MEDITAMENTAL THERAPY IN THE TREATMENT OF POSTOPERATIVE WOUNDS PERINEUM AND ANAL CANAL

Titov A.Yu., Nekhriztova S.V., Veselov A.V.
State Scientific Center of Coloproctology, Moscow, Russia

AIM. Postoperative wounds of the anal canal and perineum, even small in volume, heal long enough. Along with the local treatment of such wounds in some cases, it is effective to prescribe medications for oral administration, in particular venotonic drugs. In the State Scientific Center of Coloproctology from November 2016 to March 2017, a study was conducted to evaluate the efficacy of Venarus for the treatment of postoperative wounds perineum and anal canal

METHODS. The study included 313 patients diagnosed with hemorrhoids. In some patients, along with hemorrhoids, there were concomitant diseases – a chronic anal fissure or fistulas of the rectum. The main group consisted of 59 people who were treated with Venarus, and 54 people in the control group. The evaluation methods included clinical examination, proctometry, cystological examination of print smears, quality of life of patients on the QoL SF-36 scale before surgery, on discharge and on the 28th day after surgery. In each group, patients were included, homogeneous in terms of key indicators.

RESULTS. Patients in the main group needed significantly fewer non-narcotic analgesics after surgery. The pain level in the first 4 days of the patients of the main group against the background of the ongoing therapy with the Venarus drug was significantly lower in comparison with patients receiving only traditional local treatment. The level of reliability was directly dependent on the stage of hemorrhoids – the more the stage of hemorrhoids was, the higher the level of reliability. In patients in the control group, hypertermia was significantly longer than in the main group – 1.61 ± 0.11 and 1.22 ± 0.10, respectively (p<0.0008). In clinical evaluation of postoperative period, minimal edema in the postoperative wound area or infiltrate after sclerotherapy of internal hemorrhoids was preserved in 81.6 % of patients even on day 28, whereas by this time in all 100 % of patients of the main group of edema in wound area was not observed. At the cystological examination, no significant inflammatory infiltration was registered in the patients of the main group already 15 days after the operation, whereas in 50 % of patients in the group only cystological signs of active inflammation (p=0.0001) remained in the group with only local treatment. On day 28, in 100 % of patients in the main group, no signs of inflammation were present, and in 74.1 % of the control group those were still signs of minimal inflammation (p<0.0001). Application of Venarus ultimately affected the quality of life patients – physical and mental, because a significant reduction in pain, as well as inflammatory wound reaction led to a faster recovery. Especially the differences in the quality of life were manifested on day 28 after the operation (p<0.001).

[Key words: medical treatment of postoperative wounds perineum and anal canal, venotonizing drug, methods for assessing the course of the wound process]

SHORT-TERM RESULTS OF SURGICAL TREATMENT FOR SYMPTOMATIC LIVER MALIGNANCIES OF RECTAL CANCER

State Scientific Centre of Coloproctology named after A.N. Ryzhikh, Moscow, Russia Russian Medical Academy of Continuous Professional Education, Moscow, Russia

BACKGROUND. Staged surgery in cases of rectal liver metastases is preferred method in routine clinical practice. Another choice is simultaneous operations. Our prospective study compares short-term outcomes of patients with synchronous rectal liver metastases treated by simultaneous or staged surgery.

METHODS. 108 suitable patients were treated in State Scientific Centre of Coloproctology named after A.N. Ryzhikh, Moscow, Russia between January 2013 and February 2017. Simultaneous rectal and hepatic resections were performed in 78 patients; 30 patients underwent delayed hepatectomy. Short-term outcomes were analyzed.

RESULTS. Major liver resections were rarely performed in group of simultaneous operations: 22 % vs 56 % (p<0.0001). Anterior resection performed more often in simultaneous group 48/78 (62 %) vs 12/40 (30 %), respectively. There was no difference in mortality and complications rates between major liver resections in both groups: 0 vs 3 % and 57 % vs 28 %, respectively. Age ≤61 y.o. (OR=13; 95 % CI=1,3-120), size of the largest metastasis in the liver >2.1 cm (OR=6.6; 95 % CI=1,8-23), staged surgery (OR=6.9; 95 % CI=1,5-31) were identified as independent risk factors of complications.

CONCLUSION. Simultaneous operations, requiring economical resections are indicated in cases of synchronous metastases of rectal cancer in the liver. Simultaneous major R0 resections of the liver (till 70 % of liver parenchyma) done in specialized centers do not lead to increased complications, mortality rates and inpatient days.

[Key words: synchronous colorectal cancer liver metastases, liver resections, rectal cancer, simultaneous resections]

ACTUAL QUESTIONS OF PREPARATION TO VIDEOCAPSULE ENDOSCOPY

Galyaev A.V., Lukatov A.A., Askhipova O.V., Mtrvalashvili D.A., Veselov V.V.
State Scientific Center of Coloproctology, Moscow, Russia

AIM to show on the results of our study the influence of the quality of preparation for video capsule endoscopy (VCE) on the accuracy of diagnosis of diseases of the small and large intestine.

MATERIALS AND METHOD. During the period from September 2014 to December 2016, a video capsule study was performed on 100 patients of treatment at the State Scientific Center of Coloproctology. Final data processing was carried out based on the results of a survey of 96 patients (52 men and 44 women aged 18 to 78 years). To adequately prepare patients for the study, we used a specific scheme with the use of a «split-dose» of intestinal cleansers based on polyethylene glycol and stimulation solutions. The quality of preparation of the small and / or large intestine for the study was assessed according to the scale of Lichten B.J.A., Rev D.K.

RESULTS. The completeness of the study and the full examination (the ability to visualize all the sections of the small and / or large intestine) are important criteria for conducting the VCE. In our study, a complete study of the small and large intestine was performed in 87 (91 %) patients, and a full study was performed in 86 (90 %) of 96 patients. In the study of the small and large intestine using small intestine or large intestinal videocapsules, in 87 (91 %) patients the intestinal preparation was rated «good» or «excellent».

CONCLUSION. The experience of our study showed that in order to obtain reliable and informative results, careful follow-up of the methodology of preparation for the study should be done.

