

## NON-TENSION HERNIA PLASTIC WITH INGUINAL HERNIA

Davlatov S.S.<sup>1</sup>, Yunusov O.T.<sup>2</sup>, Suyarova Z.S.<sup>3</sup>, Azzamov J.A.<sup>4</sup> Email: @scientifictext.ru

<sup>1</sup>Davlatov Salim Sulaymonovich - Senior teacher;

<sup>2</sup>Yunusov Oybek Turaevich - Assistant;

<sup>3</sup>Suyarova Zilola Sirliboevna – Student;

<sup>4</sup>Azzamov Jasur Azamatovich- Student,

DEPARTMENT OF SURGICAL DISEASES,  
SAMARKAND STATE MEDICAL INSTITUTE,  
SAMARKAND, REPUBLIC OF UZBEKISTAN

**Abstract:** the study includes the results of surgical treatment of 47 patients. Patients were divided into two groups: the first group of control comparisons carried 33 (70.2%) hernioplasty produced in the usual way of Liechtenstein. In 14 (29.8%) cases, we have applied our method developed alloplasty inguinal hernias and combined these observations into the second main group. In the period from 12 months to 3 years traced the results of surgical treatment in 25 patients in the control group and in all patients of the main group. In the main group in the long term recurrence of the disease was observed. In comparison, the control group, 1 patient with benign prostatic hyperplasia observed relapse. The presented technique of reconstruction of the inguinal canal, aimed at reducing trauma and reducing intervention time, can be used in wide practice.

**Keywords:** inguinal hernia, not tension hernioplasty.

## НЕНАТЯЖНАЯ ГЕРНИОПЛАСТИКА ПРИ ПАХОВЫХ ГРЫЖАХ

Давлатов С.С.<sup>1</sup>, Юнусов О.Т.<sup>2</sup>, Суярова З.С.<sup>3</sup>, Аззамов Ж.А.<sup>4</sup>

<sup>1</sup>Давлатов Салим Сулаймонович – старший преподаватель;

<sup>2</sup>Юнусов Ойбек Тураевич – ассистент;

<sup>3</sup>Суярова Зилола Сирлибоевна – студент;

<sup>4</sup>Аззамов Жасур Азаматович – студент,

кафедра хирургических болезней,

Самаркандский государственный медицинский институт,

г. Самарканд, Республика Узбекистан

**Аннотация:** в основу исследования включены результаты хирургического лечения 47 пациентов. Больные были разделены на две группы: к первой группе контрольного сравнения отнесли 33 (70,2%) герниопластики, производимые обычным способом Лихтенштейна. В 14 (29,8%) наблюдениях мы применили разработанный нами прием аллопластики паховых грыж и объединили эти наблюдения во вторую основную группу. В сроки от 12 месяцев до 3 лет прослежены результаты оперативного лечения у 25 больных контрольной группы и у всех больных основной группы. В основной группе в отдаленном периоде рецидива заболевания не наблюдали. В группе контрольного сравнения у 1 пациента с доброкачественной гиперплазией предстательной железы наблюдали рецидив заболевания. Представленная техника реконструкции пахового канала, направленная на снижение травматичности и уменьшение времени вмешательства, может быть использована в широкой практике.

**Ключевые слова:** паховая грыжа, ненатяжная герниопластика.

UDC: 616.89-02.34-007.43-031:611.957

The actual problem of modern herniology is the choice of the method of plastic surgery, which will reduce the percentage of complications in the near and distant postoperative periods. Autoplasty of inguinal hernias is accompanied by a high rate of recurrence of the disease 8-10% [2, 4, 5]. Therefore, recently the dominant principle of surgical treatment of hernia is currently the implementation of plastics using modern synthetic materials. Prosthetics of the inguinal canal not only significantly reduces the likelihood of recurrent hernia recurrence - according to the literature data to 0-2%, but also allows the patient to return to active life without limiting physical exertion [3, 4, 6]. There are hundreds of different methods of surgical treatment of inguinal hernias. Today's modern methods of non-stretching hernioplasty differ from one another in the technique of restoring the inguinal canal. Some types of operations have as their goal the mechanical strengthening of the inguinal canal, others - the restoration of its function. However, because of its simplicity and reliability, the most popular method for surgeons is I.L. Lichtenstein, which belongs to the group of non-stretch, non-endoscopic plastic. Liechtenstein's method is currently probably one of the most common methods of plastics of the inguinal canal. However, this known method has a number of disadvantages that reduce its effectiveness. Undesirable compression undergoes a spermatic cord, which can lead to a violation of blood supply, swelling of the testicle. In some cases, the patient's inguinal ligament, which is the lower edge of the aponeurosis of the external oblique muscle, does not have sufficient strength and the reliability of the plastics decreases with the risk of relapse.

