

Restoration of Continuity of the Colon after Hartman's Operation

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Abstract

Have been investigated a total of 36 patients who underwent restoration of colon continuity during the period from 7 month to 3 year after the colorectal cancer resection by the Hartman's method. Of the 22 patients (61,2%) with standard Hartman's operation, in 6 cases (16,6%), the basic operation was combined with resection of adjacent and distant organs. For exclusion of metastases or recurrences, preoperative complex examination of patients were performed. The colon continuity was restored in 22 cases (61,2%) via the descending and transverse-rectal anastomosis using the manual method and compressive suturing AKA-2. The low anastomosis in pelvis was formed in 5 patients (13,8%), 3 patients underwent the Diuamel's operation and in 7 cases (19,4%) the rectal abdominal-anal resection with descent of the colon in anal canal was performed. 2 patients (5,5%) died and 34 (94,4%) got back to their activities.

Keywords: *cancer, Hartman's operation, colon, resection, restorative surgery, anastomosis, complication*

Introduction

In recent years the significant rise of colorectal cancer incidence is detected in numerous countries and in Georgia as well [1,2,5,6]. Carried out preventive measures for early detection of colon cancer did not gain success and desirable results. The majority of patients (80,0%) apply to the clinics with complicated forms of disease when in most cases the radical operation is actually possible. Although operations are available, all of them end with formation of one or two lumen colostomies.

After the radical operations the patients with colostomy, especially able-bodied, become invalids. They avoid society, experience great moral and physical discomfort acquiring different types of psychotic-depressive syndromes negatively influencing their quality of life. Consequently, the restoration of colon continuity via the delayed reconstructive operation plays an important role in physical and social rehabilitation and drastically improves working capacity of these patients [3].

Especially difficult is restoration of colon continuity after obstructive resection - the Hartman's operation [3,8].

Material and Methods

36 patients after the Hartman's operation were under the follow-up, who underwent the colon reconstructive operation. Female - 15 (41,6%), male - 21 (58,4%). Age ranged from 45 to 80 years old. 30 patients (83,3%) had the stage III, and 6 (16,7%) - IV stage of disease.

Of the 36 patients 22 (61,2%) with the complicated recto-sigmoid cancer underwent standard Hartman's operation with extra-peritonization of stump. Among them the colon resection in 2 cases (5,5%) were combined with cystectomy including urethral transplantation in intestinal reservoir, in 3 cases (8,3%) - with supra-vaginal resection of uterus and ovaries and in 1 case (2,7%) - with resection of liver's IV segment. The Hartman's operation was performed for 14 patients with upper ampular cancer of rectum.

Restoration of colon continuity was performed during the period from 7 month to 3 year after radical operation. 20 patients (5,56%) underwent the reconstructive operation after 7 month, 10 (27,7%) - after 9 month, 3 (8,3%) - after 1 year, and 3 (8,3%) - after 2 years.

In order to exclude metastases or recurrences, preoperative complex examination of patients was performed. Thorough investigation of nonfunctioning rectum and functioning colon is of great importance. All the available methods (digital examination, recto-manoscopy, fibro-colonoscopy, irigography, ultrasound, cyto-histological and microbiological examination of mucous layer) were used for this purpose. The preoperative anti-inflammatory treatment was used in case of proctitis, colitis, and other purulent-inflammatory processes.

In case of rectal muscles' atrophy, as a result of long-term exclusion, the hydro massage with cleansing enema was used in order to restore the muscle tonus.

According to our studies, in the functioning part of the colon develop changes that are manifested by disordered motility (most frequently it is of hypokinetic type). The preliminary study of these parameters is of great value providing possibilities to use appropriate corrective measures in postoperative period.

Results

The most complicated step of reconstructive operation is the finding of extraperitoneally descended rectum stump in pelvis and its mobilization from scars that was available with the use of rectoscope, entered in rectum via the anus. In case of long rectal stump, the colectoplasty was performed by formation of sigmo, descendo and transverse-rectal anastomosis, after preliminary mobilization and descent of colostome in abdominal cavity. In 10 cases (27,7%), anastomosis was created manually by 2 layer aticon suture, and in 12 (33,3%) cases - by mechanical compressive machine AKA-2, among them, in 6 cases (16,6%) - the invaginated anastomosis was received. In 10 cases

(27,7%) the anastomosis was moved extraperitoneally to left lateral abdominal wall with drainaging.

Especially difficult is the creation of anastomosis in case of low rectal stump (6-10sm). In 5 cases (8,3%) the low anastomosis was performed between rectum and colon with compressive machine AKA-2. In 3 cases (8,3%) it was impossible to mobilize the rectal stump from surrounding scars; consequently after the mobilization of rectum, posterior wall near the sacrum was sectioned on the level of the sphincter. The colon was descended here by the Diuamel's method. In 6 cases (17,3%) the rectum abdominal-anal resection with colon descent to anal canal was performed.

Postoperatively, 5 patients (13,8%) developed the suppuration of wound around the postcolostomy area, in 1 case (2,7%) occurred the marginal necrosis of migrated colon. 2 patients (5,5%) died, one with brain hemorrhage, and the second with peritonitis. The low anastomosis incompetence with fistula formation (which was spontaneously closed by itself in a few weeks) developed in 1 (2,7%) patient.

Evaluation of immediate and remote results of surgical treatment revealed, that the less complications and good functional results are reached in patients operated during the period from 7 to 12 months after radical operation. Mentioned period is required for stabilization of patient's general condition, elimination of inflammatory processes. Reduction in abdominal scars also falls on this period.

In conclusion, the results of our study show, that in case of colorectal cancer we can perform not only radical operation, but also reconstruction of the colon continuity, and gain the social and psychological rehabilitation of patients. During the reconstructive operations the colectoplasty should be considered and used as a prior operation. In case of short rectal stump, the Diuamel's operation and rectum abdominal-anal resection with colon descent to anal canal gives the good functional result.

34 patients (94,4%) from 36 got back to their regular activities after the reconstructive operations.

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Восстановление непрерывности толстой кишки после операции Гартмана

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РЕЗЮМЕ

Восстановление непрерывности толстой кишки после операции Гартмана проведено 36 больным. В 27 случаях (75,0%) формирование анастомоза осуществлено между ободочной и прямой кишкой по принципу «конец в конец», из них в 17 случаях (47,2%) анастомоз наложен при помощи механического компрессионного сшивающего аппарата АКА-2. В 3 случаях (8,3%) произведена операция Дюамеля, а у 7 больных (19,4%) после брюшно-анальной резекции прямой кишки ободочная кишка низведена в анальный канал. Предпочтительным методом восстановления непрерывности толстой кишки является колоректопластика. Хорошие функциональные результаты обеспечивают операция Дюамеля и низведение ободочной кишки в анальный канал.

Ключевые слова: *рак, операция Гартмана, толстая кишка, резекция, восстановительная операция, анастомоз, осложнения*