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COMPLICATIONS OF LAPAROSCOPIC PLASTICS IN VENTRAL HERNIA

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Abstract. *Solving of the problem of effective treatment of abdominal hernias is currently relevant because of the prevalence of this disease among people of working age, and quite a high percentage of complications, relapse and mortality. Using laparoscopic techniques can significantly reduce postoperative complications and disability. During the period from 2011 to 2015 laparoscopic plastics in ventral hernia was performed in 1546 patients. Bleeding, bruising groin neuralgia and paresthesia, frozen shoulder pain, subcutaneous emphysema were met often as intraoperative complications. The advantages of laparoscopic hernia repair over traditional methods - it is possibility to inspect the abdominal cavity, the simultaneous closure of the graft of all the weaknesses of the anterior abdominal wall, reducing the duration of hospital stay.*

Keywords*: abdominal hernia surgery, laparoscopic hernia repair, complications*

The problem of surgical treatment of abdominal hernia is very actual, because of the high recurrence rate, especially in operations for postoperative recurrent hernias. However, they may be according to some authors more than 50%, especially autoplastic methods. With the advent of modern materials alloplastic an opportunity to reduce the number of relapses. However, conventional techniques are accompanied by quite a significant soft tissue trauma, leading to severe pain in the immediate postoperative period for disability and up to 1.5-2 months. New perspectives in laparoscopic hernia surgery opens a technique that avoids many of the drawbacks of traditional surgery [1-3].

At the same time, negative features of laparoscopic surgery include the need for general anesthesia and intense carboperitoneum, the probability of damage to internal organs, technical difficulties in the presence of adhesions, postoperative neuralgia and paresthesia, the development of hematomas and accumulation of serous fluid, a long period of development techniques, the high cost of equipment and supplies [1, 5]. Positive aspects considered minor trauma, hernia repair and the ability to perform simultaneous interventions from one access, lower incidence of wound infection [4, 6].

Objective: To analyze the results of surgical treatment of abdominal hernia using laparoscopic techniques

Materials and methods: since from 2011 started laparoscopic hernioplasty. During the period from 2011 to 2015 hernioplasty performed in 1546 patients, including 943 (61%) with inguinal hernias (in 237 of them - recurrent) and 603 (39%) from the ventral (including postoperative) hernias, of which 278 were large, while 90 - gigantic. In 131 of them were relapsed, 92 patients had lateral hernia, 33 of them - recurrent. The age of patients ranged from 18 to 84.

To determine the shape and size of hernia ring ultrasound and CT were used. Application of these methods is especially important in patients with irreducible hernia that allowed the operation to select the type and size of the grid, as well as to determine the most optimal way of its installation.

Pneumoperitoneum under the unconditional presence of adhesions in the abdominal cavity is recommended after the ultrasound scan in place minimally expressed adhesion, and at the maximum possible distance from the hernia sac. We use several methods of "first of injection." The standard procedure using a Veress needle is feasible in patients with predicted poor development of adhesions, confirmed the data of instrumental (ultrasound, MRI) studies. In all other cases, it is desirable to use either the optical trocar, or Hassan technique.

The choice of method laparoscopic plastic depended on the location and size of the hernia ring.Transabdominal preperitoneal plastic (Tapp) was used in patients (86 patients) with inguinal hernias of which 12 had recurrent hernias after repair of Liechtenstein and 14 with bilateral. For the implantation of mesh implants used ULTRAPRO (ETHICON) and PARIETEN LIGHT (COVIDIEN) 15 x 10cm size of his catch hernia-stapling "Protak", as well as a self-PROGREEP (COVIDIEN) the size of 15 x 9 cm and restoration of peritoneum with endoseam. In 5 patients Tapp produced simultaneously with laparoscopic cholecystectomy.

To perform laparoscopic surgery in 29 patients with ventral hernias (umbilical, white line and median postoperative) using the following method, which consisted of intraperitoneal location (IPOM) composite endoprosthesis with layer or non-

absorbable and sutures and fixation trans-aponeurosis by hernia-stapling. Indications for the use of this technique were median hernia medium size (W2-3). It is important to note that we used a prosthesis that completely cover the hernia defect, retreating 5-8 cm around the perimeter.

Along with the intervention of hernia in 20 patients took concomitant removal of abdominal diseases: colotomy in chronic intestinal obstruction was performed in 3 patients, cholecystectomy – in 14 patients and amputation of the uterus - in 3 patients.

