

thermoplastic gastric probe and installed at the level of the perforation. Immediately after installation, the system was connected to a vacuum aspirator with a pressure of 100 - 125 mm Hg. Replacement of the system was carried out every 3-13 days. To fully close the insolvency, it took from 1 to 7 procedures. The decision to complete the therapy was carried out based on the results of endoscopic and X-ray examination in the absence of data for the presence of fistula.

Results: Totally 57 procedures were performed: the number of replacements - 4 (1-7), the interval between procedures - 6 days (3-13 days), the duration of treatment - 13 days (1-66 days). The success rate was 75%. There were three lethal outcomes, including two due to progressive cardiovascular failure with positive dynamics of local treatment. One patient died of the multiple organ failure.

Conclusions: Endoscopic vacuum therapy is considered to be valuable and cost-effective method of treatment of anastomotic leaks and perforations of the upper GI tract.

Keywords: Anastomotic leaks; Endoscopic vacuum therapy

NEW METHODOLOGY ENDOSCOPIC TREATMENT OF DIVERTICULE OF THE ZENKER



SHISHIN K¹, PAVLOV I¹, NEDOLUZHKO I¹, SHUMKINA L¹

¹A. S. Loginov Moscow Clinical Scientific and Practical Centre, Moscow, Russia

Background: To evaluate the effectiveness of endoscopic cryo-pharyngo-esophago-myotomy using a combination technique in the treatment of patients with Zenker's diverticulum.

Methods and materials: The initial incision of the mucous membrane and the subsequent dissection of the muscles takes place in the middle of the cricopharyngeal fold. After the complete intersection of the cricopharyngeal muscle, the actual tunneling stage of the operation is performed, the purpose of which is to perform an upper esophageal myotomy. After performing the myotomy of the required length, the apparatus is removed from the tunnel and the mucous membrane is subsequently dissected. First, the mucosa from the diverticulum to its bottom is cut in the longitudinal direction. The second stage on the same length dissects the mucosa of the esophagus. You should strive to dissect the mucous strictly in one direction without bias. Subsequently, this is the key to successful application of clips and hermetic information of the mucous membranes. In the period from June to November 2018 in the MKNC A.S. Loginov on the Zenker's diverticulum 18 surgical interventions were performed using a new combined technique. The average age of patients was 62 (from 35 to 80 years). The time of surgical intervention averaged 40 minutes.

Results: The peculiarity of the patients who underwent surgery using the new combined method was the almost complete absence of the residual cavity of the diverticulum during the X-ray control examination.

Conclusions: Combined endoscopic surgery for Zenker's diverticulum allows to successfully expand the scope of surgical intervention by performing an extended myotomy and dissection of the mucous membrane of the septum. This allows you to create conditions for the prevention of recurrence of the disease, thereby providing the best result of treatment.

Keywords: Diverticulum Zenker; Endoscopic cryo-pharyngo-esophago-myotomy

PERORAL ENDOSCOPIC MYOTOMY IN THE TREATMENT OF ACHALASIA OF THE ESOPHAGUS



SHISHIN K¹, NEDOLUZHKO I¹, PAVLOV I¹, SHUMKINA L¹

¹A. S. Loginov Moscow Clinical Scientific and Practical Centre, Moscow, Russia

Background: Peroral endoscopic myotomy (POEM) is a promising new method of radical treatment of neuromuscular diseases of the esophagus, estimated effectiveness of which is comparable to traditional surgery.

Aim: To compare the efficacy of peroral endoscopic myotomy and laparoscopic cardiomyotomy in the treatment of neuromuscular diseases of the esophagus.

Methods and materials: The study included two groups of patients with neuromuscular diseases of the esophagus. The first group included patients who underwent peroral endoscopic myotomy. The second group included patients who underwent laparoscopic cardiomyotomy. In the period from July 2014 to may 2016 made 39 peroral endoscopic myotomy and 42 laparoscopic cardiomyotomy. During this period we analyzed the results of 16 patients of the first group and 15 patients of the second group. The average age of patients is 47 years (from 20 to 71 years). The perioperative protocol of examination included endoscopy, X-ray examination of the esophagus, the manometry of the esophagus, evaluation of the severity of dysphagia on a scale Eckardt before and after 3 and 12 months after surgery. Statistical differences were not observed. The average score on a scale Eckardt before surgery was 6.6.

