ABSTRACT
Surgical treatment of inflammatory diseases of intestine remains actual problem, despite the progress of conservative therapy. In our research it was established that applying low and ultralow ileorectal anastomosis with circular - stapling apparatus allows to reach reliability of the generated anastomoses, it is essential reduce operation time, reduce number of postoperative complications and reduce duration of patients stay in hospital.

UDC Code & KEYWORDS
616-006 INTESTINE INFLAMMATORY DISEASES CRONE DISEASE NONSPECIFIC ULCERATIVE COLITIS SURGICAL TREATMENT CIRCULAR - STAPLING INSTRUMENT

INTRODUCTION
Surgical treatment of inflammatory diseases of intestine - Crone Disease (CD) and a nonspecific ulcerative colitis (NUC) remains actual problem, despite the progress of a conservative therapy bound, mainly, with working out of preparations (monoclonal antibodies), neutralisation pro-inflammatory cytokines and neutrophils oppressing adhesion (Owczarek et al., 2009; Reenaers et al., 2009). The operative measure at inflammatory intestine diseases is necessary in case of ineffective conservative therapy or at development of complications (Rosenthal et al., 2009). For today there is common opinion about the most effective methods of formation of an intestinal seam at interintestinal anastomoses (no M.P.Zaharash and co-authors, 2006). So, even at a favorable outcome of operation tearing away, an encapsulation or a long resorption of threads promotes a superfluous cicatisation, narrowing and anastomosis deformation (Solomko A.V., 1999; De Fina S. et al., 2000). All it is inherent, but is appreciable to a lesser degree, to a mechanical seam at use of the American staplers with the “gentle” brackets Russian stapler PKS-25 (Kanshin P. S and co-authors, 2004).

The aim of this study was to estimate of efficiency of applying of low and ultralow ileo-rectal anastomoses by means of circular - stapling apparatus after a resection of a colon at sick of inflammatory-ulcer bowel diseases (IUBD).

MATERIALS AND METHODS
In the Republic Research Center of Coloproctology operated 31 patients with IUBD. 7 from them were patients with CD and 24 patients with NUC. To these patients resections of a colon with applying low (9 sm and above) and an ultralow anastomosis (from 5 to 9 sm) by means of the circular - stapling apparatus of new generation of firm "Ethicon-Endo-Surgery" are executed. Ultralow ileo-rectal anastomosis is imposed to 12 patients, 19 performed a low anastomosis. Sex of the patients were man -19 dominated (61.2 %), women 12 (38,9 %). 24 (77,7 %) patients were aged till 45 years, 7 patients - to 59 years.

Patients are surveyed under the complex program with use of morphological and functional methods of diagnostics. 30 patients had a total lesion of a colon with complications demanding surgical treatment. In one case the link sided lesion is diagnosed. A sphinctrometry spent on sphinctromet with strain gauge M-258K.

From 7 patients with CD at 4 current disease is regarded as serious, at 3 patients - moderately severe. A total colectomy with a rectectomy was executed at 6 of 7 patients with CD, at 1 has been spent link sided hemicolectomy. In 3 cases formed preventive double-barreled ileostomy for anastomosis decompression, in the others 4 cases operation finished with anastomosis applying. The ultralow anastomosis has been executed at 1 patient, at the others 6 - low.

At 15 from 24 patients NUC diagnosed the serious form of disease, at 3 - moderately severe. To the most serious complications which have served by indications to an operative measure, concerned: a toxic dilatation of a colon with development of a serious peritonitis, a colon stricture. The ultralow anastomosis is imposed to 11 patients, 13 patients the low anastomosis is imposed. At 4 patients the anastomosis is imposed by a method «the end - in to the end», at 20 - «the end to side» 7 cases formed preventive double-barreled ileostomy for anastomosis protection which closed in 2-6 months after operation.

Duration of operation of a total colectomy with a rectectomy and applying "low" ileo-rectal anastomosis continued 190±35,6 minute At performance of the same operation, but with applying of an "ultralow" anastomosis it has been spent 210±30,5 minutes (p>0,05). Duration of operation did not depend on form inflammatory bowel diseases. Hemorrhage volume in both groups was 260±35,0 ml.

RESULTS AND DISCUSSION
Results of surgical treatment of patients with IUBD was studied by an estimation close and the remote results, duration of the operative intervention, hemorrhage volume.