After hernioplasty in Liechtenstein, relapses occur most often in the medial angle of the inguinal space [4, 5]. This corresponds to the projection of the external inguinal ring and requires additional strengthening of this zone. For elimination of the above-mentioned deficiencies, we propose a new method for reconstructing the inguinal canal for any degree of complexity of inguinal hernias.

The aim of the study is to optimize non-stretching hernioplasty for inguinal hernias by introducing a new alloplasty method.

**Materials and methods of research.** The study is based on the results of surgical treatment of 47 patients who underwent hernioplasty for inguinal hernia in the surgical department of the Samarkand State medical institution clinic between 2012 and 2016. To study the efficacy of the hernioplasty of inguinal hernia proposed by us, we compared the results of treatment in both groups. The first group of the control comparison (GCC) included 33 (70.2%) hernioplasty, produced by the usual Liechtenstein method. In 14 (29.8%) observations, we applied the method of inguinal hernioplasty developed by us and combined these observations into the second main group (MG). In both groups of patients, men predominated (SCC - 94.6%, MG - 91.2%) older than fifty years (GCC - 76.7%, OG - 80.4%). Table 1 shows the characteristics of patients, depending on the type of hernia according to L.M. Nyhus (1993). Skew hernias with an enlarged biased inner inguinal ring without protrusion of the posterior wall of the inguinal canal (type II) were noted in 4 (7.02%) patients in the SCS. Direct hernias (IIIA type) were detected in 5 (8.8%) patients. Slant hernias with a large dilated inner inguinal ring (IIIB type) were observed in 25 (43.8%) patients. In 13 (22.8%) cases, recurrent inguinal hernias were detected (IVA type - direct, IVB type - oblique) [1].

Table 1. Patient distribution by hernia type

Comparison groups Type of hernia	Control comparison group		Main group		Total	
	amount	%	amount	%	amount	%
II	4	12,1	-	-	4	7,02
IIIA	3	9,1	2	14,3	5	8,8
IIIB	18	54,5	7	50	25	43,8
IVA	-	-	1	7,1	1	1,7
IVB	8	24,2	4	28,6	12	21,05
<b>Total</b>	<b>33</b>		<b>14</b>		<b>47</b>	

Results of the study. Of the 47 hernioplasty produced, 14 (29.8%) observations (MG) were performed using a modified hernioplasty method of inguinal hernia. In these patients, after an ordinary cut of skin, the aponeurosis of the external oblique abdominal muscle was dissected. Highly excreted and removed the hernial sac. Then followed the isolation of the spermatic cord throughout its entire length. At the inner opening of the inguinal canal, a transverse fascia was exposed. Under the spermatic cord, a graft (polypropylene mesh, prosthesis) measuring approximately 8 × 12 cm was fed. The next step in the operation was the formation of an internal opening of the inguinal canal. The transverse fascia here was sutured to the lateral margin of the graft along the entire circumference. The inner ring of the newly created inguinal canal should have a diameter of 0.8-1.0 cm. The medial edge of the transplant was sutured to the periosteum of the symphysis and lumbar tubercle. Then, U-shaped seams were placed on the upper flap of the aponeurosis of the outer oblique abdominal muscle, which envelops the edges of the inner oblique and transverse muscles. The first injection of the needle was carried out 1 cm from the aponeurosis edge, then passing the needle through the muscle edges with a puncture at the very edge of the aponeurosis, capturing the posterior part of the polypropylene mesh. The same needle again performed the injection at the very edge of the aponeurosis, passing the needle through the edges of the muscles was carried out 1 cm from the edge and tied the knot. Such stitches are imposed in an amount of 4-5. By pulling the graft, the middle part is fixed to the inguinal ligament and the lower flap of the aponeurosis of the external oblique abdominal muscle with usual nodular seams in the amount of 4-5. The spermatic cord was laid on the formed groove. Further, the front part of the polypropylene mesh was fixed to the upper aponeurosis flap of the external oblique abdominal muscle, which formed the anterior wall of the artificial inguinal canal. Stitches were applied to the skin (Figure 1).

