Asian Pacific Journal of Environment and Cancer
Vol 4 No S1 (2021): Global Challenges and Population's Health International Conference, 19-20 Vov. 2021, Nukus, Uzbekistan, 13-14
Original Research

Immediate Results of Surgical Treatment of Patients with Strangulated of Ventral Hernia of the Anterior Abdominal Wall

Kh. Jafarov Karakalpakstan Medical Institute, Uzbekistan.
I. Melnik Tashkent Pediatric Medical Institute, Uzbekistan

The article presents results of treatment of 116 patients with strangulated incisional hernias of the anterior abdominal wall. It has been shown that the mandatory treatment algorithm for this category of patients should include monitoring of intra-abdominal pressure with timely correction of the manifestations of the “abdominal compartment syndrome”. The incidence of postoperative complications was -21%, postoperative mortality -9.5%.

Introduction

Relevance

Strangulated incisional hernias of the anterior abdominal wall are one of the most common diseases of emergency abdominal surgery. Their frequency ranges from 2.2 to 10% of the total number of strangulated hernias [1,2]. The statistics of the leading research and medical institutions of the far and near abroad indicate that, despite the success achieved, the results of surgical treatment of patients with restrained hernias of the abdominal wall cannot be considered satisfactory. Thus, high numbers of postoperative complications remain, reaching up to 50%. Postoperative mortality ranges from 2.6 to 11.0%. The cause of death is most often peritonitis [3-7].

Purpose of the study

To study the immediate results of treatment of patients with strangulated incisional hernias of the anterior abdominal wall.

Materials and Methods

The results of treatment of 116 patients with strangulated ventral hernias were analyzed. A history of all patients underwent various surgical interventions on the abdominal organs by means of upper-middle-lower- median laparotomies: operations on the liver, biliary tract – in 31, on the stomach – in 25, on the pancreas – in 17, on a thin – in 15, colon – in 12, gynecological operations – in 10, and others – in 6 patients. Women was 42 and men 74. The patients’ age is from 23 to 79 years. According to the classification of K.D. Toskin and V.V. Zhebrovsky (1990): small hernias were present in 10, medium - in 26, extensive - in 48 and giant - in 32 patients. 82 (71%) of patients had various comorbidities: hypertension – in 33, ischemic heart disease – in 14, diabetes mellitus – in 13, bronchial asthma, pulmonary emphysema, pneumosclerosis – in 10, varicose veins of the lower extremities – in 6, history of acute cerebrovascular accident – in 4, others – in 2 patients. Obesity of varying severity was present in 54 (47%) patients. Hernia history was: up to 1 year – in 11; from 1 to 5 years – in 29; from 5 to 10 years old – in 34; from 10 to 15 years old – in 38; more than 15 years - in 4 patients. Duration of infringement before going to the hospital: up to 2 hours – in 32; from 2 to 6 hours – in 26; from 6 to 12 hours – in 24; from 12 to 24 hours - in 20; more than 24 hours – in

14 patients.

Results and Discussion

All patients underwent the following urgent examination: general blood and urine analysis, determination of blood group and Rh factor, study of coagulogram with determination of blood coagulation time, survey fluoroscopy of the chest and abdominal cavity, ECG recording, MSCT of the abdominal cavity (with extensive and giant hernias). According to the indications, a biochemical blood test was additionally determined (sugar, urea, creatinine, bilirubin, total protein, AST, ALT), an ultrasound of the hernial formation was performed, and a therapist was examined.

Surgical intervention in all cases was performed under general anesthesia. Intraoperatively, the restrained organ was: a greater omentum – in 22; loops of the small – in 49 and large intestine – in 14; the presence of several strangulated organs in the hernial sac – in 31 cases. Resection of the nonviable part of the greater omentum was performed in 18 cases, resection of the small intestine – in 16, resection of the large intestine - in 4 cases. In 7 cases, there was a phlegmon of the hernial sac. In other cases – in 78, the restrained organs were recognized as viable.

When choosing the method of plasty of the anterior abdominal wall, mainly for small and medium hernias, preference was given to the simplest: plasty according to Sapezhko – in 31; Championer – in 5 cases. Alloplasty with a polypropylene mesh – in 34 cases was used in patients with multiple recurrent multicameral hernias, the impossibility of suturing the defect of the anterior abdominal wall with local tissues, and a high likelihood of developing “compartmentmet syndrome” in the absence of infection of the abdominal cavity. Suturing of the aponeurosis of the anterior abdominal wall without end-to-end plastic surgery – in 38 cases was performed in patients with the impossibility of using alloplasty. In cases of the presence of a large anterior abdominal wall defect, infection of the anterior abdominal wall or abdominal cavity after the elimination of infringement, resection of necrotic organs, sanitation of the abdominal cavity if it was impossible to suture the aponeurosis defect “edge to edge”, the hernial sac and skin were sutured without suturing the aponeurosis – in 8 patients.

