

REVIEWS OF COMPLICATIONS AND TREATMENT TACTICS FOR EXTERNAL HERNIAS OF THE ANTERIOR ABDOMINAL WALL

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Abstract. *In recent years, about 5% of the world's population is herniated. After the operation of inguinal, umbilical, and femoral hernias, relapses are 5-12% or more. The specific weight of postoperative hernias of the anterior abdominal wall is growing every year and their relapses currently account for 20-30% of all operations on the abdominal organs. The number of complications increases, especially postoperative hernias of the anterior abdominal wall among the elderly and senile.*

In this regard, the issues of individual approach to the tactics of surgical treatment, taking into account possible diagnostic data, and improvement of the surgical method of anterior abdominal wall plasty remain relevant today.

The purpose of the research is to improve surgical methods by studying the causes of recurrence of complicated and postoperative hernias.

Material and methods of the research: The results of treatment of 4202 patients who underwent surgery in 2018-2019 in the Department of Surgery of the Samarkand City Medical Association were analyzed. Of the 4,202 surgeries performed, 730 (17.3%) were men with external and anterior abdominal hernia surgery, 209 (31.5%) were men, and 521 (68.5%) were women. Patients ranged in age from 18 to 81 years, with a mean age of 52.2 ± 4.2 years.

Thus, out of 730 patients, 525 (72%) were operated on with herniated discs, 160 (21.9%) with anterior abdominal and postoperative ventral hernias, 18 with umbilical hernia (2.46%), 17 (2.3%) with hip hernia and 10 (1.49%) patients with white line hernia of the abdomen

It is very important to correctly diagnose patients with hernias before surgery. It is known that surgical tactics are determined in hernias depending on their type (straight or oblique hernias).

The clinical signs of hernias are typical. The first symptoms are mild pain in the anterior wall of the abdomen or in sections of the abdomen that are considered to be naturally anatomically weak. In pelvic hernias, pain can spread through the seminal vesicles to the lower abdomen, thighs, and intercostal space. As a result of the increase in the size of the hernias, the pain becomes localized when certain hernias are formed. The appearance of a

bloating symptom in a specific part of the abdominal wall is the most important. Patients experience nausea, jaundice, and reflex pain.

Occurrence of a hernia bulge, enlargement when the patient is standing, shrinkage in the supine position, palpation of varying consistency, auscultation, bowel movements on percussion, tympanic sound, slight stiffness and blunt sound in the bordeaux hernia sac.

On the anterior wall of the abdomen i.e. the hernia gate can be detected in different sizes.

The detection of a cough stimulus sign is the presence of free contact between the hernia sac and the abdominal cavity.

Symptoms of sliding hernias - palpation of the hernia sac reveals a dough-like consistency, and depending on the presence of any organs in the hernia sac, various symptoms (dysuria, intestinal dysfunction, etc.) appear.

According to the literature, the incidence of intestinal injuries in slippery hernias is up to 26.4%, mortality - 1-8.3%. The cause of death is the development of postoperative peritonitis. Special inspection methods are used, especially in slippery types of hernias.

Cystoscopy is used to diagnose these hernias. If the sliding hernia was left-sided, irrigography, colonoscopy, cystoscopy, radioscopy, and ultrasound procedure were used when the colon was expected to be involved. The diaphanoscopy method is used to differentiate testicular abscess in sciatic hernias. It should be noted that gynecological examinations should also be performed to detect hernias in women.

It is known that abdominal hernias have the following 4 complications that are common in practice:

1. Uncorrectable hernias.
2. Inflammation of the hernia sac.
3. Compression of hernias.
4. Coprostasis.

The results of the research and their discussion: Hernia is a complication of the formation of scars between the hernia sac and the organs that make up the hernia as a result of injury or due to aseptic inflammation. Patients with such a complication should be identified in a timely manner and treated promptly. In our follow-up, 153 patients with 525 hernias were diagnosed with incurable hernias, and they were mostly elderly people.

Inflammation of the hernia sheath is caused by internal factors - hernia constriction, acute appendicitis and Meckel's diverticulum. External causes are inflammatory diseases of the skin (boils, carbuncles), maceration of the skin, itching. Hernias were detected in 17 patients with inflammatory bowel disease, and they were mainly found in obese women, people with diabetes, and in some cases, herniated discs.

Compressed hernias (hernia incarcerata) are a very dangerous complication and require immediate surgery. The organs protruding into the hernia sac become compressed in the neck of the hernia, and the disruption of blood and lymph circulation poses a risk of necrosis of the organ. According to statistics, constipation is observed in 8-10% of patients: postoperative mortality is 5-7%, in the elderly it is 10-16%. Of the 730 patients we observed, 84 (10.5%) were hospitalized with signs of hernia compression.