[Key words: videocapsule endoscopy, preparation, small intestinal capsule, colonic capsule]

CONSERVATIVE TREATMENT OF HEMORRHOIDS. AN ALTERNATIVE TO SURGICAL METHODS OR COMPONENTS? CHORUS PROGRAM RESULTS

Zaguradsky E.A.1, Bogomazov A.M.2, Golovko E.B.3
1 Medical Center «ON-CLINIC», Moscow, Russia
2 Research Institute of Emergency and Clinical Surgery, Moscow, Russia
3 RAMS, Moscow, Russia

AIM was to evaluate the effectiveness of conservative treatment of hemorrhoids, which is considered as the inferior alternative to surgical methods in treatment. The aim of the study was to assess the effectiveness of the new conservative approach in the treatment of hemorrhoids.

MATERIALS AND METHODS. 18 patients with CRLM underwent CEUS using the contrast agent Sonovue (Bracco, Italy). The patients were divided into two groups: the first group — 10 (55%) patients before chemotherapy; the second group — 8 (45%) patients after chemotherapy and stable disease. The enhancement patterns of liver metastases were evaluated during the vascular phases: arterial, venous, and delayed.

RESULTS. The enhancement patterns of liver metastases on CEUS were categorized as diffuse homogeneous enhancement (20% in the first group; such enhancement wasn’t observed in the second group), rim-like hyper enhancement (70% of the patients from the first group; 75% of patients from the second group) and is enhancement, such as intact liver parenchyma (25% of the patients from the second group). There were detected additional metastases in 4 (22.2%) of patients 18 (100%) in the delayed phase. These were significant findings in time of the beginning the vascular phases between patients from the first and second groups. The latest beginning of the wash-out stage was observed in liver metastases in patients from the second group (25.8 sec. from the injection of contrast). The earliest beginning of the washout stage was observed in liver metastases in patients from the first group (42.4 sec. from the injection of contrast). CONCLUSION. CEUS improves visualization of CRLM, in comparison with the grayscale B-mode. It is also possible to apply this technique in the assessment of chemotherapy in patients with CRLM, as there was a difference between the moments of the beginning wash-in and wash-out stages.

EARLY RECTAL CANCER: LOCAL EXCLUSION OR TOTAL MESORECTAL EXCISION? Semenov A.V., Savicheva E.S., Popov D.E., Vasiliev S.V. The 1st Pavlov State Medical University of St.-Petersburg, Russia City Center of Coloproctology, Saint-Petersburg, Russia AIM of this study was to improve treatment outcomes for early rectal cancer; to assess the accuracy of endorectal ultrasound (ERUS) in preoperative staging of early rectal cancer.

MATERIAL AND METHODS. A total of 42 patients of the main prospective group with early rectal cancer underwent transanal local exclusion (LE). In control retrospective group 39 patients underwent radical resection with total mesorectal excision (TME). Operation time, perioperative, hospital stay duration, long-term oncological results (overall and local recurrence-free survival, cancer-free survival, distant metastasis rate) were analyzed. Comparison of ERUS preoperative staging for prospective group and pathological staging was performed to identify the accuracy of ERUS.

RESULTS. Median follow-up for prospective group was 41 (from 10 to 60) months. In comparison with TME, LE was associated with fewer morbid (4.8% vs 17.9%, p=0.04). There was no hospital mortality in both groups. The accuracy of ERUS was 88.1% for Ti1 and 78.6% for T1. There was no significant statistical difference in 1-year and 3-year in oncological outcomes between groups (p>1.0). There was one local recurrence (2.6%) in 6 months after LE in a patient with pT1mi who had previously refused surgery. This patient underwent TME. There was no detected distant metastasis in both groups. The 3-year overall survival was 100% for LE and 97.4% for TME. The 3-year cancer-specific survival was 100% in both groups.

CONCLUSIONS. LE has advantages over TME in short-term results; long-term oncological results after LE are comparable with TME. ERUS has a good diagnostic effectiveness in preoperative staging of early rectal cancer.

RISK OF DEVELOPING ACTIVE TB IN IBD PATIENTS TREATED WITH ANTITNF Frolova K.S., Borisov S.E. Moscow Research and Clinical Center for TB Control, Moscow. Moscow Government Health Department, Moscow, Russia AIM: To develop an investigation complex for IBD patients with the anti-TNF therapy to decrease the risk of active TB. METHODS. In Moscow Research and Clinical Center for TB Control 454 patients with IBD were screened prior to initiation of anti-TNF treatment and 167 (36.8%) of them — during the anti-TNF therapy. Tuberclulin skin test (TST) and chest radiography were used for screening and evaluation of pulmonary adverse effects (every 6 months and additionally in cases of any respiratory signs).

RESULTS. Of 454 patients investigated during screening X-ray, chest radiography findings were detected in 29 (6.4%), which required additional investigation, among them in 14 patients, findings considered as residual TB lesions. In the other 15 patients, the radiographic findings caused by previous non-specific pulmonary infections. Positive TST implicates preventive antituberculosis therapy, which was provided 37 patients (before and under anti-TNF therapy). During provided to 167 patients the anti-TNF therapy, were developed pulmonary adverse effects: 10 incidences of active TB lung infection, 3 case of sarcoidosis, 1 case of fibrosing alveolitis, and two case of non-CONCLUSION. The patients with IBD, treated by anti-TNF therapy, have a risk of developing pulmonary complications, including TB. It is therefore highly important to carefully monitor the patients prior and during the anti-TNF therapy (every 6 months) for a timely detection of pulmonary conditions potentially associated with the treatment.

LOCALLY ADVANCED SIGMOID CANCER WITH CARCINOMATOSIS AND MULTIPAY RECURRENCES. 15 YEARS OF OBSERVATION
HYPERPLASIA OF INTERNAL ANAL SPHINCTER. CASE REPORT.
Achkasov S.I.1, Titov A.Y.1, Shakhmatov D.G.1, Saitulinova K.R.2, Mainovskaya O.A.1, Zarudnak I.V.1, Fomenko O.U.1
1 State Scientific Centre of Coloproctology, Moscow, Russia
2 Russian Medical Postgraduate Education Academy, Moscow, Russia
It is possible to find some reports on isolated thickening of the internal anal sphincter and the causes of its development in the literature. However, no clear diagnostic program and surgical correction description has been detected for this condition. This clinical observation demonstrates a rare case of the hyperplasia of the internal sphincter syndrome with the obliteration of the anal canal, and also successful rehabilitation of the patient during the multi-stage surgical treatment.

