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**SPHINCTER-PRESERVING OPERATIONS IN THE LOWER AMPULAR CANCER OF RECTUM****Dr. Uktam M. Kurbankulov<sup>1\*</sup> and Abrorbek A. Yusupbekov<sup>2</sup>**<sup>1</sup>Researcher and MD at the Department of Oncology, Tashkent Medical HDAdemy.<sup>2</sup>Doctor of Medical Sciences, Deputy Director at the Republican Cancer Research Center, Tashkent, Uzbekistan.**\*Corresponding Author: Dr. Uktam M. Kurbankulov**

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**ABSTRACT**

**The purpose of the study:** is to determine the indications and contraindications for sphincter-preserving surgeries in lower rectal cancer. **Material and methods:** In the Coloproctology Department of the Republican Cancer Research Center (RCRC) for the period 2011-2015, 1,346 patients with a verified diagnosis of colorectal cancer (CRC) received inpatient treatment. Based on the results, the following therapeutic measures were performed before the operation. At the same time, in contrast to the previously proposed methods of preoperative therapy, we carried out complex therapy, including neoadjuvant endolymphalum chemotherapy and intensive hypoxeradiotherapy. Among 1346 patients, 496 patients with T2-3N0-1M0 stage of the process performed radical operations. Cancer of the lower ampoule was in 142 (28.6%). Among 142 (28.6%) patients, 64 (45.1%) performed sphincter-preserving operations named abdominal-anal resection of the rectum (AARR), the average age of the patients was 59.8 years, in 78 (54.9%) patients abdomino-perineal extirpation of the rectum (APER) was performed, during which the entire switching apparatus of the rectum is removed - the average age of 54.2 years. **Results:** The results of the morphological study of remote macropreparations according to the histological structure of the tumor and the type of growth were studied depending on the location of the tumor to the dentate line. The complications associated with the surgical interventions were studied, dividing them into 2 groups: intraoperative and postoperative. Intraoperative complications occurred with AARR in 3.5% and in APER - 7.2%. Postoperative complications with AARR were observed in 5.5%, with APER - 6.3% of cases. Long-term postoperative results were studied in 51 (79.7%) patients with AARR and in 63 (80.1%) patients of APER. When AARR out of 51 patients, 3 (5.8%) had a relapse of the disease, the median of a relapse-free period was 17.3 months. Metastasis in the long-term period occurred in 6 (11.7%) patients, the average duration of the non-metastatic period was 11.4 months. In contrast, of 63 patients after APER, 3 (4.7%) had a relapse and 8 (12.7%) had distant metastases. Accordingly, the median of relapse-free and metastatic-free period was 16.1 and 12.5 months. The rate of one-year mortality after AARR was 13.7% (7 patients) and after APER 12.7% (8 patients). **Conclusions:** The sphincter-preserving resection of the rectum can be the operation of choice in the treatment of highly differentiated adenocarcinomas (HDA) and moderately differentiated adenocarcinomas (MDA) in T2-3 stage with the lower pole of the tumor, localized within 1 cm above the toothed line (TL) and worn combined character. At the location of the lower edge of the tumor, at the level of TL in patients with MDA and HDA in 4% and 2.2% of cases, intercontinental rectum resection is indicated due to the particular aggressiveness of NDA.

**KEYWORDS:** Rectal cancer, sphincter-preserving operations, abdominal-anal resection of the rectum, abdomino-perineal extirpation of the rectum, endophytic tumor growth, exophytic tumor growth.

**INTRODUCTION**

Despite the progress achieved, modern oncology, leading role in the causes of death from cancer still belongs to tumors of the digestive system.<sup>[1,2,3]</sup>

According to WHO (2009), more than 500,000 cases of colorectal cancer are registered annually in the world, including 145,000 in the United States, 87,000 new cases of colorectal cancer in the European Union, and 45,000 people in Colorectal cancer in Russia in 2009; In the

United States, 60,000 patients die from this disease every year, 38,000 patients in the European Union countries and 24,000 deaths in Russia.<sup>[1,5,7]</sup>

In Uzbekistan, 3.6 % of men's population per 100,000, 2.5 women, and rectal cancer is in 8th place among cancer patients.<sup>[3,9]</sup>

Despite the existence of numerous methods for the combined treatment of colorectal cancer, today the main

method remains surgical intervention.<sup>[4,5,6,9]</sup> From radical operations, the following types of operations are most often used today:

I. Abdominal-perineal extirpation of the rectum (the entire rectum is removed with the anal canal and sphincter, usually about the sigmoid region and a permanent colostomy is superimposed) is performed in patients with low-lying tumors (6-7 cm from the anus). This operation is also indicated if a tumor located above this level invades pararectal fiber (T4) and during relapses.

II. Abdominal-anal resection with lowering (in which the muscles and fasciae of the pelvic floor, the closure of the spic gut and the anal canal is preserved) is performed if the tumor is located at a distance above 6 cm from the anus.

III. Intersphincter resection of the rectum (resection of the distal with internal sphincter and stitching the remaining part to the skin). The indication is perineal cancer T1-2N0M0.

Iv. Anterior low resection of the rectum, with the imposition of a colorectal or colo-anal anastomosis with the help of suturing apparatuses.

In connection with the increased requirements for the standard of living and the emergence of new technical capabilities, the proportion of sphincter-preserving operations has changed. Based on this, the goal of our work is to determine whether it is possible to preserve the locking apparatus of the rectum or part of it when the tumor is located directly above the anorectal line without harming radicalism?

## MATERIALS AND METHODS

In the Coloproctology Department of the Republican Cancer Research Center for the period 2011-2015, 1346 patients received hospital treatment with a verified diagnosis of anal resection. Incidence of anal resection tends to increase. Evidence of this is the ratio of patients in 2011 - 239, 2016 - 361.