In patients with pronounced subcutaneous fat, drainage according to Redon was required. In the postoperative period, the patients were in the intensive care unit. One of the main tasks of treatment in the early postoperative period was the control of intra-abdominal pressure. It was measured by assessing the pressure in the bladder through a Folley catheter connected to a hydro-manometer - Waldman apparatus. The degree of increase in intra- abdominal pressure was assessed according to the protocol of the World Congress on SAH (Australia 2004): first degree - pressure in the abdominal cavity 10-15 mm Hg; the second - 16-20 mm Hg; the third - 21-25 mm Hg; the fourth - more than 25 mm Hg. In accordance with it, 34 (29%) patients had various degrees of intra-abdominal hypertension: first - 3%; the second - 10 %; third-15 %; fourth-6%. In order to relieve the phenomena of intra-abdominal hypertension, the patients underwent: respiratory support by prolonged artificial ventilation of the lungs with an increase in positive end-expiratory pressure, nasogastrointestinal probe decompression, correction of the syndrome of enteric insufficiency, epidural analgesia.

Various postoperative complications were observed in 24 (21%) patients: anastomoses failure 2 (8.3%), pneumonia 7 (29.2%); complications from the postoperative wound (infiltrates, seromas, hematomas, suppuration) in 15 (62.5%). Relaparotomy was performed in 5 (4.3%) patients: in 2 cases, the cause of relaparotomy was peritonitis against the background of anastomoses incompetence, in 1 case - peritonitis against the background of incompetence of the sutured deserosed area of the small intestine, in 1 case - adhesive intestinal obstruction, and in 1 case - eventration against the background of suppuration of the wound. Postoperative mortality was in 11 (9.5%) patients. The causes of death were: severe abdominal sepsis against the background of peritonitis caused by intra-abdominal complications 4 (36.3%); severe forms of pneumonia 3

(27.3%); pulmonary embolism 2 (18.2%); myocardial infarction 1 (9.1%); repeated acute cerebrovascular accident in 1 (9.1%) patient.

In conclusions, the treatment of patients with incarcerated incisional hernias of the anterior abdominal wall is one of the most pressing issues of emergency abdominal surgery. The presence in patients of adhesions in the abdominal cavity, intestinal obstruction or peritonitis on the one hand and the need for plastic closure of the anterior abdominal defect with maximum measures to prevent intra-abdominal hypertension is a difficult task. The emergence of the syndrome of “mutual burdening”, severe postoperative intestinal paresis and concomitant pathology significantly worsen the prognosis. High mortality rates (9.5%), the incidence of postoperative complications (21%) over a number of years do not have a significant tendency to decrease, which requires further work to improve the results of treatment of this category of patients.

References

References

1. Antadze A.A. Surgery of postoperative ventral hernias. *Bulletin of herniology.* 2006; 2:26-28.
2. Alexandre J. Recent advances in incisional hernia treatment. *J. Alexandre, K. Aouad, J. Bethoux // Hernia.* 2000;1-2.
3. Jafarov Kh.M, Akhmedov A.I. Tursumetov A.A.Features Of Allohernioplasty For Postoperative Ventral Hernias In The On-Lay Position Under Conditions Of Infections In The Experiment. *European Journal of Molecular & Clinical Medicine.* 2020; 7(3):3897-3905.
4. Jafarov Kh.M, Tursumetov A.A, Akhmedov A.I. Prevention of Postoperative Wound Complications in Rappeded Abdominal Hernia. *Annals of R.S.C.B., ISSN: 1583-6258.* 2021; 25(1):6473-6484.
5. Kalish Yu.I, Ametov L.Z, Shoyusupov A.R, Yigitaliev S.Kh. Systemic approach to prosthetic repair for ventral hernias. *J. Surgery in Uzbekistan.* 2014; 1:85-91.
6. Larin V.V S.N, Styazhkina S.N. Analysis of the postoperative period in patients with muscular-aponeurotic and tension-free hernioplasty. *International Journal of Experimental Education.* 2011; 5:25.
7. Zorkin AA. Treatment of strangulated hernias of the abdominal wall. *Surgeon: monthly scientific and practical journal.* 2005; 8:6-8.