Results: Protocol postoperative examination was performed in 31 patients. According to manometry of the esophagus normal values in both groups were registered. The average score on a scale Eckardt – of 0.9 (0-2). In the first group in five observations endoscopic signs of insufficiency of the cardia were detected at endoscopy, clinically pronounced in three patients. In the second group – in two cases, in one – with clinical manifestations. Symptoms relieved by taking inhibitor of proton pump.

Conclusions: When comparing the results of laparoscopic and POEM of cardiomyotomy statistically significant differences were revealed. Thus, peroral endoscopic myotomy may be an analogue of laparoscopic cardiomyotomy.

Keywords: Achalasia of the esophagus; Peroral endoscopic myotomy; Laparoscopic myotomy

HERNII OMBILICALE DE TENSIUNE CU ASCITĂ REZOLVATE PRIN FENESTRARE PERITONEALĂ ANTERIOARĂ



SÎNGEREANU A¹, BESCHIERU E^{1,2}, REVENCU S^{1,2}, STRELȚOV L^{1,2}, BERLIBA S², BALAN S^{1,2}, MALOGHIN V¹

¹Spitalul „Sf. Arhanghel Mihail”, ²Catedra de chirurgie nr.1 „Nicolae Anestiadi”, Universitatea de Stat de Medicină și Farmacie „Nicolae Testemițanu”, Chișinău, Republica Moldova

Introducere: Cirozele hepatice cu ascită progresivă sunt cauza etiologică preponderentă în apariția herniilor ombilicale de tensiune cu sindrom de compartiment abdominal.

Material și metode: Studiul cuprinde 47 pacienți operați în perioada anilor 2008–2018. Repartizarea pe sex: femei (32), bărbați (15). Vârsta medie a fost $52,2 \pm 9,26$ ani. Etiologia cirozelor hepatice au fost hepatitele virale (HV): HVC–12(25,53%), HVB–9(19,15%), HVB+D–10(21,28%), HVB+C–5(10,64%), hepatită toxică–11(23,4%). Pacienții operați prin herniotomie cu excizie de ombilic și plastie utilizând grea din polipropilenă prin metoda *TENSION FREE* de substituție și fenestrarea cavității peritoneale în spațiul subcutanat anterior. Cavitatea abdominală drenată cu tub din silicon nr. 14. Postoperator la 4-6 zi s-a utilizat metoda de marcare pigmentară cu albastru de metilen a lichidului ascitic.

Rezultate: În perioada postoperatorie precoce prin marcarea lichidului ascitic constatăm pigmentarea țesutului subcutanat al peretelui abdominal, care ulterior s-a eliminat cu urina. S-au prezentat la control programat repetat la 1 lună–28(59,57%) pacienți, la 3 luni–21(44,68%) pacienți, la 6 luni–14(29,78%) pacienți cu ascită abdominală cantitate moderată confirmată imagistic fără sindrom de compartiment abdominal marcat.

Concluzii: Migrarea lichidului abdominal în spațiul subcutanat prin fenestrare ombilicală contribuie la rezorbția lui în vena cavă inferioară ocolind sistemul portal, astfel micșorând hipertensiunea portală și volumul ascitei.

Cuvinte cheie: Ascită; Ciroză hepatică; Fenestrare peritoneală; Hernie ombilicală

TENSION UMBILICAL HERNIAS WITH ASCITIS RESOLVED BY PREPERITONEAL FENESTRATION

Background: Hepatic cirrhosis with progressive ascites is the prevalent etiological cause in the occurrence of the tension umbilical hernias with abdominal compartment syndrome.