The mechanism of compression is different. With an increase in pressure in the abdominal cavity (heavy lifting, persistent cough, prolonged defecation), the hernia sac expands for a short time. Then at this point gets her internal organs into the hernia sac. Then the hernia ring narrows and the internal organs do not have time to return to their place. In this way, the contraction of the hernia is called elastic contraction.

There is another type of hernia compression, which is called fracture compression. This form of contraction is mainly found in the elderly. The debris inside the hernia sac that falls into the hernia sac gradually increases, and as a result, the outgoing surface of the bowel is gradually compressed. Fossil constriction is observed in cases where the hernia gate is large.

When the handles of the constricted intestinal lining are compressed, swelling first occurs. In the veins of the hernia sac, stagnation develops and clear fluid collects inside the hernia sac. This fluid then goes into a hemorrhagic state. Necrotic changes in the intestinal wall allow bacteria inside the intestine to pass through the intestinal wall, contaminating the hernia water, the hernia water begins to become cloudy, and the patient smells of feces. The hernia becomes a phlegmon of the sac. In some cases, phlegmon is punctured and intestinal leakage is formed.

It is important to determine the viability of the intestinal walls during surgery. Because the necrotic state begins in the inner mucous layer of the intestine, the appearance may be smooth, unchanged. It is extremely dangerous to plasticize a hernia defect by sending such intestinal sutures into the abdominal cavity.

Another important point is to determine the extent of the microcirculation disturbance in the intestinal wall. Because macroscopic detection is difficult, if the intestinal sutures are not resected to the appropriate length during surgery, subsequent necrosis will develop, leading to suture failure. As a result, peritonitis develops and it can lead to the death of the patient. Therefore, it is advisable to resect the incoming intestinal wall 35-40 cm and the outgoing intestinal wall 15-20 cm long.

It should also be noted that part of the intestinal wall is Richter constricted. This kind of contraction is also very severe.

Diagnosis of constriction of a portion of the intestinal wall is also difficult because the hernia fold is small. Especially obese people do not have symptoms of constipation and it is difficult to detect. This contraction is most common in the groin and hip hernias. In most cases, the small intestinal wall is constricted, but the stomach wall (in the white line hernia) and the bladder wall (in the hernia of the bladder) can also be constricted.

Retrograde contraction is very rare. In such a contraction of the hernia, not only the intestinal linings inside the bag but also the handles of the intestinal linings in the abdominal cavity can be compressed in the hernia sac. Such a contraction is also called a W-shaped contraction.

When the anterior wall of the abdomen and large postoperative hernias are multi-chambered, the intestinal lining and cartilage may enter one of these chambers and become compressed. In the remaining chambers, the intestinal mucosa and cartilage freely flow freely into the abdominal cavity. In such cases, the symptom of partial intestinal obstruction develops, which can lead to various serious complications as a result of long-term conservative treatment of the patient.

When the Meckel diverticulum is compressed, it is called a hernia Littre. According to the literature, such hernias are rare (0.5%).

Patients are often referred to the hospital with diagnoses of abdominal adhesions, acute gastritis, attacks of gastric and duodenal ulcers, renal colic, acute intestinal obstruction, and even acute appendicitis.

One of the main reasons for the main diagnostic errors in the pre-hospital stage is the negligence in the examination of patients, the violation of the rules of examination of patients, the lack of attention to areas where there is a possibility of hernia formation.

Patients who wear a bandage or corset for long periods of time do not pay much attention to the pain that occurs in the area of the hernia, do not notice that the constantly recurrent hernia becomes uncorrectable, and the hernia size increases, and as a result miss the compressed hernia. When satellite disease is severe in elderly patients, good hearing and the presence of cerebrovascular insufficiency prevent them from collecting a complete medical history. It is also difficult to detect a compressed hernia in obese patients.

In our opinion, it would be expedient to study elderly patients with hernias for many years, that is, those who carry the "old" hernia as a separate group.

Most patients have comorbidities: general atherosclerosis and coronary cardiosclerosis, ischemic heart disease, asthma, diabetes, pneumosclerosis and other respiratory diseases.

Postoperative mortality is high among such a group of patients.

The outcome of the disease also depends on which organ is compressed in the hernia sac. In our follow-up, there were cases of small bowel, large bowel, colon, uterine tumor, worm-shaped tumor, and constriction of the fatty band of the colon.

Necrosis of the constricted small intestinal lining was observed in 7 patients, and four of them had intestinal lingual gangrene, developed peritonitis, and had intestinal resection. Three of them died as a result of the development of postoperative peritonitis and thrombosis of the intestinal vessels. All three of the dead patients were over 65 years of age.

