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PREVENTION OF POSTOPERATIVE LOCAL COMPLICATIONS AFTER ALLOHERNIOPLASTY IN PATIENTS WITH VENTRAL HERNIAS

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Abstract
The problem of postoperative ventral hernias arose simultaneously with the birth of abdominal surgery and remains unresolved to this day. As the number of surgical interventions increases, the number of patients with postoperative hernias also increases. Their number is huge; from 2 to 15% of abdominal surgeries end in the formation of postoperative hernias [2,4,5]. Surgical treatment of hernias is not always effective, and recurrent ventral hernias form, presenting an even more difficult task for the surgeon [2,5]. Particularly difficult to solve technically are hernias that recur many times and hernias with extensive defects of the abdominal wall. The increased number of complex hernias among people of working age, the low efficiency of conventional hernia repair methods, a large number of local and general postoperative complications, frequent disability and limited performance of hernia carriers, and a decrease in the quality of life allow us to consider this problem as one of the most important socio-economic problems of practical healthcare. The correct choice of plastic method for postoperative ventral hernias is the main factor determining the results of treatment. The introduction of tension-free allohernioplasty methods has significantly improved treatment rates. The use of synthetic materials for hernioplasty, especially for large and giant ventral hernias, is associated with the absence of wound tension, which avoids increased intra-abdominal pressure and the development of abdominal compartment syndrome (cardiopulmonary disorders, intestinal paresis, relapses, etc.)[1,2 ,3].

Introduction

The use of synthetic prostheses in the surgical treatment of postoperative ventral hernias has significantly reduced the rate of relapses, but the reaction to implantation significantly increases the number of postoperative complications. Today, polypropylene occupies a leading position as a material for the manufacture of hernia prostheses. However, the implantation of some endoprostheses is accompanied by a pronounced inflammatory reaction with a predominance of exudation, the formation of seromas and suppuration of the postoperative wound.

The article analyzes the frequency of local complications when using non-steroidal anti-inflammatory drugs (NSAIDs) and antihistamines in the postoperative period against the background of antibacterial and infusion therapy, in order to prevent possible local complications.

Research Materials

In the Bukhara branch of the Russian Research Center for Emergency Medicine in 2008-2009, 35 patients with ventral incisional hernias were operated on, of which 4 (11.4%) were men and

31 (88.6%) were women, with an average age of 52 years. Of the concomitant diseases, 15 (42.8%) patients had hypertension stage I-II, 23 patients (65.7%, only female patients) had obesity II - III degree, of which 3 patients had diabetes mellitus II type. Postoperative hernias formed after operations on the organs of the hepatobiliary system - 25 (71.5%), operations on the kidneys - 2 (5.7%), after operations on the stomach and duodenum - 4 (11.4%) and after gynecological operations - 4 (11.4%) patients. Of these, 10 (28.6%) patients had recurrent hernias. Of the total number of patients operated on, 26 (74.2) had large postoperative ventral hernias. Of the total number of patients, 9 (25.8%) had giant postoperative ventral hernias. For the purpose of plastic surgery, synthetic materials from the company Lintex “Esfil” were used. The mesh was implanted in the supraponeurotic “ onlay ” position.

The patients were divided into 2 groups, comparable by gender and age. Group I – 15 (42.8%) patients received preventive antibiotic therapy 30 minutes before surgery and for 4-5 days. Group II - 20 (57.2%) along with antibacterial therapy, in the postoperative period from the first day received non-steroidal drugs (diclogen 3.0 x 1 time / m) and antihistamines (suprastin, tavegil 1.0 x 1.0 times / m) within 4-5 days

Research Results

Surgery was performed according to standard techniques. Briefly about the technique: An old postoperative scar was excised using a bordering incision. In the presence of a large hernial orifice, after isolating the hernial sac and mobilizing the skin-subcutaneous layer from the aponeurosis, a synthetic implant was sewn over the sac. Most often, postoperative hernias are surrounded by scars, large in size and multi-chambered in structure. In such cases, the hernial sac was opened, and the adhesions between the walls of the sac and the intestinal loops were separated. In case of strong tension of local tissues, plastic surgery was performed by suturing the implant along the edges of the hernial orifice with additional fixation of the implant to the aponeurosis, in order to relieve the load on the first row of sutures. In all cases, monofilament non-absorbable synthetic sutures were used. The postoperative wound was drained according to Redon. The drainage was placed along the entire length of the wound, along the edges of the implant and brought out in the lower corner. To prevent the drainage from moving to the center of the wound, 2 sutures were placed on each side between the subcutaneous tissue and the implant.

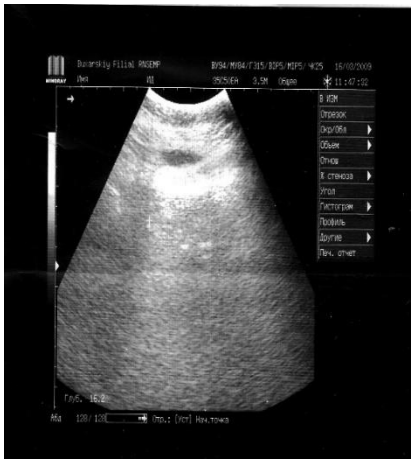

Fig.1. Implant seroma.

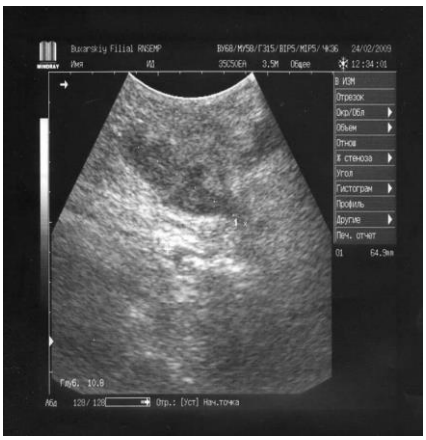

Fig.2. Suppuration of the implant.

The most common local complications include prolonged exudation from the wound, seroma, postoperative wound infiltration, wound suppuration and implant cysts.

Frequency of development of local postoperative complications, abs. (%)

Plastic	infiltrate wounds	seroma	suppuration	cyst	long-term exudation
Group I , n=15	5 (33.3)	2 (13.3)	2(13.3)	1(6.7)	3(20)
II group, n= 20	-	3(15)	-	-	1(5)

As can be seen from the table, the lowest percentage of local complications was observed in patients of the second group (main). In total, there were 3 (15%) seromas in patients suffering from an insulin-dependent form of diabetes mellitus, with II - III degree obesity, seroma was observed and in 1 patient there was prolonged exudation, which were eliminated and stopped on their own.

In patients of group I (control), the presence of local complications was more than 2 times greater than in the second group.

Thus, the scheme we developed for the use of NSAIDs and antihistamines against the background of antibacterial and infusion therapy made it possible to reduce the number of local complications after allohernioplasty in patients with ventral hernias.

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