MALIGANT TUMORS OF THE ENDOMETRIUM, BRAIN, THYROID IN THE FAMILY WITH ADENOMATOUS POLYPOSIS
Sshevilin Yu.A.1, Potapov A.A.2, Kuzminov A.M.1, Vyshegorodtsev D.V.1, Mursudze N.A.2, Chichevatov D.A.3, Ponosareva E.E.3, Maynovskaya O.A.1, Shubin V.P.1, Tsukanov A.S.1
1 State Scientific Centre of Coloproctology, Moscow, Russia
2 N.N. Burdenko Neurosurgical Institute of the Russian Academy of Medical Sciences, Moscow, Russia
3 Penza Regional Oncology Hospital, Penza, Russia

ANAL LESION CAUSED BY B CELL DIFFUSE LYMPHOMA
Shtyrykova S.V., Magomedova A.U., Kuvrigina A.M., Rybakov E.G., Danishyan K.I.
National medical research center of haematology, Moscow, Russia
State Scientific Centre of coloproctology, Moscow Russia

ULTRASONIC EXAMINATION IN THE COMPLEX DIAGNOSIS OF RECTAL TUMORS (review)
Ivanov V.A., Malushenko R.N., Denisov A.E.
Russian University of Peoples' Friendship, Moscow, Russia
Clinical hospital №24, Moscow, Russia
Department of ultrasound diagnostics and surgery, Faculty of medical training, PFUR, Moscow, Russia

LOCAL RECURRENCE OF COLON CANCER (review)
Nazarov I.V., Sushkov O.I., Shakhmatov D.G.
State Scientific Centre of Colo Proctology, Moscow, Russia

SURGERY OF SLOW-TRANSIT CONSTIPATION AT THE FORK
Achkasov S.I., Aleshin D.V.
State Scientific Centre of Coloproctology, Moscow, Russia
The article is focused on surgical treatment of slow-transit constipation from point of accordance of treatment goal and surgery goal and consequences of surgery.

DIAGNOSTIC VALUE OF EXOSOMAL MIRNAS FOR COLORECTAL CANCER
RESULTS OF THE IMPLEMENTATION OF THE ENHANCED RECOVERY PROGRAM IN COLORECTAL SURGERY

Achkarov S.I., Surovegion E.S., Sushilov O.I., Lukasheyevich I.V., Savushkin A.V.
State Scientific Centre of Coloproctology, Moscow, Russia
AIM: Evaluation of the results of the implementation of ERP in practice.

MATERIALS AND METHODS. Two consecutive series of patients were analyzed. The first cohort was recruited in 2013-2015 (n=124), the second – in 2015-2017 (n=152). Patients were randomized into groups with traditional management and ERP. The postoperative complications, length of stay (LOS) and program adherence were estimated.

RESULTS. There was no difference in complication rates in first and second series, and between groups. The postoperative length of stay in the first cohort of patients with ERP was 4.7±0.1, in the second – 5.8±0.2 days (p=0.0003). Age and comorbidity rate did not affect the outcomes of treatment. The factor associated with doctor was significant in terms of discharge. The postoperative LOS in patients with traditional management decreased from 9±0.6 to 7.8±0.3 (p=0.046) with implementation of ERP.

CONCLUSION. ERP reduces the postoperative length of stay and does not affect the postoperative complications. This Protocol is doctor-dependent. The implementation of ERP improves the results of treatment for all patients in the clinic.

[Keywords: enhanced Recovery After Surgery, ERAS, colorectal surgery, survey]

OUTCOMES OF LOOP ILEOSTOMY CLOSURE METHODS

Achkarov S.I., Sushilov O.I., Moskalev A.I., Lantsov I.S.
State Scientific Centre of Coloproctology, Moscow, Russia

BACKGROUND: Preventive ileostomy closure has potential risk of severe complications with 30% rate of postoperative morbidity and 4% rate of mortality. There is no relevant data (evidence) which method of ileostomy closure is a method of choice.

AIM: To identify effective and safe method of ileostomy closure.

PATIENTS AND METHODS. A prospective randomized controlled single centre trial was carried out in State Scientific Centre of Coloproctology (Moscow, Russia) during the period 2015-2017. Patients with defunctioning ileostomy were randomized to closure by hand-sewn end-to-end anastomosis group, by hand-sewn side-to-side anastomosis group and by stapled side-to-side anastomosis group.

RESULTS. The trial recruited 327 patients. Mortality rate was 0.3%, one post-op death occurred in hand-sewn side-to-side anastomosis group (p=1.0). Morbidity rate was 14.4% in hand-sewn end-to-end anastomosis group, 18.4% in hand-sewn side-to-side anastomosis group and 11.7% stapled side-to-side anastomosis group (p=0.5). Hand-sewn side-to-side anastomosis was associated with longest time of anastomosis creation (49.3 min; p<0.05), longest overall operative time (105.7 min; p<0.05) and longest post-op stay (9.3 days; p<0.05). Stapled anastomosis was faster than hand-sewn (20 min vs 33.1 min and 49.3 min; p<0.001).

CONCLUSION. Superiority in ileostomy closure methods was not obtained. Stapled side-to-side method makes procedure significantly faster and significantly reduces postoperative ileus rate.

[Keywords: loop Ileostomy closure, reversal Ileostomy closure, Ileostomy closure, hand sewn anastomosis, stapler anastomosis]

ADMINISTRATION OF PHLEBOTROPIC DRUGS DURING COMPLEX TREATMENT OF ACUTE HEMORRHOIDS

Belik B.M., Kovalene A.N., Khitamadzhilyan A.L.
1 Federal State Budgetary Educational Institution of Higher Education «Rostov State Medical University» of the Ministry of Healthcare of the Russian Federation, Rostov-on-Don, Russia
2 Municipal Budgetary Healthcare Institution «N.A. Semashko Municipal Hospital No. 1», Rostov-on-Don, Russia

OBJECTIVES OF RESEARCH. To assess the clinical effectiveness of phlebotropic drug Detralex (Micronized purified flavonoid fraction (MPFF)) during complex treatment of patients with acute hemorrhoids.

MATERIALS AND METHODS. A comparative analysis of treatment outcomes of 293 patients with acute hemorrhoids was conducted. All patients were divided into two groups for further clinical observations. Standard drug therapy was performed for 145 patients (group I). For 148 patients (group II), in addition to the standard treatment, phlebotropic drug Detralex was additionally initiated. Research program included detection of content of acute inflammatory phase reactants and pro-inflammatory cytokines in blood plasma, evaluation of pain syndrome severity (VRS) and quality of life parameters (SF-36 questionnaire).

