



Inguinal Hernia. Causes, Symptoms and Treatment of Inguin Hernia

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ABSTRACT

The aim of the study was to systematize and evaluate the causes of inguinal hernias and, on this basis, to choose the optimal method of treatment.

Keywords:

Inguinal hernia, symptoms, causes, treatment, methods.

Inguinal hernia (IG) is pathology of the lower part of the abdominal wall with prolapsed of the peritoneal organs in the area of the inguinal canal. Part of the intestine, bladder, ovaries, and even the spleen with the greater momentum can protrude into the subcutaneous space to form a hernia sac.

Depending on the location of the hernia sac, inguinal hernias are:

- inguinal, if the hernia sac is located near the external opening of the inguinal canal;
- inguinal-scrotal, if the hernia sac is located next to the testicle, that is, it is lowered into the scrotum;
- cord, if the hernia sac is located in the scrotum, but does not reach the testicle, but is located near the spermatic cord;
- direct, if the hernia goes through the weakened abdominal wall directly into the inguinal canal, and not through its internal opening;
- oblique, if the hernia passes next to the spermatic cord through the inguinal canal;
- combined, if two or more unconnected hernial sacs are formed on one side. [A.D. Timoshin, A.V. Yurasov: 2002]

The occurrence of inguinal hernias is a complex pathophysiological process. There are many causes and conditions that contribute to the appearance of an inguinal hernia. Predisposing factors for the occurrence of inguinal hernias are considered to be local and general factors.

Common factors include: 1) gender; 2) age; 3) heredity; 4) features of physique and constitution; 5) increased intra-abdominal pressure in ascites, obesity, pregnancy, intestinal dyskinesia and others.

Local factors include: 1) the presence of an inguinal canal with extended superficial and deep inguinal rings. The isolated expansion of the superficial inguinal ring does not lead to the formation of hernias; 2) the presence of a high inguinal gap (triangular); 3) weakening of the posterior or anterior wall of the inguinal canal. Hypotrophy of the muscles of the anterior abdominal wall and weakness of the transverse fascia, leading to straightening of the inguinal canal; 4) trauma of the anterior abdominal wall with scarring; and others. [Volodkin V.V: 2006]

Causes of an inguinal hernia:

- the presence of an inguinal hernia in the next of kin (primarily the father). If

the family has this disease, especially in several people, the risk of getting sick increases many times;

- prematurity. In such a child, the development of organs and systems is not fully completed. As a result, the likelihood that the inguinal canal will remain open increases;
- chronic diseases accompanied by severe cough. Cough increases intra-abdominal pressure;
- sedentary lifestyle. The abdominal muscles are weakened without moderate physical exertion. In people who constantly sit or stand at work, inguinal hernias appear more often;
- exhaustion. Normally, the inguinal canal is filled with fatty tissue. If it becomes smaller, a weak spot is formed for the occurrence of a hernial protrusion;
- chronic constipation. With this disease, intra-abdominal pressure increases;
- excessive physical activity. If a person constantly makes great physical efforts and lifts significant weights, the risk of an inguinal hernia increases;
- pregnancy. The uterus enlarges, exerting additional pressure;
- obesity. The load on the abdominal cavity increases with weight gain. [V.F. Osipov, N.A. Mizurov: 2004]

Symptoms of an inguinal hernia are a protrusion in the groin area. In most cases, a visually noticeable swelling appears in the groin or scrotum, initially painless. Its shape can be round or oval; reduction of a hernia in a horizontal position. Most of all, the protrusion is noticeable in a standing position. When a person lies, the protrusion is reduced easily, and at the same time a characteristic sound (rumbling) is heard; enlargement of half of the scrotum. This is a characteristic manifestation of an inguinal-scrotal hernia; an increase in the labia majora (left or right) in girls. Initially painless;

For the surgical treatment of inguinal hernias, many methods have been proposed that can be divided into two groups:

- traditional (stitching fabrics with tension)
- modern (application of mesh endoprosthesis - suturing of tissues without tension) [Yu.A. Nesterenko et al., 1998; V.N. Egiev et al., 2002; A.A. Adamyan, 2003].

The main disadvantages of traditional hernioplasty include: intraoperative complications (damage to the elements of the spermatic cord and nerves, injury to the bladder, intestinal wall), complications from the postoperative wound, a long period of rehabilitation and disability. In this regard, the search for new alternative methods of hernioplasty remains relevant.

In the last decade, the technique of reconstructing the inguinal canal using synthetic materials, developed by I.L. Lichtenstein. When applying this method, the posterior wall of the inguinal canal is strengthened by tissue-permeated mesh grafts placed anterior to the transverse fascia without tension and comparison of dissimilar tissues, which contributes to the biological patterns of wound healing [K.V. Novikov, 2001; V.N. Egiev et al., 2003; I.L. Lichtenstein et al., 1995]

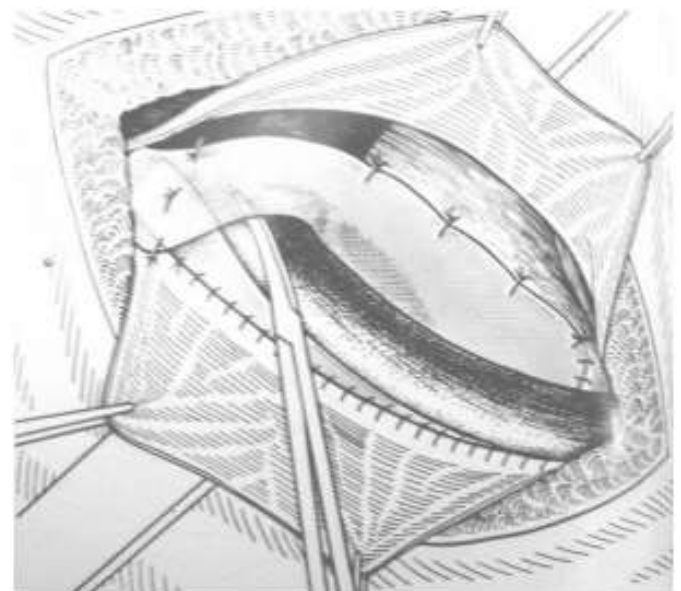


Fig 1. Plastic surgery of the inguinal canal according to the method of I.L. Lichtenstein. The final view of the fixed prosthesis.

Conclusion. Thus, the concept of an individual and differentiated approach to the choice of a hernioplasty method for various types of

inguinal hernias makes it possible to choose the optimal method of surgical treatment for a particular patient. For all types of hernias, only plastic surgery of the posterior wall of the inguinal canal is performed. In case of inguinal hernias, the proposed method of I. Lichtenstein, in comparison with hernioplasty with local tissues, helps to reduce the duration of hospitalization, temporary disability, and reduces the rehabilitation period due to the earlier labor activity of patients.

Literature

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