate in a purulent infection is categorically contraindicated, not only because it is doomed to failure, but also because it can be the cause of the development of difficult phlegmon of the abdominal wall.

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Hernia damage.

Finding the organs of the abdominal cavity with a hernia in the hernial sac, that is under the skin does not exclude the possibility of their injury. This may be the culling of the contents of the hernia or disruption of the integrity of the intestinal wall (rupture), which can contribute to the development of peritonitis, intra-abdominal hemorrhage or hematoma and inflammation of the hernia. The rupture is susceptible to the loops of the intestines, the bladder, and the slaughter - both hollow organs and chepets and parenchymal organs. There are unauthorized gut ruptures in the hernia, as well as ruptures due to a closed or open hernia-hernia.

Damage to the intestine in the hernia will cause the development of peritonitis. So, the clinical damage of a hernia is manifested by signs of an acute abdomen, which requires urgent surgical intervention.

Prevention of hernias.

Existing imaginations of obetiology, pathogenesis and treatment of hernias make it possible to determine preventive measures.

The basis of prophylaxis of hernias is the creation of appropriate conditions in the state, society for a healthy lifestyle. These conditions are the organization of physical and mental labor on the basis of hygienic science, the employment of the state of health, the occupation of physical culture, the timely and systematic treatment of diseases that will cause an increase in intra-abdominal pressure (fix, prostate adenoma, lung diseases).

An important role in the prevention of hernias will play a compliance with the norms of food hygiene, hygiene of pregnancy.

In the prevention of iatrogenic traumatic hernias, compliance with aseptic and antiseptic standards, the use of adequate surgical approaches and methods of hernia graft surgery, thrifty treatment of tissues, rational drainage of the wound are essential.

In the prevention of complications of hernia the leading role belongs to preventive examinations and medical examination, timely recovery of patients with hernias.

5. Materials for activating students during the presentation of the lecture.

The material of the lecture in the process of reading is associated with questions of medical ethics and deontology.

6. General material and methodical support of the lecture:

The lecture uses tables, diagrams, drawings, slides, codograms, slip-doscope, overhead projector, darkened audience, school board.

7. Materials for self-study of students:

A) on the topic of the lecture /, questions, literature, tasks.

Control questions:

- Give the definition of a hernia;

- How are hernias divided by origin ?;

- How are hernias divided by localization ?;

- How are hernias divided according to the clinical course ?;

- What are the constituent parts of a hernia ?;

- Name the clinical manifestations of a hernia;

- List the complications of a hernia;

- Formulate indications for surgical treatment of a hernia;

- What is the name of the surgery for hernia ?;

- What is the clinical course of the strangulated hernia?

- What is the procedure for a hernia?

- What are the stages of surgical intervention in patients with hernias?

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1. Kuzin M.I. Surgical diseases. G .: Medicine, 1995.- P. 331-369.

B) from the topic of the next lecture / literature, list of main issues.

The next lecture is not connected with the above.

Bibliography.

8. The literature used by the lecturer to prepare the lecture.

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