RESULTS. Initiation of MPFF with complex treatment of patients with acute hemorrhoids was found to be contributed to faster elimination of edema and inflammation, a decrease in severity of hemorrhoids thrombosis, relief of pain syndrome and improvement in patients' quality of life, along with well-marked regression of laboratory markers of inflammatory reaction. This allows to increase the number of good outcomes of acute hemorrhoids treatment from 66.2% to 89.9%, that is by 23.7% and to reduce the number of unsatisfactory outcomes from 4.2% to 1.3%, that is by 2.9%.

CONCLUSION. Inclusion of Detralex into program of acute hemorrhoids treatment contributes to a faster elimination of clinical and laboratory manifestations of the disease and allows improving the results of treatment for this category of patients.

[Keywords: acute hemorrhoids, phlebotropic therapy, Detralex]

ACTUAL CLINICAL APPROACH FOR COMPLICATED DIVERTICULAR DISEASE IN GENERAL SURGERY DEPARTMENT
COMPARATIVE RESULTS OF PREOPERATIVE OIL CHEMOEMBOLIZATION OF RECTAL ARTERIES IN COMBINED TREATMENT OF RESECTABLE RECTAL CANCER

Zakharchenko A.A., Popov A.V., Vinikov Y.S., Markelova N.M.

Krasnoyarsk State Medical University named after prof. Voyno-Yasenetsky, Krasnoyarsk, Russia

5-year results of combined treatment of 160 patients with resectable rectal cancer (TNM: IIA-B - IIIA-B) are analyzed. In 40 patients (study group) neoadjuvant (72 h before surgery), endovascular oil chemoembolization of the Rectal Arteries (RACHEL procedure) with a Lipiodol and 5-Fluorouracil was used. The results were compared with surgical treatment (control group 1, n=40) and preoperative radiotherapy methods (control group 2: 5 x 5 G S, up to a Total Focal Dose of 25 Granocito/Regibeau 2: High Dose radiotherapy with a Single Focal Dose of 13 Gw with program Endovascular Radio modification Morniendzole, for 40 patients). The preoperative RACHEL procedure in treatment of patients with resectable rectal cancer was effective with low local recurrence (2.6%) rate, at 5-year overall (89.7%) and disease - free survival (84.6%) and can compete with known preoperative radiotherapy in combined treatment of rectal cancer.

[Keywords: rectal cancer, combined treatment, only chemoembolization of rectal arteries, RACHEL procedure]

COMPLICATED DIVERTICULITIS: MANAGEMENT, DIAGNOSIS, TREATMENT

Karpukhin O.Yu.1,2, Pankratova Yu.S.1, Cherkashina M.I.2, Shakurov A.F.1,2, Ziganchin M.I.2

1 Kazan State Medical University, Kazan, Russia
2 Republican Clinical Hospital, Kazan, Russia

Aim. To analyze the results of treatment of patients with diverticular disease in Coloproctology Department.

MATERIALS AND METHODS. During the period from 2003 to 2017, 223 patients with diverticular colon disease were treated in the hospital. RESULTS. 191 (85.7%) were treated conservatively, 32 (14.3%) patients were operated on. One-stage procedure was performed in 21 (67.7%) patients, in 10 (32.3%) bowel resection has been completed by stoma. Postoperative complications developed in 25% of cases. Postoperative mortality was 3.1%.

[Keywords: diverticular disease of colon, diagnosis, surgical treatment]

THE EFFICIENCY OF POSTOPERATIVE PREVENTIVE TREATMENT BY ADALIMUMAB AND AZATHIOPRINE IN CROHN'S DISEASE

Poletova A.V., Shapina M.V., Khalil I.I., Vardanyan A.V.

State Scientific Centre of Coloproctology, Moscow, Russia

INTRODUCTION. About 75% of patients with Crohn’s disease (CD) required surgery due to the complications of CD. Surgical treatment does not cure this disease and requires lifelong administration of appropriate therapy for the prevention of postoperative recurrence of CD remains open until now. The purpose of this study was to compare immunosuppressive and biological therapy as a postoperative preventive therapy.

MATERIALS AND METHODS. 91 patients with CD who underwent surgery in the A.N. Rybchuk State Scientific Center for Coloproctology of the Ministry of Health of Russian Federation from 2010 to 2017 were included in the study. Patients who had inflammation in the remaining areas of the intestine in the outcome of surgical treatment were excluded from the study. After surgery, patients were randomized into 3 groups. In the first group preventive therapy was carried out with azathioprine, in the second group with adalimumab, in the third group, patients received combination therapy with azathioprine and adalimumab.

Clinical, endoscopic and laboratory assessment of disease activity was conducted at 3, 6 and 12 month after the surgery.

RESULTS. During the first year of preventive therapy with azathioprine, adalimumab, or a combination of this medications, relapse occurred in 17 patients (17/83, 20%). There were no statistically significant differences between the groups in any of the stages of evaluation.

CONCLUSION: The data obtained in the study allow to conclude that the frequency of relapses of CD on postoperative preventive therapy does not depend on the specific drug, as well as on demographic and anamnetic parameters.

[Keywords: Crohn’s disease, relapse, treatment, adalimumab, azathioprine]

EFFECT OF ANTIMICROBIAL AGENTS ON THE BIOFILM GROWTH OF CLINICAL ISOLATES

Sukhina M.A.1, Kalashnikova I.A.1, Kashnikov V.N.1, Veselov A.V.1, Mikhailovskaya V.I.1, Plydina A.Yu.2

1 State Scientific Center of Coloproctology, Moscow, Russia
2 I.I. Mechnikov Research Institute of Vaccine and Serum, Moscow, Russia

OBJECTIVE. To study the effect of active extracellular substances of lactobacilli and antimicrobial agents on the inhibition and destruction of the biofilms formed clinically relevant microorganism strains.

