

ABDOMINAL WALL FUNCTION AFTER MINIINVASIVE INCISIONAL HERNIA REPAIR

¹Valerii Kryshen, ¹Andrii Kudriavtsev, ¹Volodymyr Muschinin, ¹Volodymyr Dubchenko

¹DMA, Ukraine

Key words: incisional hernia

Aim of study: to compare abdominal wall function at patients after incisional hernia repair with laparoscopic and open alloplastics using electromyography diagnostics method.

Materials and methods :Patients with diagnosis of incisional hernia participated in study of total number of 60 and was divided into two groups. First group consisted from 30 patients, aged from 24 to 72, 18 men and 12 women, with hernias from 5 to 17 cm. These patients underwent laparoscopic hernioplasty by authors method. Second group was consisting from 30 patients with 6 to 17 cm , aged 26-76, 20 men, 10 women, were operated open. The abdominal wall muscles tonus and voluntary activity four months after surgery were studied. We inspected a total potential of the motor units using skin placed electrodes which was located in similar areas. The study was conducted in time of 5 seconds. The analysis of the amplitude, frequency and spectral characteristics was performed.

Results and discussion : For results analysis was used Fourier transform. The better was subjective operation results, the more similar was characteristics of post-operation and healthy myograms. Medium amplitude (A med) of muscular contractions was higher after laparoscopic surgery (351 ± 26 mV) than after open (299 ± 24 mV). Registered myogram after laparoscopic surgery was more regular and similar to the ones of unimpacted tissues as well. Correlation of amplitude to effective spectral bandwidth (A med/ Δf) at affected zone was $1,1 \pm 0,2$ after laparoscopy; $0,9 \pm 0,2$ after open plastic.

Conclusion: Usage of laparoscopic hernioplasty in incisional hernia repair induced the more physiological neuromuscular activity of operated areas. The method proposed can improve the quality of patients life.

Contact person: Valerii Kryshen

Email: kryshenvalery@3g.ua

LARGE INGUINAL HERNIA TAPP REPAIR DISTANT RESULTS

¹Andrii Kudriavtsev, ¹Valerii Kryshen, ¹Volodymyr Muschinin, ¹Volodymyr Dubchenko

¹DMA, Ukraine

Key words: hernia

Aim of study: to evaluate distant results of laparoscopic treatment at patients with large and gigantic inguinal hernia.

Materials and methods: 20 patient operated using author's modified TAPP method with one-sided hernia. According to Nyhus there were 3a, 3b and 4 type hernias, according to Gilbert-Rutkow-Robbins there

were 3,4, and 5 type hernias. Size of hernia sac was in average $13,1 \pm 1,2$ cm. Meshes of 10x15 cm size were used. Control group consisted of 20 patients with same pathology and operated by unmodified methodic.

Results and discussion: The occurrence of chronic pain was observed in 5% of patients in the first group and 10% in the control one. Using SF-36 scale, results after plastics were better in first group. Usage of sonographic examination gave us next: the size of the fibrous layer $1,9 \pm 0,2$ cm in the first group and $2,1 \pm 0,2$ cm in the second, vascularization index was $3,7 \pm 0,1$ and $4,1 \pm 0,2$, the index of blood flow was $25,2 \pm 0,4$ and $21,7 \pm 0,4$, vascularization flow index was $7,0 \pm 0,5$ and $5,12 \pm 0,4$, coefficient of variation was 22% and 16% correspondingly. So structure of tissues and level of perfusion was closer to unimpacted at patients in first group. Using electromyographic examination in 3 months after surgery gave us average amplitude of contractions was 417 ± 26 mV in first group, 356 ± 25 mV in second. The average correlation of the amplitude to the effective width of the spectrum was $1,2 \pm 0,2$ and $1,0 \pm 0,2$, the coefficient of variation - 31% and 27%, indicating better functional status of muscles in first group.

Conclusion: usage of modified laparoscopic hernioplasty in cases of large inguinal hernia can improve treatment results. By using proposed method level of distant complications decreased, quality of patient's life increased.

Contact person: Valerii Kryshen
Email: kryshenvalery@3g.ua

ENDOSCOPIC STENTING IN UPPER GI SURGERY

¹Tamaz Sulikashvili, ¹Giorgi Chkhaidze, ¹Giorgi Giorgobiani

¹Aversi Clininc, Georgia

Key words: stenting esophagus, stomach, duodenum

Materials and methods: Esophageal, gastric and duodenal stenting was performed in 40 patients from 2009 in Aversi clinic. In 26 cases stenting procedure was utilized due to esophageal malignant obstruction; in 2 cases – for longitudinal caustic strictures of the esophagus; in 11 – esophageal fistulas and esophagogastric anastomotic leak. In 36 cases fully covered stents were placed in the esophagus and stomach. In 1 case partially covered and 1 uncovered stents were placed in the duodenum. In 17 cases carcinoma was located in the middle and distal portions of the esophagus and in 9 cases esophageal malignancies involved proximal stomach as well. For the latter stents with special antireflux valves were used. There were no complications detected during stent placement. In 1 case the stent migrated into the stomach. The problem was fixed on the other day by the special stent extractor device. All fistulas were closed in 2-12 week period.

Conclusion: Esophageal, gastric and duodenal stenting by covered stents should be considered as an effective minimally invasive method of choice in the treatment of malignant and benign obstructions of upper GI tract and for effective closure of fistulas and anastomotic leaks.

Contact person: Giorgi Giorgobiani
Email: giorgigiorgobiani1969@gmail.com