Postoperatively, conduct prevention of local inflammatory complications and prevention of pulmonary and thromboembolic complications of conventional surgery techniques. All patients with large and giant hernias applied Hosiery which greatly reduces the pain and reduce the load on the joints soft tissues of the abdominal wall, which makes it possible to give them an active load with the first day after surgery. To reduce the effects of edema at the site of intervention technique used by us magneto therapy the first day after surgery.

Results and Discussion: Of the intraoperative complications often met bleeding (4). In early postoperative period after Tapp marked preperitoneal hematoma in 5 patients, who were diagnosed by ultrasound and eliminated punctures. The average length of in-patient treatment was 2.4 days and ranged from 12 hours to 4 days.

The greatest technical difficulties arose in damage inferior epigastric vessels. 1 noted bleeding from the trocar wound in 3 cases - during dissection of the parietal peritoneum and the stapler. Average blood loss was 147.3 ml. Hemostasis is achieved in all cases laparoscopically - stitching or coagulation. Damage to the inferior epigastric vessels in all cases occurred in patients with obesity I-III degree. We consider it essential to conduct a thorough hemostasis, even with little intensity and duration of bleeding. This is necessary due to the fact that, after the end of surgery deflated small damaged vessels may bleed some time again, causing the development of postoperative hematomas.

Because of the complications associated with the use of carboperitoneum, we noted the development of subcutaneous emphysema in 2 patients.

Postoperatively, the most frequent groin hematoma (4), neuralgia (paresthesia and 2 (5), scapula-humeral pain syndrome (4).

When the IPOM methods of intraoperative complications was not. In the immediate postoperative seroma was observed (6), which were liquidated conservative punctures.

Conclusions. Experience with alloplasty in the surgical treatment of abdominal hernias showed that it is an effective alternative to conventional operations and enables the closure of large defects of the abdominal wall in various ways, including by no tension technology, which greatly reduces the likelihood of post-operative complications, recurrence of complex hernias.

It should be noted specific advantages of laparoscopic hernioplasty over traditional methods - it is possible to inspect the abdominal cavity, the simultaneous closure of the graft of all the weaknesses of the anterior abdominal wall.

Surgeries using laparoscopic techniques are effective, pathogenically justified in recurrent inguinal hernias and ventral hernias of medium size, whereas the large and giant hernias shows open technique.

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Ускладнення лапароскопічної герніопластики

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Резюме. Рішення проблеми ефективного лікування черевних гриж нині актуальна через поширеність цієї патології серед осіб працездатного віку і досить високого відсотка ускладнень, рецидивів та летальності. Використання лапароскопічної техніки дозволяє значно скоротити післяопераційні ускладнення і втрату працездатності. За період з 2011 по 2015 р герніоаллопластіка виконана у 1546 хворих. З інтраопераційних ускладнень найчастіше зустрілися кровотечі, гематоми пахової області, невралгії і парестезії, плечолопатковий больовий синдром, підшкірна емфізема. Гідності лапароскопічної герніопластики перед традиційними методами - це можливість огляду черевної порожнини, одночасне закриття трансплантатом всіх слабких місць передньої черевної стінки, зниження терміну перебування хворого в стаціонарі.

Ключові слова: черевні грижі, хірургічні втручання, лапароскопічна герніопластика, сітчастий імплант, ускладнення

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Осложнения лапароскопической герниопластики

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Резюме. Решение проблемы эффективного лечения брюшных грыж в настоящее время актуальна из-за распространенности этой патологии среди лиц трудоспособного возраста и достаточно высокого процента осложнений, рецидивов и летальности. Использование лапароскопической техники позволяет значительно сократить послеоперационные осложнения и потерю трудоспособности. За период с 2011 по 2015 г. герниоаллопластика выполнена у 1546 больных. Из интраоперационных осложнений чаще всего встретились кровотечения, гематомы паховой области, невралгии и парестезии, плечелопаточный болевой синдром, подкожная эмфизема. Достоинства лапароскопической герниопластики перед традиционными методами - это возможность осмотра брюшной полости, одновременное закрытие трансплантатом всех слабых мест передней брюшной стенки, снижение срока пребывания больного в стационаре.

Ключевые слова: брюшные грыжи, хирургические вмешательства, лапароскопическая герниопластика, сетчатый имплант, осложнения

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