

ABDOMINAL WALL FUNCTION AFTER MINIINVASIVE INCISIONAL HERNIA REPAIR

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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.

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LARGE INGUINAL HERNIA TAPP REPAIR DISTANT RESULTS

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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