MATERIALS AND METHODS. The study of the impact of different agents on the biofilm formation and growth was carried out on resistant clinical strains of microorganisms obtained from patients with post-surgical infectious inflammatory complications. We used wound dressing solution, cutaneous antiseptic, filtrates of 19 clinical strains of lactobacilli and a strain of Lactobacillus plantarum from the probiotic Lactobacillus acidophilus (Microgen, Nizhny Novgorod, series 46/06-1206) as a reference strain producer of bacteriocins for biofilm inhibition. Biofilms were incubated for 48 hours on glass carriers at 37°C and visualized with a light microscope at 960× magnifying.
RESULTS. All substances possess a good inhibitory potential and have approximately same level of effect. The skin antiseptic and wound washing fluid have only an inhibiting effect on the biofilm formation process, while the having a bactericidal effect on plancton form of the cells. The lactobacilli filtrate inhibited the biofilm formation and was also able to destroy preformed 24-hour bacterial films.

CONCLUSION. The use of lactobacilli bacteriocins can reveal additional opportunities for combating the infection associated with biofilm-forming microorganisms.

[Keywords: biofilms, antimicrobial preparations, bacteriocins, Lactobacillus]

DIAGNOSTIC TACTICS IN THE MANAGEMENT OF PATIENTS WITH DIVERTICULAR DISEASE COMPPLICATED BY A PERFORATED DIVERTICULITIS IN 15 YEARS
Timberbatov M.V.1, Kulyagin A.V.2, Lopatin D.V.2, Al'tova L.R.2
1 GBOU VD Bashkir State Medical University, Ufa, Russia
2 GBUS Clinical Hospital 21, Ufa, Russia

Early diagnostics, treatment and types of surgery of perforated diverticulitis were studied. Archive data of patients with this complication treated in proctology department of City Clinical Hospital №21 (Ufa city, Russia) between 2000 and 2016 were analyzed.

[Key words: diverticular disease of the colon, inflammatory complications of diverticular disease of the colon, perforated diverticulitis]

ACUTE DIVERTICULITIS IN A PATIENT WITH SITUS VISCERUS INVERSUS TOTALIS (clinical observation)
Gainullina E.N.1, Akhmerov R.R.2, Timberbatov Sh.V.1
The Bashkir State Medical University, Ufa, Russia

[Key words: complete reverse arrangement of internal organs, diverticular disease of the colon, acute diverticulitis, acute appendicitis]

ACUTE PERFORATING ULCER OF THE STOMACH IN THE PATIENT WITH ANAEROBIC PARAPRISTIS
Semionkin E.I.1, Khubezov D.A.1, Trushin S.N.1, Luknin R.V.2, Serebryanky P.V.2, Judina E.A.2
SBE EHP «Ryazan State Medical University named after Academician I.P. Pavlov», Ryazan, Russia
SBE RR «Regional Clinical Hospital», Ryazan, Russia

[Key words: anaerobic parapristis, gastric ulcer, gastric perforating, drug gastropathy, stress ulcers, nonsteroidal anti-inflammatory drugs]

DIAGNOSTIC POSSIBILITIES OF FECAL CALPROTECTIN APPLICATION IN PATIENTS WITH INFLAMMATORY DOWEL DISEASES DURING PREGNANCY
(Literature review and clinical observations)
Uspeukhaya Y.B., Belogubova S.I.,
I.M. Sechenov First Moscow State Medical University, Moscow, Russia

[Key words: fecal calprotectin, inflammatory bowel disease, pregnancy]

LOOP ILEOSTOMY CLOSURE (review)
Lantsov I.S., Moskalev A.I., Sushkov O.I.
State Scientific Centre of Coloproctology named after A.N. Ryshin, Moscow, Russia

[Key words: loop ileostomy, preventive ileostomy, ileostomy closure, reversal ileostomy]

THE ROLE OF THE EPITHELIAL-MESSENGINAL TRANSITION IN THE DEVELOPMENT OF COLORECTAL CANCER (review)
Shubin V.P.1, Shehyn Yu.A.1,2, Sushkov O.I.1, Tsukanov A.S.1
1 State Scientific Centre of Coloproctology, Moscow, Russia
2 Russian Medical Academy of Continuous Professional Education, Moscow, Russia

[Key words: epithelial-mesenchymal transition, colorectal cancer, metastasis]

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CLINICAL RECOMMENDATIONS OF THE NATIONAL ASSOCIATION OF SPECIALISTS FOR THE HEALTHCARE-RELATED INFECTIONS CONTROL AND THE RUSSIAN ASSOCIATION OF COLPOPROCTOLOGY ON DIAGNOSIS, TREATMENT AND PROPHYLAXIS OF CLOSTRIDIUM DIFFICILE-ASSOCIATED DIARRHEA (CDI)
Shehyn Yu.A.1, Alekhin V.A.2, Sukhina M.A.1, Mironov A.Yu.2, Briko N.I.3, Koslov R.S.S.6, Zverev V.V.7, Achkasov S.I.1, Kovalishina O.V.4, Seikova E.P.2, Safin A.I.1, Grekova T.A.2, Khalil I.I.1, Frolov S.A.1, Kashtnikov V.N.1, Sushkov O.I.1
1 State Scientific Centre of Coloproctology
2 Gabrichevsky Research Institute of Epidemiology
3 Federal State Budgetary Institution of Education of Higher Training «I.M. Sechenov First Moscow State Medical University» of the Ministry of Healthcare of the Russian Federation
5 Scientific Center of the Ministry of Health of the Russian Federation of Monitoring Antimicrobial Resistance
6 Smolensk State Medical University, Smolensk, Russia
7 Mechnikov Research Institute of Vaccines and Sera, Russian Academy of Medical Sciences

[Key words: Clostridium difficile, C difficile associated infection, glutamatedehdrogenase; toxin A; toxin B; binary toxin; antibiotic-associated diarrhea; sensitivity; specificity, three-step diagnostic algorithm]
CLOSTRIDIUM DIFFICILE COLITIS: THE ROLE OF SURGERY AND FECAL MICROBIOTA TRANSPLANT
Mitěš L.1, Skřiška T.1, Kunovský L.1,2, Polák P.3, Kala Z.1, Čan V.1, Dufková T.4, Janoušková E.4, Hanslímová M.5, Penka I.1
1Department of Surgery, University Hospital Brno Bohunice, Faculty of Medicine, Masaryk University Brno, Czech Republic
2Department of Gastroenterology, University Hospital Brno Bohunice, Faculty of Medicine, Masaryk University Brno, Czech Republic
3Department of Infectious Diseases, University Hospital Brno Bohunice, Faculty of Medicine, Masaryk University Brno, Czech Republic
4Institute of Biostatistics and Analyses, Faculty of Medicine, Masaryk University Brno, Czech Republic
5Department of Clinical Microbiology, University Hospital Brno Bohunice, Faculty of Medicine, Masaryk University Brno, Czech Republic

BACKGROUND. The most challenging task in treating the Clostridium difficile colitis (CDC) is to deal with its fulminating form. It is often non-responding to antibiotics and, upon recurrence, necessitates surgical treatment. The primary aim of our prospective research was to evaluate surgical treatment results in patients with severe CDC in the period of 2008-2014, determining risk factors leading to serious postoperative morbidity and mortality. Our secondary objective was to assess the success of fecal microbiota transplantation (FMT) treatment of the recurrent colitis caused by Clostridium difficile in the period of 2010-2014.

