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SPHINCTERPRESERVING OPERATIONS IN LOWER AMPULLAR CANCER OF THE RECTUM

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ABSTRACT

The Purpose of the study: define the indications and contraindications to sphincterpreserving operation in lowerampullar cancer of rectum.

The Materials and methods: In coloproctological branch of National Oncological Scientific centre (NOSC) in 2005-2009 years 142 patients were performed radical operations, 64 (45,1%) patients were performed sphincterpreserving operations – abdominoanal resection of rectum (AARR), medium age of patients - 59,8 years, beside 78 (54,9%) patients were performed abdomeno - perineal extirpation of rectum (APER), medium age - 54,2 years.

The Results: Studied results of the morphological research of removed preparation by histological structure of tumors and by form of the growing, depending on locations of the tumors on toothed line.

The remote postoperative results studied beside 51 (79,7%) patient with AARR and beside 63 (80,1%) patients with APER.

The Findings: sphincterpreserving operations (SPO) of the rectum can be the operation of the choice in treatment of high differentiated adenocarcinoma (HDA) and medium differentiated adenocarcinoma (MDA) in stages T2-3 in localization of the lower pole of tumors, not below 1 centimeter of toothed line (TL) and carries combined character, in location of the lower edge of tumors on toothed line in patients with HDA

MDA in 4% and 2,2% cases are shown that completing intrasphincternal resections of rectum, in connection with particular aggressiveness LDA question about choice of the method of the treatment under their localizations directly on TL must be solved in favour of complete APER, in exophytic tumor located onto and above TL is indication for sphincterpreserving operation in type of AARR, indices recurrence-free and not metastatic period, one-year death-rate, three-year survivability after SPO at inferior ampular cancer of rectum has not an essential distinction from results after APER.

UDC Code & KEYWORDS

■ 616-006 ■ COLORECTAL CANCER ■ SPHINCTER-PRESERVING OPERATION ■ COMBINED THERAPY ■

INTRODUCTION

Importance of the problem: In spite of reached successes, in modern oncology, leading role in reason of death-rate from malignant diseases as before belongs to the tumor of digestion organs (2,4,8).

According to WHO data (2009), in the world is annually registered more than 1 000 000 cases of colorectal cancer, including in USA 145 000, in Europe 87000 new cases of colorectal cancer, in 2009 in Russia observed 45 000 cases of colorectal cancer, including in USA from this disease annually passed away 60.000 people, in Europe - 38000 and in Russia - 24000 cases to death. (1,5,7).

In Uzbekistan for 100000 population of the men happens to - 3,6, women - 2,5 and cancer of the rectum is occupied on 8 places among oncodiseases (3,9).

In spite of existence of the multiple methods of the combined therapy of the cancer of the rectum, in these days essential method remains surgical operation (4,5,6,9).

From radical operations at present are most often used following types:

I. Abdomeno - perineal extirpation of rectum is performed patients in low located tumor (6-7 cm from anus). This operation is shown also if tumor, located above this level, invated to pararectal fat (T4) and in recidivation.

II. abdominoanal resection of the rectum with voiding is performed if tumor is situated on distance above 6 cm from anus.

In connection with increased requirements to level of lifestyle and appearance of the new technical possibilities changed the specific gravity of sphincterpreserving operation.

THE MATERIAL AND METHODS OF THE STUDY

In coloproctological department of NOSC 1346 patients in 2005-2009 years got inpatient treatment with verified diagnosis of CR.

At admission to hospital all patient held the complex review according to devised in our clinic algorithm diagnostic measure, that not only common clinical methods but also specific studies - transrectal ultrasound, aorto-cavagram, videofibrocolonoscopy, biopsy with the following cyto-histological analysis.

On the base of results of the studies patient before operation carried out the following medical treatments. Herewith unlike earlier offered methods, we organized complex therapy, including inadjuvant endolymphal chemotherapy and intensive hypoxic radio-therapy.