As it has been specified above, hemorrhage volume was 260±35,0 ml. Thus differences in investigated groups with applying of "low" and "ultralow" anastomoses it is not taped. During operative treatment indemnification at the expense of transfusion of blood preparations and blood substitutes was performed.

The difference in duration of operation in both groups was observed, however it has not statically authentic appeared. Elongation of operation time at performance of an "ultralow" anastomosis (210±50,5min) is caused by mobilisation of more distal departments of a rectum and topographical features.

Incompetence of an intestinal anastomosis has developed at 3 (12 %) patients, in one case after applying of an ultralow anastomosis, in two - low. In all cases serious NUC with total lesion have been diagnosed. At the patient with an ultralow anastomosis and formation of the J-shaped tank from loops of a small bowel and one patient after closing...
double-barrelled ileostomy and applying low ileo-rectal anastomosis «the end in to the end» the anastomosis incompetence has ended with a lethal outcome. At one patient with low ileo-rectal anastomosis «the end into the side», it was possible to fix at relaparotomy. The lethal outcome frequently has come at patients of advanced age and complicated form of NUC. An incompetence of intestinal anastomosis is the high risk complication at IBD. Observation over patients has shown good functional results. So, from tab. 1 it is visible, that at the signs of a sphincterometry authentically lowered before operation, in 3 months the tendency to their rising, authentic concerning an indicator is traced at a strain. At patients working ability was restored.

| Table 1: Sphincterometry signs (mA) at patients with IBD before operation |
|--------------------------|--------------------------|
| In rest | In tension | In rest | In tension |
| healthy person | 32.8±1.9 | 23.5±2.1* | 23.5±2.1* |
| patients with IBD | 62.7±2.1 | 42.3±3.2* | 53.7±2.1** |
| Before operation | 62.7±2.1 | 42.3±3.2* |
| After operation | 23.5±2.1* | 53.7±2.1** |

Note: * - authentic differences in comparison with the control, ** - authentic differences of signs before operation

Thus, the described above method reduces operation time, reduces traumatisation degree of tissues to the minimum influence on them arms, provides high reliability of tightness of a seam (anastomosis), reliability of a hemostasis, possibility of anastomoses formation in the anatomic areas difficulty accessible to applying of a manual seam. It prevents an invalidism of patients that is especially important, taking into consideration mainly young age patients.

Example 1. Patient М, 17 years, case history №5958, has admitted in clinic 06.06.2009y. with complaints to frequent 6-8 times per day a stool is purulent-bloody contained, the general weakness. Suffered over 1 year period. After survey and diagnostic procedures the diagnosis was – unspecific ulcerative colitis, a total lesion, the moderate-heavy form complicated by a bleeding, intestine pseudopoliposis. 16.06.2009г. under endotracheal narcosis total colectomy, a forward rectectomy, applying circular - stapling apparatus (CDH-29) ultralow ileo-rectal anastomosis «the end into the end» was executed. The postoperative period was smooth. On the third day after operation was liquid stool. Healing of a postoperative wound was primary. The patient in a satisfactory condition in 9 days after operation was discharged from clinic.

Example 1. Patient А, 36 years, case history №4891, has arrived in clinic 10.05.2010y. with complaints to frequent 10-15 times per day a stool is purulent-bloody contained, abdominal pains, the general weakness. Suffered over 1 year period. After survey and diagnostic procedures the diagnosis was – unspecific ulcerative colitis, a total lesion, the serious form complicated by toxic dilatation of a colon, by a bleeding, intestine pseudopoliposis, an anemia of average degree, a chronic diffusive-serous peritonitis, a chronic toxic hepatitis. 18.05.2010r. under endotracheal narcosis total colectomy, a forward low rectectomy, applying circular - stapling apparatus CDH 33 ultralow ileo-rectal anastomosis «the end into the end» was executed. The postoperative period was smooth. On the third day after operation ileostomy has started to work. Healing of a postoperative wound was primary. The patient in a satisfactory condition in 13 days after operation was discharged from clinic.

Within last 3 years we operated 120 patients with chronic nonspecific ulcerative colitis at the age from 15 till 40 years. The pathomorphologic form of colon inflammation was various. Complications of applying ultralow ileorectal anastomosis was not observed.

**CONCLUSION**

It was established, the offered way of applying low and ultralow ileorectal anastomosis with circular - stapling apparatus allows to reach reliability of the generated anastomoses, it is essential reduce operation time, reduce number of postoperative complications and reduce duration of patients stay in hospital.

**REFERENCES**