Upon admission to the clinic, all patients underwent comprehensive studies according to the algorithm of diagnostic measures developed in our clinic, which, apart from general clinical methods, included specific studies - transrectal sonography, aorto-cavography, video fibro colonoscopy, biopsy followed by cyto-histological examination. Based on the results of the studies performed, the following therapeutic measures were performed before the operation. At the same time, unlike the previously proposed methods of preoperative therapy, we carried out complex therapy, including intensive hypoxerapy.

Intensive preoperative remote hypoxeradiotherapy was performed with the aim of preoperative prophylaxis of

the regional metastasis zone; reduce the frequency of local recurrence. The method allows bringing a greater dose to the tumor and its regional metastasis zones than with conventional radiation therapy while simultaneously protecting healthy tissues and does not cause radiation reactions. Mode: ROD = 13Gy 2 hours before surgery. Of 1346 patients, 57% had surgical interventions. At the same time, in 65% radical operations were performed, in 13% - the operation was conditionally radical, and in 22% of patients palliative interventions were performed.

Radical operations were performed in 496 patients with the T2-3N0-1M0 stage of the process. Among them, cancer of the lower ampoule - in 142 (28.6%).

The rationale for performing sphincter-preserving operations in the lower ampullae of anal resection were:

1. Depending on the histological structure, height, and prevalence of the tumor, the abstract principle of "cylindrical excision of the rectum" was replaced by the concept of ablative removal of the drug within the adequate limits of resection.

2. For adenocarcinomas of high and moderate degree of differentiation with the localization of the lower pole of the tumor in 2 or more centimeters from the upper edge of the anal canal, sphincter-preserving operations are offered.

Of the 142 (28.6%) patients, 64 (45.1%) performed sphincter-preserving operations (SPO), the average age of the patients was 59.8 years, 78 (54.9%) patients underwent APER, which removed all rectal switching apparatus - average age 54.2 years.

## RESULTS

The results of a morphological study of remote macropreparations according to the histological structure of the tumor showed that with poorly differentiated adenocarcinomas, when the tumor was located below the dentate line, invasion into the internal sphincter was in 23.9% of cases. In addition, in the external sphincter was in 24% of cases when the tumor was located over the dentate line, invasion into the internal sphincter was in 20% of cases. Moreover, into the external sphincter was in 4.1% of cases when the tumor was located above the dentate line invasion into the internal sphincter It was 1% in the case, and was not in the external sphincter. In moderately differentiated adenocarcinomas, when the tumor was located below the dentate line, invasion into the internal sphincter was 12.2% of cases and in the external sphincter was 11% of cases, when the tumor was located above the dentate line invasion into the internal sphincter was 4% of cases. The external sphincter was not present when the tumor was located above the dentate invasion line into the internal and external sphincter was not. In highly differentiated adenocarcinomas, when the tumor was located below the dentate line, invasion into the internal sphincter was 7.1% of cases, and in the external sphincter, there was 5.4% of cases when the tumor was located above the

dentate line invasion into the internal sphincter was 2.2% cases. In the external sphincter was not when the tumor was located above the dentate line of invasion in the internal and external sphincter was not.

During the morphological study of drugs after APER by type of growth, it was determined that in exophytic tumors, when the tumor was located below the dentate invasion line in the internal and external sphincter, in 23.9% of cases, when the tumor was located above the dentate invasion line in the internal and external sphincter in 8.3% of cases when the tumor was located above the dentate line of invasion into the internal and external sphincter was not. In endophytic tumors, when the tumor was located below the dentate invasion line in the internal and external sphincter, it was 28.9% of cases when the tumor was located above the dentate invasion line in the internal and external sphincter in 13.4% of cases, when the tumor was located above the dentate invasion lines in the internal and external sphincter were 2.1% of cases.

Our complications associated with the surgical interventions are divided into 2 groups: intraoperative and postoperative.

Intraoperative complications occurred with AARR in 3.5% and in APER - 7.2%.

Postoperative complications with AARR were observed in 5.5%, with APER - 6.3% of cases.

Long-term postoperative results were studied in 51 (79.7%) patients with AARR and in 63 (80.1%) patients of APER by four criteria:

Disease-free period;  
Metastatic-free period;  
One-year mortality;  
Three-year survival.

When AARR out of 51 patients, 3 (5.8%) had a relapse of the disease, the median of a relapse-free period was 17.3 months. Metastasis in the long-term period occurred in 6 (11.7%) patients, the average duration of the non-metastatic period was 11.4 months. In contrast, of 63 patients after APER, 3 (4.7%) had a relapse and 8 (12.7%) had distant metastases. Accordingly, the median of relapse-free and metastatic-free period was 16.1 and 12.5 months.

The rate of one-year mortality after AARR was 13.7% (7 patients) and after APER 12.7% (8 patients). An analysis of three-year survival indicates that there are no significant differences after APER operations and sphincter-preserving manipulations. So with APER, this indicator in our observations was 82.5% (52 patients) and after AARR - 80.4% (41 patients).

## CONCLUSION

Thus, anal sphincter-preserving resection can be an operation of choice in the treatment of HDA and MDA in stage T2-3 with localization of the lower pole of the tumor within not less than 1 cm above the PL and be combined in nature, with the lower edge of the tumor at the PL level in patients with MDA and HDA in 4% and 2.2% of cases, respectively, there is damage to the AF, but without damaging the NA, which indicates the feasibility of performing rectum resection, due to the particular aggressiveness of the NDA, the choice of treatment method in their localization Medically over rectum should be decided in favor of performing APER, with exophytic tumors located at and above the PLN, sphincter-preserving operations in the form of AARR are shown; APER.

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