METHODS. During 2008-2014, Clostridial toxins were detected in 1956 patients at the University Hospital Brno. From them, 37 patients underwent surgery for a severe form of colitis. The Fisher exact test and Mann-Whitney test were used to evaluate factors affecting increased mortality and incidence of serious postoperative complications. Factors affecting overall survival were assessed using the Log-rank test. From 2010 to 2014, there were 80 patients with CDC recurrence enrolled and treated with FMT at the Department of Infectious TRANSPLANT Diseases, University Hospital Brno.

RESULTS. Factors that were proven statistically significant to increase the mortality and incidence of serious postoperative complications included: Mental status changes before the surgery (p = 0.008), the albumin level on the day of surgery ≥20 g/l (p = 0.005) and the total serum proteins level on the day of surgery ≥45 g/l (p = 0.037). Statistically significant factors negatively affecting overall survival were found to be: circulatory instability before surgery (p-value = 0.035), mental status changes or artificial lung ventilation with pharmacological attenuation of consciousness before surgery (p = 0.025), CRP value on the day of surgery >75 mg/l (p = 0.034), the albumin level on the day of surgery ≥18.5 g/l (p = 0.007), blood urea on the day of surgery >10 mmol/l (p = 0.019) and the serum creatinine on the day of surgery >120 mmol/l (p-value = 0.004). Thirty-day mortality reached nearly 35%, morbidity climbed up to 89%, and the 90-day mortality was 54%. A total of 80 patients were treated for recurrent CDC with FMT and the success rate of the method was 83.3%. CONCLUSION. Early and accurate surgical intervention in the fulminating form of CDC improves significantly prognosis of patients. FMT is an effective and safe method for treatment of the recurrent form of Clostridium colitis.

[Key words: Clostridium difficile colitis, toxic colitis, surgery, colectomy, fecal microbiota transplant]

SURGICAL TREATMENT OF PATIENTS WITH PELVIC PROLAPSE
Ilkanich A.Y., Darwin V.V., Aleev F.S., Matveeva A.S., Lopatksaya Zh.N.
Surgut district clinical hospital, Surgut, Russia

AIM. To assess efficacy of surgical procedures with use of meshes for pelvic prolapse.

PATIENTS AND METHODS. Retrospective study included 235 females aged 59.3±17.5 years which underwent surgery for pelvic prolapse in 2013-2017. Surgical reconstruction of pelvic floor was performed using several types of meshes: Pelvix («Lintex», Urology («Lintex», Prolift («Gynecare»). Results were assessed clinically (PDD-2 scale), by questionnaire, uroflowmetry, evaluation of QoL (PFDI-20 scale). Patients underwent control examinations 2 weeks after surgery, 3, 6, 12, 24, 36 months.

RESULTS. Post-op complications were obtained in 4 (1.7%) patients and included bladder injury in 2 (0.85%) females and paravisceral hematoma in 2 (0.85%). Control examinations after 2 weeks and 1 month were done in 235 (100.0%) patients, after 12 months – in 140 (59.6%), after 24 months – in 98 (41.7%), after 36 – in 58 (24.6%). Recurrence was detected in 11 (4.7%) patients. Eight (3.4%) produced stress urinary incontinence 1 year after surgery. QoL improved significantly from 159.2 to 28.7 points (p < 0.05). CONCLUSION. Mesh surgery for pelvic prolapse is safe, provides low recurrence and improves QoL significantly.

[Key words: pelvic prolapse, mesh implant, rectocele, cystocele]

EVOLUTION OF PATHOMORPHOLOGICAL CHANGES IN THE FISTULOUS TRACT IN PATIENTS WITH RECTAL FISTULAS
Khitanyan A.G.1,2, Alibekov A.Z.1,2, Kovalev S.A.1,2, Romodan N.A.1, Kislov V.A.1, Voronova O.V.1,2, Osman A.1
1 Rostov State Medical University, Rostov-on-Don;
2 Road clinical hospital on st. Rostov-Main OAO «RJD», Rostov-on-Don, Russia

AIM. To assess pathomorphological changes in perianal fistulas to estimate rationale for FilAc procedure.

PATIENTS AND METHODS. Cohort study included 76 patients, 42 (55.3%) females, aged 23-72 (median 42.2) years. Traditional fistulotomy was performed in 37 (48.7%) of them, 39 (51.3%) underwent FilAc procedure (laser coagulation of fistula track with excision of extraspincteric part of fistula and preservation of interspincteric part). Histological study was performed in all cases with hematoxylin–eosin staining. RESULTS. Fistula morphological structure varied depending on duration of the disease. No fibrous capsule was detected in fistulas track up to 6 weeks, young connective tissue was found within 8-12 weeks and prominent fibrous capsule – after 12 weeks. A depth of laser coagulation thermal impact was 1.5±0.5 mm in cases with duration of disease >12 weeks, in cases <6 weeks – 5.0±1.0 mm (p < 0.0001).

CONCLUSION. Depth of thermal impact of laser coagulation depends on duration of the disease and it is not safe in patients with fistula natural history less than 6 weeks.

[Key words: FilAc, rectal fistula, laser treatment]

ADDISON-BIERMER DISEASE IN THE STRUCTURE OF DIFFERENTIAL DIAGNOSIS CROHN DISEASE (clinical observation)
Achkasov S.I., Sushkov O.I., Khudyakova K.A., Likutov A.A., Vardanyan A.V.
State Scientific Centre of Coloproctology, Moscow, Russia

The paper describes a clinical case in which the diagnosis of colon Crohn’s disease has been changed to Addison – Biermer’s Disease. Detailed differential diagnosis of these diseases is presented.