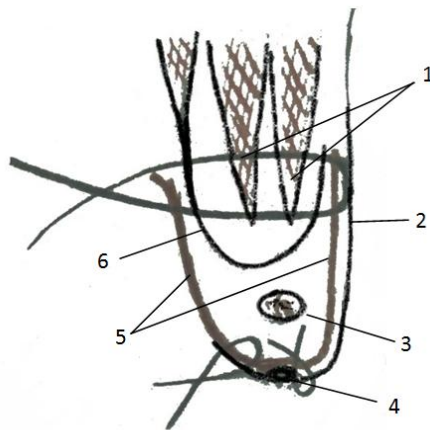


Fig. 1. Scheme of operation. 1 - internal oblique and transverse muscle, 2 - transverse fascia, 3 - spermatic cord, 4 - lower flap of aponeurosis of external oblique abdominal muscle, 5 - allograft (surface and deep part), 6 - upper aponeurosis flap of external oblique abdominal muscle

When performing hernioplasty according to Liechtenstein (GCC), the average duration of the operation was  $56.5 \pm 12.4$  min. Using the method of operation (MG) developed by us, the duration of the operation was  $39.7 \pm 13.6$  min. Thus, in the MG the duration of the operation was less than in the GCC. The pain syndrome after surgery was mild or moderate in all patients. In no case did it require the introduction of narcotic analgesics. In any method of alloplasty, despite the inertness of the synthetic material, a tissue reaction develops around it, accompanied by the release of a large amount of serous exudate, and long persistent seroma are formed [4, 6]. In 8 (24.2%) patients with SCC in the early postoperative period, a persistently persistent gray with maceration of the skin around the wound was observed. In MG, such complications were not observed. Suppuration of the wound was not noted either in the exhaust gas or in the SCC. In the period from 12 months to 3 years, the results of operative treatment were monitored in 25 patients of the control group and in all patients with MG. In the long-term period, recurrences of the disease were not observed. In GCC in 1 patient with benign prostatic hyperplasia, a relapse of the disease was observed. After eliminating the etiologic factor, the patient underwent a repeated operation by a modified method developed by us.

Thus, the presented technique of reconstruction of the inguinal canal, aimed at reducing trauma and reducing the time of intervention, can be used in wide practice. This method is more reliable for the following reasons:

1. The implant is located under the muscles, but is adjacent to the aponeurosis. With this option, firstly, intra-abdominal pressure is uniformly distributed across all fixation points and less likely to tear the tissue from the tissue, secondly, when the mesh is fixed to the aponeurosis, the tissue reaction develops less, with the formation of a persistently persistent seroma.

2. The method is universal, i.e. Can be used in both oblique and direct inguinal hernias.

3. Here, the topographic and anatomical relationships in the inguinal region are much less violated, and in the conditions of hernia repair with recurrent and repeatedly recurrent hernias these relationships are restored.

4. The method is low-traumatic, simple and, most importantly, pathogenetically justified.

**Prospects for further research.** The obtained results can serve for treatment of patients with inguinal hernia with the help of the reconstruction of the inguinal canal and can be used in wide practice.

### References

1. Abakshin N.S. Possibilities of non-stretching hernioalloplasty with restrained postoperative hernias // Bulletin of the Russian University of Peoples' Friendship. Series: Medicine, 2010. № 2.
2. Belyansky L.S. et al. Modern approaches to the choice of an open method of plastic surgery for recurrent inguinal hernia // До Уваги Авторів, 2010. P. 21.
3. Moshkova T.A., Vasiliev S.V., Oleinik V.V. Optimization of alloplasty of inguinal hernias // Herald of the St. Petersburg University, 2008.Ser. 11. Issue 2. P. 140-144.
4. Rotkin E.A., Agalaryan A.Kh., Khokhlova O.I. Aspects of the wound process in the choice of the method of surgical treatment of ventral hernias // Bulletin of new medical technologies, 2014. Vol. 21. № 3.
5. Shamsiyev Azamat and Davlatov Salim. "Factors influencing the choice of hernia repair method in patients with incisional hernias." European science review 1-2, 2017.

6. *Davlatov Salim Sulaymonovich*. "Ways to Eliminate Postoperative Complications after Ventral Hernia Repair in Patients with Morbid Obesity." *American Journal of Medicine and Medical Sciences* 7.3, 2017. 147-150.