Another important problem is to determine the viability of the constricted intestinal ligaments. Patients find it difficult to identify them during shifts, in surgeries performed immediately, especially at night. Wrapping the intestinal linings with hot isotonic wipes and wiping them with hot isotonic solutions indicates that their vitality is preserved if the wall is reddened after washing with such hot solutions, vascular pulsation is detected and bowel movement is restored.

However, if these conditions do not occur and they are not sure of their viability, the intestinal mucosa is resected and a "side-by-side" anastomosis is ordered, even if it is not a physiological condition.

An individual approach to each patient is required when choosing a method of analgesia for surgery. Endotracheal anesthesia with muscle relaxation creates good conditions for successful completion of surgery. However, in 82% of cases local anesthesia was used, and in 18% of cases anesthesia was used.

After surgery, critically ill patients, especially the elderly, receive 7500 ED, three times a day heparin, fluids that improve the rheological properties of the blood, of course, treatments that stimulate the activity of the cardiovascular and respiratory systems. Transretal intubation of the small intestine with a long naso-intestinal-Mellori-Ebot probe and colon is performed when symptoms of peritonitis appear.

It is very important to operate on patients with hernias at the planned time.

In recent years, we have introduced plasticization of the external hernias of the abdomen (pelvis, umbilicus, thigh and arrow line) by the Liechtenstein method. Compressed hernias should be operated on immediately. Intestinal ligaments or cervical vertebrae are compressed and resected when they are found unfit for life.

When the hernia sac becomes inflamed and phlegmon is formed, phlegmon should be opened immediately. If the phlegmon of the hernia sac (umbilical hernia) is not very large, resection by the method of I.M. Grekov in the form of a block with the entire hernia sac is also advisable.

A complication associated with stool retention in the colon is called coprostasis. Coprostasis should first be treated conservatively. It is necessary to empty the colon from the product inside, to hold the hernia in a straightened position in the rectified hernias, to make small incisions. If conservative treatment does not give good results, surgical treatment is necessary, in some cases artificial bowel movements may be placed.

In our analysis, 160 of the 730 patients with external abdominal hernias were operated on with anterior abdominal hernia. Postoperative ventral hernias were detected in 49 (31%) of 160 patients. Of these, 32 were women.

At present, the concept of application of atherosclerosis methods of plastic in the treatment of ventral hernias is accepted. As a result of the application of this principle, it has become possible to use synthetic endoprostheses among biological tissues. In the treatment of patients with ventral hernia, the implant can be placed online, sublay, inlay.

Conclusion: Thus, the use of endoprosthesis in the Liechtenstein method with an individual approach to the operation of complications of anterior abdominal hernia and atension of postoperative ventricular hernias is an important factor in reducing the rate of recurrence.



The patient M. is 51 years old. **Diagnosis:** Hernia sac phlegmon. Diabetes mellitus type II. **Complications:** Necrotic fasciitis. Anaerobic phlegmon of the anterior wall of the abdomen. Sepsis.



References:

- [1] Абдуллаев С.А. Қорин чурралари // Услубий тавсиянома. 56 бет. Самарқанд. 2008й.
- [2] Ахтамов Ж.А., Карабаев Х.К. и др. Полимерные аллотрансплантаты в лечении послеоперационных вентральных грыж // Актуальные вопросы специализированной хирургии. Ташкент – 2007 г. –С. 183.
- [3] Абдуллаев С.А., Тоиров А.С. ва бошқалар. Қориннинг олд девори операциядан кейинги чурраларини замонавий хирургик даволаш технологиялари // Доктор ахборотномаси. –2012й. –№2. –С. 9-12.
- [4] Белоконов В.И. и соавторы. Передняя протезирующая герниопластика комбинированным способом при больших и гигантских вентральных грыжах // Хирургия. –2018г. –№5. –С. 45-50.
- [5] Ермолов А.С. и соавторы. Послеоперационные вентральные грыжи - нерешенные вопросы хирургической тактики // Хирургия. –2018г. – №10. –С. 81-86.
- [6] Савельев В.С. Кириенко А.И. Хирургические болезни. Москва, 2006г.
- [7] BINDEROW S. R., KLAPPER A. S., BUFALINI B. Hernioscopy: laparoscopy via an inguinal hernia sac //Journal of laparoendoscopic surgery. – 1992. – Т. 2. – №. 5. – С. 229-233.
- [8] Hu Q. L., Chen D. C. Obturator hernia //Clinical Algorithms in General Surgery. – Springer, Cham, 2019. – С. 797-800.
- [9] Schizas D. et al. Littre’s hernia: a systematic review of the literature //Hernia. – 2019. – Т. 23. – №. 1. – С. 125-130.
- [10] Monica M. L. et al. Internal hernias: a difficult diagnostic challenge. Review of CT signs and clinical findings //Acta Bio Medica: Atenei Parmensis. – 2019. – Т. 90. – №. Suppl 5. – С. 20.