[Key words: Crohn disease, Addison-Biermer disease, Pernicious Anemia]

SAINT’S TRIAD IN AN EMERGENCY ABDOMINAL SURGERY (case report)
Timmerbalatov Sh., Fayazov R.R., Gainullina E.N.
The Bashkir State Medical University, Ufa, Russia

[Key words: Saint’s Triad, diverticular disease of the colon, cholelithiasis, hiatus hernia]
CHRONIC RADIATION PROCTITIS: MODERN OPPORTUNITIES OF DIAGNOSIS AND TREATMENT (review)
Grechin A.N., Pikunov D.Yu., Mainovskaya O.A., Chernikh M.V., Rybakov E.G.
State Scientific Centre of Coloproctology, Moscow, Russia

[Key words: chronic radiation proctitis, radiation proctitis, radiation therapy]

MINIMAL-INVASIVE APPROACH FOR HEMORRHOIDS TREATING IN PATIENTS WITH INFLAMMATORY BOWEL DISEASE (review)
Kovalenko D.E.I, Atroschenko A.O.1, Vardanyan A.V.2, Khartov I.E.I, Chudynkyh S.M.1, Pozdnyakov S.V.1, Danilov M.A.1, Saikyan G.G.1, Dolgopyatov I.A.1, Abdullatipova Z.M.1
Moscow Clinical and Scientific Center, Moscow Healthcare Department, Moscow, Russia
State scientific centre of coloproctology, Moscow, Russia

[Key words: hemorrhoids, inflammatory bowel disease, HAL-RAR, Chron’s disease]

METHODS OF CONSERVATIVE TREATMENT OF LOWANTERIOR RESECTION SYNDROME (review)
Rybakov E.G., Nafedzov I.O., Khomyakov E.A., Alekseev M.V.
State Scientific Centre of Coloproctology, Moscow, Russia

[Key words: low anterior resection syndrome, Incontinence, LARS, rectal cancer surgery]

D2 VS D3 LYMPH NODE DISSECTION FOR RIGHT COLON CANCER (review)
Tutkakulov N.V, Sushkov O.I., Muratov I.L., Shahmatov D.G., Nazarov I.V.
State Scientific Centre of Coloproctology, Moscow, Russia

[Key words: colon cancer, right colon cancer, lymph node dissection, D2 vs D3 lymph node dissection]

EFFICACY AND SAFETY OF TOFACTINIB IN ULCERATIVE COLITIS (review)
Khaid I.L., Shaplin M.V. State Scientific Centre of Coloproctology, Moscow, Russia

[Key words: ulcerative colitis, conservative treatment, tofacitinib]

ORAL ANTIBIOTIC PROPHYLAXIS IN COLORECTAL SURGERY (systematic review and network meta-analysis)
State Scientific Centre of Coloproctology, Moscow, Russia

[Key words: oral antibiotic prophylaxis, surgical site infections, colorectal surgery]

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IMPLEMENTATION OF MULTISTAGE APPROACH FOR COLORECTAL CANCER WITH BOWEL OBSTRUCTION IN SURGEO UNITS OF MOSCOW
Shabanin A.V., Bagateliya Z.A., Gugin A.V.
Russian Medical Postgraduate Education Academy, Moscow, Russia

AIM: to work out and to implement multistage colorectal cancer treatment as a standard of surgical care in Moscow

PATIENTS AND METHODS: Five-hundred seventy-two patients were included in the study reviewed: 247 of them were hospitalized in 2011-2013 (I group); 325 in 2014-2017 (II group). Forty-six patients underwent conservative treatment; 302 – urgent bowel resection; 141 – proximal stoma formation; 33 – endoscopic stent insertion. One-hundred ten patients of the II group underwent elective bowel resection after 0.5-6 months and further chemoradiotherapy. The 3-year cumulative survival was assessed with Kaplan-Meier method. MultiStage treatment was implemented as a standard of surgical care in Moscow for colorectal cancer complicated by obstruction. Postoperative mortality and morbidity rate were estimated in 2014-2018 in Moscow.

RESULTS: Complications occurred in 46.69 % (I group) and 21.1 % (II group) (p=0.05). Postoperative mortality was significantly higher in I group compared with II group: 26.11 % vs. 10.33 % (p=0.05). The survival rate was higher in II group than in I group (0.82 vs 0.69, p<0.05). The result was a decrease in postoperative mortality in Moscow from 22.4 % to 10.0 %. CONCLUSION: the efficacy of the new standard of medical care of colorectal cancer complicated by bowel obstruction is confirmed. A multistage approach may be a valid alternative in these patients, because of significantly lower postoperative mortality and morbidity rate.

[Key words: colorectal stent; malignant colonic obstruction]

REINFORCEMENT OF STAPLE LINE OF COLORECTAL ANASTOMOSIS AS A METHOD OF PREVENTION OF LEAKAGE
Baikov A.A.1, Rybakov E.G.1, Ponomarenko A.A.1, Alekseev M.V.1,2, Kashnikov V.N.1
1 State Scientific Centre of Coloproctology, Moscow, Russia
2 Russian Medical Postgraduate Education Academy, Moscow, Russia

AIM: to decrease anastomotic leakage rate using transanal and transabdominal reinforcing sutures of staple line of colorectal anastomosis.

PATIENTS AND METHODS: a prospective randomized trial is started. The main group included patients which underwent anterior or low anterior resection of the rectum with reinforcing of the staple line of colorectal anastomosis using reinforcing sutures on 2, 4, 6, 8, 10 and 12 by conventional dial. The control group consisted of patients without reinforcing of the anastomosis line.

RESULTS: from November 2017 to October 2018, 127 patients underwent anterior or low anterior resection of the rectum, 80 of them were included in the study, 64 were excluded from the study after surgery. Among these 74 patients 40 (54.0 %) were females, mean age was 63.0 ± 11.0 years. Forty patients consisted the main group, 34 – control. The anastomotic leakage rate in the main group was 7 % (3/40), in the control – 26 % (9/34) (p<0.06). The clinical anastomotic leakage rate in the main group was 3 % (1/40), in the control group – 21 % (7/34) (p=0.03). The anastomotic leakage rate in the main group, after
CONSERVATIVE LOCAL AND SYSTEMATIC TREATMENT FOR ACUTE HEMORRHOIDS ACCORDING TO ANONYMOUS SURVEY OF SURGEONS IN RUSSIA
Rodin A.V., Privolnev V.V., Danilenkov N.V. 
Sormolin State Medical University, Smolensk, Russia

AIM: to clarify surgeon’s preferences for the acute hemorrhoids conservative treatment.

