

SURGICAL TREATMENT OF COLORECTAL CANCER WITH LOCAL-REGIONAL EXTENSION

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Even though colorectal cancer is less prevalent than various other oncological diseases of other organs, it still remains a very serious affliction. Complete resection of the tumor and its zone of lymphogenic metastasis is still the main method of treatment.

Common principles of surgical treatment of colon cancer are: radicalness, ablastics, asepticism and providing safe way for gastric contents to exit, preferably in a natural way. The success of surgical treatment largely depends on proper preparation of the colon.

In the last years, colorectal cancer with regional extension forms requiring surgical and complex treatment, became more and more widespread.

Keywords: colorectal cancer with local regional extension, surgical and complex treatment, complex treatment.

Conference participants

 Digital Object Identification: <http://dx.doi.org/10.18007/gisap.msp.v0i10.1387>

Clinical studies are the basis for promoting the modern methods of treatment, introduction of new medications for clinical usage, as well as the diagnostic and therapeutic procedures. Involvement in the clinical studies is primarily based on assuring the security of the patient and getting a complete course of treatment by the patient regardless of the group he/she is in.

In the last decades colorectal cancer took the leading position among other oncological diseases in Europe and USA, but the mortality rate has decreased to 40% since the 90's.

Epidemiologic investigations in most developed countries helped discover a close connection between the increasing morbidity rate of the colorectal cancer and three main factors:

- The increasing consumption of animal fats and proteins;
- The decreasing consumption of dietary fibres. Excessive refinement of carbohydrates leads to the reduction of the non-absorbable cellulose, which represents a kind of absorbents for exogenous and endogenous carcinogenic substances; it also leads to increase in time it takes for substances to pass through the intestines.
- The less dynamic style of living of modern individuals, which also leads to the decreased passage speed through the intestines.

Colorectal cancer is the third in frequency both in men (663,904 cases, representing 10.0% of all malignancies) and women (571,204 cases - 9.4% of all malignancies) in the whole world. New research on colorectal cancer (CRC) has been imposed by the continuous

increase of the disease incidence both in developed countries, which have already registered high levels of prevalence, and in countries where CRC rates were not concerning before. Colorectal cancer (CRC) is nowadays one of the most frequent malignant tumours in the Western world, leading to local invasion or adhesion to surrounding organs in 5% to 20% of the patients. Such situation may demand different operative strategies and technical skills from the surgical team. In this context, a proper oncologic approach includes an en-bloc multivisceral resection of all organs and/or structures involved. Since the distinction between inflammatory or neoplastic adhesions can only be achieved through pathological assessment, separation of the affected organs is not advised to prevent dissemination of malignant cells and tumour perforation. Although locally advanced colorectal lesions were considered inoperable just a couple of decades ago, more extensive procedures are nowadays the only chance for a cure, besides the actions with potentially greater operative risk. Locally advanced primary and locally advanced recurrent cancer of the colon and the rectum are surgically challenging due to clinical presumption of tumour involvement in others structures and organs. The estimated need for extensive surgical resection, often with multivisceral en-bloc resection is crucial for preoperative surgical planning. As for the primary and the recurrent tumours, postoperative long-term survival is achievable, but only after complete R0-resection. The role of neoadjuvant and adjuvant therapy continues to be prevalent in

this era of biological chemotherapies as a multimodal treatment providing an opportunity for the technical realization of resection and improving the long-term survival. Definition of locally advanced disease is necessary in order to achieve practical and theoretical clarity regarding a relatively big percentage of patients with colorectal cancer who are to be treated by a surgeon. Some patients with cancer of the colon or rectum present a different shape and extent of locally advanced primary or recurrent tumour, but in the stage of non-metastatic disease, which, despite the lack of generalization, might be resected. Unresectability criteria are variable and not clearly defined.

Purpose of the research: To improve results of complex treatment of colorectal cancer with local-regional extension through the study of clinical specificity of colorectal cancer with local-regional extension; to create new methods of surgical and complex treatment.

Materials and methods: The study group consisting of 86 patients.

The vast majority of patients with colorectal cancer with expansion to the adjacent organs were in the sixth decade of their life (34.9%), followed by patients in the fifth decade (29.1%). The patients were mainly female - 53.5%, compared to the male percentage of 46.5%.

Results and discussion: CC with tumour extension to adjacent organs and tissues most often (39.5%) occurred in the sigmoid intestine, followed by the ascending portion (20.9%), hepatic angle (16.3%), cecum (13.9%), descending colon (4.7%), transverse colon and

splenic angle (2.3%). Out of 86 patients, II (T3-4 NO MO) evolutionary stages of the disease were in 46.5% patients. It should be noted that in this group of patients in 33 cases out of 40 (82.5%) the evolutionary stage of the disease was classified as T4tumour with invasion of the intestinal wall, including the serous layer, and in some cases intestinal mesentery. A group of patients with metastases in regional lymph nodes represents 53.5% cases. In most cases (51.2%) is extended as colon cancer tumour locations compared to the left colon (46.5% cases). Organs and tissues that were involved in the neoplastic process: retroperitoneal and paraneural tissue (27.9%), small intestine (20.9%), abdominal wall (14%), mesocolon (14%). Uterine annexes, uterus (8.1%), urinary bladder (4.7%) were involved in the cases of sigmoid bowel cancer tumours. In 89.5% of cases after tumour excision, the restoration of intestine continuity did not require protective colostomy. 9 (10.5%) patients used the reason for the association of intestinal occlusion was used colon resection with intestinal anastomosis with application of protective colostomy.






ICC was performed over 50 (58.1%) patients. The most common ICC were in the small intestine and colon resections-18 (20.9%) patients and abdominal wall resection-12 (13.9%) patients. In 13.9% of cases affected colon tumours invaded meso, 17.4% and 10.5% retroperitoneal tissue and paraneural tissue respectively. Operations performed under such conditions were considered as typical. Overall, ICC-removal of a segment of bowel with tumours was done to 50 (58.1%) patients. In 36 (41.9%) patients with local colon cancer that spread to meso- and paraneural and retroperitoneal tissue typical operations were performed depending on tumour localization.


The most common colon resections ICC were combined with resection of the small intestine in 20.9% cases. Pathomorphological study of pieces removed in surgery brought to a conclusion that tumour invasion of the neighbouring organs in 67.4% of cases and the tumour adjacent organ damage in 32.6% of cases proved to be of inflammatory origin.

Colorectal cancer is extremely susceptible for treatment in its early

stages. That is why scientists are carrying out expositional work regarding periodical health examinations and are also developing different methods for early diagnosing of the disease.

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