Methods and materials: The study includes 47 patients operated during 2008-2018. Distribution by sex: women (32), men (15). The mean age was 52.2 ± 9.26 . The etiology of hepatic cirrhosis was viral hepatitis (HV): HVC–12(25.53%), HVB–9 (19.15%), HVB+D–10(21.28%), HVB+C–5(10.64%), toxic hepatitis–11(23.4%). Patients operated by umbilical excision hernioplasty using the polypropylene graft by the *TENSION FREE* method and the fenestration of the peritoneal cavity in the anterior subcutaneous space. Abdominal drainage cavity with silicone tube No. 14. Postoperatively, 4-6 days, the pigmentation method with blue methylene of the ascitic fluid was used.

Results: In the early postoperative period, by marking the ascitic fluid, we found pigmentation of the subcutaneous tissue of the abdominal wall, which was subsequently eliminated with urine. Coming for a repeated control in 1 month–28(59.57%) patients, 3 months–21(44.68%) patients, 6 months–14(29.78%) patients with moderate abdominal ascites confirmed by ultrasound exam without severe abdominal compartment syndrome.

Conclusion: Migration of the abdominal fluid into the subcutaneous space by umbilical fenestration contributes to its resorption in the inferior cava vein bypassing the portal system, as well as reducing the portal hypertension and the volume of ascites.

Keywords: Ascites; Liver cirrhosis; Peritoneal fenestration; Umbilical hernia

METODE ALTERNATIVE ÎN TRATAMENTUL BOLII DE REFLUX GASTROESOFAGIAN



ȘIPITCO NATALIA¹, UNGUREANU S¹, VIDIBORSCHII V², FOSA DOINA¹

¹IMSP Spitalul Clinic Republican, Catedra Chirurgie nr.4, ²Inginer Medical, Laborator Labromed, Chișinău, Republica Moldova

Introducere: Boala de reflux gastroesofagian (BRGE) este plasată pe prima poziție printre afecțiunile tubului digestiv superior. Cauza principală BRGE este pierderea integrității barierei antireflux gastroesofagian. Restabilirea acestui mecanism este posibilă în prezent prin intervenții antireflux. În ultimii 10 ani au apărut tehnici noi, cum ar fi implantarea a dispozitivului LINX, EndoStim, electrostimularea sfîcterului esofagian inferior (SEI), etc.

Material și metode: În clinica chirurgie nr.4, al SCR pe parcursul a 4 ani (2015-2018) a fost realizat un proiect clinico-experimental, utilizând electrostimularea a SEI. La prima etapă electrostimularea SEI a fost evaluată la 15 pacienți, aplicând generatorul de impulsuri externe. Acești pacienți au suportat o intervenție laparoscopică antireflux cu inserarea a 2 electrozi temporari la SEI. La etapa a doua a fost creat prototipul experimental al unui microstimulator implantat, încărcabil prin transfer de energie fără fir. La etapa a treia s-a efectuat testarea acestuia în centrul de chirurgie experimentală "Pius Brânzeu", Timișoara, pe animale de laborator (porci).

Rezultate și concluzii: S-a demonstrat eficiența elocventă în sporirea tonicității SEI. Pentru a compensa efectul de ecranare al țesuturilor biologice, este necesară modificarea suplimentară a antenei transmițătorului Bluetooth. Pentru o evaluare mai aprofundată a eficacității diferitor regimuri de electrostimulare, sunt necesare studii clinice suplimentare.

Cuvinte cheie: BRGE; Hernia hiatală; Electrostimularea; Funduplicatura

ALTERNATIVE METHODS IN TREATMENT OF GASTROESOPHAGEAL REFLUX DISEASE

Background: Gastroesophageal reflux disease (GERD) is placed on the first position among the upper digestive tract pathologies. The basic cause of GERD is a loss of integrity of the gastroesophageal barrier. Restoration of this situation is currently possible by antireflux interventions. Over the past 10 years, new techniques, such as implantation of LINX, EndoStim, electrical stimulation of the lower esophageal sphincter (LES), have emerged.

Methods and materials: In the Department of surgery no 4, during the 4 years (2015-2018), one clinical-experimental project of LES electrical stimulation has been achieved. At the first stage, the electrical stimulation of the LES using external pulse generator was assessed in 15 patients. These patients underwent antireflux intervention with additional insertion of 2 temporary electrodes on the LES. At the second stage was created the experimental device of a re-insertable microstimulator by wireless energy transfer. At the