MATERIALS AND METHODS: an anonymous survey of 102 experienced colorectal surgeons was performed to reveal preferences in acute hemorrhoids treatment. Questionnaire in Russian included 8 items for assessment.

RESULTS: the surgeons reported more than 30 different drugs for the local treatment of acute hemorrhoids. A majority of them consider necessity of systemic phlebotonics. The ÑDetarem was most often prescribed.

CONCLUSION: a majority of surgeons use effective drugs for acute hemorrhoids treatment. In some cases specialists has less knowledge on this problem.

[Key words: acute hemorrhoids, local treatment, general treatment, survey]

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IS THERE A PLACE FOR HIGH-RESOLUTION ANOSCOPY IN THE DIAGNOSTICS OF INFLAMMATORY CHANGES IN PATIENTS WITH CHRONIC HEMORRHOIDS?
Khitarayan A.G.1,2, Allbekov A.Z.1,2, Kovalenkov A.1,2, Shatov I.A.I, Alushyan O.A.3, Voronova O.V.1,2, Burdakov I.Y.1
1 Rostov State Medical University, Rostov-on-Don, Russia
2 Road clinical hospital on st. Rostov-Main OAO «RUD», Rostov-on-Don, Russia
3 Kuban State Medical University, Krasnodar, Russia

AIM: to evaluate the significance of high-resolution anoscopy (HRA) in diagnostics of inflammatory and thrombotic changes in hemorrhoid piles and to assess the efficacy of micromanipulated frozen flavonoid fraction (MPFF) in patients with inflammatory thrombotic changes of hemorrhoids according to HRA results in the preoperative conservative treatment of hemorrhoids.

PATIENTS AND METHODS: a prospective cohort study included 77 patients with grade III chronic hemorrhoids. Patients were divided into 3 groups depending on the degree of development of inflammatory and thrombotic changes according to the HRA. The 3 group included patients with preoperative conservative treatment by MPFF. All patients underwent Milligan-Morgan procedure with further histological study of removed piles.

RESULTS: it was found that the diagnostic sensitivity of the HRA in detection of inflammatory thrombotic changes was 91.3 % (CI=83.6-96.2 %), and diagnostic specificity – 40 % (CI=19-64 %). HRA diagnostic accuracy was 82.1 % (p=0.001). A 30 % decrease in the number of removed piles with moderate inflammatory thrombotic changes after MPFF therapy has also been revealed.

CONCLUSION: HRA permits to determine the severity of thrombotic inflammatory changes, which is extremely important for the management of patients with acute hemorrhoids.

[Key words: high-resolution anoscopy, MPFF, chronic hemorrhoids]

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COMPARATIVE ANALYSIS OF OPEN AND TRANSANAL TOTAL MESORECTAL EXCISION AT RECTAL CANCER
Sheleygin Yu., Chernyshov S., Kazieva L., Maynovskaya O., Kashnikov V., Rybakov E.
State Scientific Centre of Coloproctology, Moscow, Russia

AIM: to evaluate results of transanal total mesorectal excision (TA TME) for rectal cancer.

PATIENTS AND METHODS: Ninety patients were included in the prospective non-randomized study. Forty-five (50.0 %) of them underwent TA TME and 45 (50.0 %) – conventional total mesorectal excision (TME). RESULTS: operation time was significantly higher in TA TME group: 276.4 ± 56.9 (190-400) minutes vs 188.0 ± 56.7 (100-310) minutes in open TME group (p=0.0001). The intraoperative complications rate was significantly higher in TA TME group: 7 (15.5 %) vs 1 (2.2 %) patient (p=0.05). No significant difference in postoperative morbidity was obtained: 18 (40.0 %) in TA TME group vs 27 (37.7 %) (p=1.0). Postoperative stay was lower in TATME group: 9 (7-14) vs 11 (10-14) days (p=0.04). Grade 2 specimen quality was detected significantly more often after TATME than after TME, while Grade 3 specimens were more common after open procedure – 30 (66.7 %) vs 18 (28.9 %) TA TME group (p=0.0006).

CONCLUSION: TA TME is a feasible procedure for rectal cancer patients. It demonstrated all benefits of minimally invasive technique, though learning curve is steep.

[Keywords: rectal cancer, total mesorectal excision, transanal total mesorectal excision, TA TME]

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THE MAIN PROBLEMS AND PERSPECTIVES OF ULCERATIVE COLITIS SURGICAL TREATMENT (review)
Borota A.A.-M.
Gorky Donets National Medical University, Donets

[Keywords: ulcerative colitis, pouchitis, laparoscopy]

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SURGERY FOR PILODINAL DISEASE [review]
Khubezov D.A.1,2, Puchkov D.K.1,2, Serebryansky P.V.2, Lukianin R.V.2, Ogoreltsev A.Y.1,2, Krotkov A.R.1, Ignatov I.S.1,2
1 Ryazan State Medical University, Ryazan, Russia
2 Ryazan State Clinical Hospital, Ryazan, Russia

The treatment of pilonidal disease (PD) is extremely important now. Its incidence is up to 5% of the adults. PD takes the fourth place among such coloproctological diseases as hemorrhoids, abscess and fistula-in-ano and anal fissure. The first experience of PD was described two centuries ago. During this period, various theories on etiology and pathogenesis of the disease were suggested. The western papers support the idea that the acquired genesis is a cause of PD. This point of view is the opposite to the countries of the former USSR, where pilonidal disease is considered as congenital pathology. Numerous procedures have been proposed because of the different theories of the etiopathogenesis. If you take the point of view that PD is a congenital disease, you should mention that the main goal of these methods is elimination of pilonidal cyst with closure of the wound or without. If to consider PD as an acquired disease, the surgical break of pathogenetic mechanism is a key. This approach includes: Bascom I, Cleft LIFT, EPSIT procedures. Every procedure for PD has certain indications and contraindications. The aim of the review is to compare the main methods and determine their strengths and weaknesses. Unfortunately, today there is no "gold standard" in the treatment of pilonidal disease.

[Key words: pilonidal disease, coloproctology, pilonidal surgery]