The Course preoperative chemotherapies realized as follows: by endolymphal way entered - methotrexate - 50мг/m2 during 24 hours and fluorouracil - 1000мг/m2 in a day during 48 hours; then conducted regional lymphatic polychemotherapy by administrating to perirectal fat methotrexate - 50 mg/m2 and fluorouracil -1000 mg/m2 with preliminary administrating the cocktail of lymphostimulators, consisting of: Novokaine-0.25%-4мл, Heparin-2500UM, Furosemid-0.5 ml.

The Operation is performed after 2 days following completion of the course of treatment.

Intensive preoperative remote hypoxiradiotherapy was conducted for the reason of preoperative preventive regional metastatic zone; for reducing the frequency of the development local recidivation.

The Method allows to lead to tumor and zone of regional metastasis greater dose than in conventional radiotherapy

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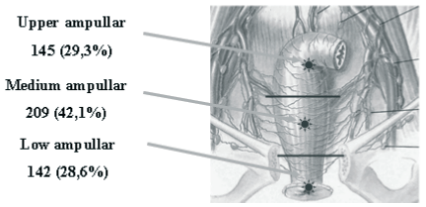
with simultaneous protection of healthy tissues, does not cause the radioreaction. The Mode: SRD = 13gr for 2 hours before operation.

From 1346 patients beside 57% are performed surgical operation. Herewith beside 65% are made radical operations, beside 13% - an operation carried conditionally-radical character and beside 22% patients are performed palliative operation. The Radical operations performed beside 496 patients with T2-3N0-1M0 stage of the process.

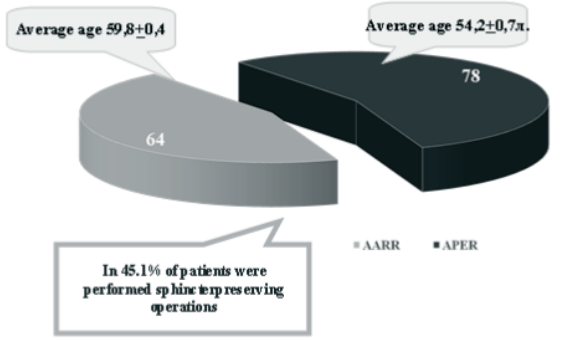
Figure 1: Distribution of patients depending on location of rectal cancer lesion (n=496, T2-3N0-1M0)



Among them cancer inferior ampular part - beside 142 (28,6%).

From 142 (28,6%) patients beside 64 (45,1%) are performed sphincterpreserving operations (AARR), average age patient formed - 59,8 years, beside 78 (54,9%) patient was performed APER, that removed whole anal sphincter mechanism - an average age 54,2 years.

Figure 2: Types of Surgeries performed at the “Low” rectal cancer

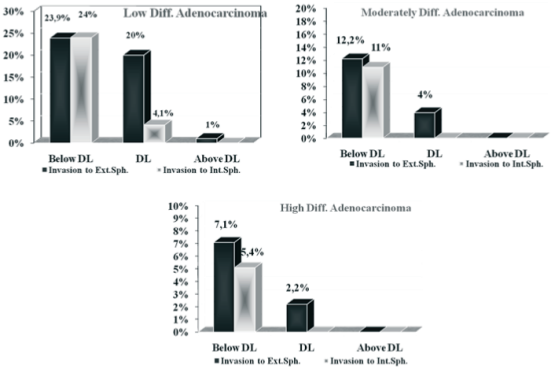


RESULTS

Results of the morphological study removed macro-preporation by histological construction of tumors have shown that in low differentiated adenocarcinoma, when tumor was situated below toothed line invasion to internal sphincter observed in 23,9% cases, but to external sphincter was in 24% cases, when tumor was situated on toothed line invasion to internal sphincter was in 20% cases, but to external sphincter was in 4,1% cases, when tumor was situated above toothed line invasion to internal sphincter was in 1% case, but to external sphincter was not observed. In medium differentiated adenocarcinoma, when tumor was situated below toothed line invasion to internal sphincter was in 12,2% cases, but to external sphincter was in 11% cases, when tumor was situated on toothed line invasion to internal sphincter was in 4% cases, but to external sphincter was not observed, when tumor was situated above toothed line invasion to internal and to external sphincter was not observed.

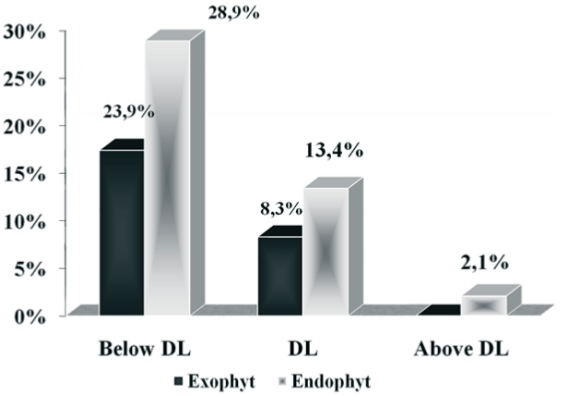
In high differentiated adenocarcinoma, when tumor was situated below toothed line invasion to internal sphincter was in 7,1% cases, but to external sphincter was in 5,4% cases, when tumor was situated on toothed line invasion to internal sphincter was in 2,2% cases, but to external sphincter was not, when tumor was situated above toothed line invasion to internal and to external sphincter was not observed.

Figure 3a: Results of morphological studies of removed tumors after APER



By morphological study of preparation after APER, on type of the growing has defined that in exophytic tumor when tumor was situated below toothed line invasion to internal and to external sphincter was in 23,9% cases, when tumor was situated on toothed line invasion to internal and to external sphincter was in 8,3% cases, when tumor was situated above toothed line invasion to internal and to external sphincter was not. In endophytic tumor, when tumor was situated below toothed line invasion to internal and external sphincter was in 28,9% cases, when tumor was situated on toothed line invasion to internal and to external sphincter was in 13,4% cases, when tumor was situated

Figure 3b: Results of morphological studies of removed tumors after APER



above toothed line invasion to internal and to external sphincter was in 2,1% cases.Our complications are connected with performed surgical operations were divided into 2 groups: intraoperative and postoperative.

Intraoperative complications existed under AARR in 3,5% and under APER - 7,2%.

The Postoperative complications in AARR observed 5,5% , in APER - 6,3% cases.

The Long-term postoperative results studied beside 51 (79,7%) patients by AARR and beside 63 (80,1%) patients by APER on four criteria:

1. Recurrence-free period;
2. Immetastatic period;
3. One-year lethality;
4. Three-year survival.

After AARR from 51 patients beside 3 (5,8%) observed the relapse of the disease, medium recurrence-free period has formed 17,3 months. The Metastasis in long-term period existed beside 6 (11,7%) patients, average length immetastatic period was made 11,4 months. But from 63 patients after APER beside 3 (4,7%) were observed relapse and beside 8 (12,7%) existed the remote metastasis. Accordingly medium recurrence-free and immetastatic period formed 16,1 and 12,5 months.

The indices of one-year death-rate after AARR formed 13,7% (7 patients) and after APER 12,7% (8 patients).

The Analysis of three-year probability of survival evidence that after operation APER and sphincterpreserving manipulation substantial difference was notobserved. Thus, in our observations after APER formed 82,5% (52 patients) and after AARR - 80,4% (41 patients).

THE CONCLUSION

Thereby, sphincterpreserving resection of rectum can be the operation of the choice in treatment in HDA and MDA in stage T2-3 with localization of the lower pole of tumors within not below 1 cm above the TL and carried the combined character, at location of the lower edge of tumors on the line of TL in patient with MDA and HDA in 4% and 2,2% cases are accordingly noted affection of SS, but without affection IS that indicated practicability of performing inner-sphincter resections of rectum, by connection with particular aggressiveness LDA question about choice of the method of the treatment by their localizations directly above TL must be solved the advantage of performation of APER, in exophytic tumor located on the line and above TL is indicated performing of sphincterpreserving operation in the type of AARR, factors showed that recurrence-free and metastatic period, one-year death-rate, three-year survival after SPO at lowampullar CR have not an essential difference from the results after APER.

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