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## PREDICTION AND STUDY OF THE OCCURRENCE OF CERVICAL CANCER RECURRENCE

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### ABSTRACT

Cervical cancer has been found to have increased morbidity and mortality in women around the world. Despite complex treatment according to stratification, the risk of relapse is observed in up to 40% of patients

**Purpose of the study:** - Improving the result of early diagnosis of recurrence of cervical cancer stump after complex treatment, by determining the value of the immune response by immunohistochemical markers in combination with the results of complex research methods

**Materials and methods:** - The basis of the research work was a retrospective analysis of the results of the examination and complex treatment of 87 patients with cervical cancer who were treated and treated at the Republican Specialized Scientific and Practical Center of Oncology and Radiology of Uzbekistan, as well as in its Samarkand Regional Branch from 2012 to 2017. All patients underwent complex treatment of 4 courses of polychemotherapy according to the scheme fluorouracil + cisplatin, laparotomy, extended hysterectomy according to Wertheim type and combined radiation therapy of the small pelvis according to the BOX type.

All patients were divided into 2 groups. The first control group consisted of 32 (36.8%) patients with cervical cancer who underwent complex treatment in various sequences, without relapse for three years. The second group included 55 (63.2%) patients with the same diagnosis, but in whom, after complex treatment, an early relapse was detected at the preclinical stage.

**Results:** - In the study of intense infiltrate with lymphoid follicles, it was mainly observed with the degree of tumor differentiation G-3 and G-4, which amounted to 21 (80.7%) patients in the relapse group, while in the control group in 19 (61%) which significantly higher ( $p \leq 0.05$ ). In group 1, negative expression was noted in highly and moderately differentiated tumors 9 (29%). With low and undifferentiated tumors, moderate and high expression of VEGF (50%) was noted, with further observation in these patients, locoregional recurrence was noted.

In the second group, where there was a relapse of the cervical stump by histological examination, high expression with G-4 was noted in 8 (30.7%), and with G-3 moderate expression in 6 (23%) cases. Low intensity was observed only in 1 (3.8%) G1.As can be seen in Table 4.2, negative expression during relapse, i.e. the absence of lymphoid

**Conclusions:** - Based on our research, differences in cellular immunity play a significant role. In patients without relapses, an increased cellular density of T3DM and T20 was observed, and in patients with relapses and severe course of the disease, low lymphoid density.

We should note that in our study, the strongest predictor of prognosis is the number of CD3 + cells per mm<sup>2</sup>.

## KEYWORDS

Cervical cancer, relapse, combined radiation therapy, VEGF CD3 and CD20.

## INTRODUCTION

According to the histological/cytological verification of the material, it was revealed that a recurrence in the cervical stump up to 1 cm in size was detected in 2 cases, in 7 cases - 1-2 cm, in 13 cases - an increase of more than 2 cm.

When evaluating the values of the MRI results, true negative - in 20 cases, there were no true suspicious, false negative and false positive results.

The obtained data on the comparative evaluation of the results of magnetic resonance imaging of patients with CCRS showed that the sensitivity of MRI in determining a recurrence of up to 1 cm is 66.7%, 1-2 cm - 83%, more than 2 cm - 87.5%. The specificity of MRI in determining CCC up to 1 cm is 83.3%, up to 2 cm 94.1% and more than 2 cm - 83.3%. Diagnostic accuracy of MRI up to 1 cm 90.5, 1-2 cm 93.9% and at more than 2 cm - 95.5%.

Contraindications to MRI are: diseases that do not allow the patient to remain still during the examination, claustrophobia, the presence of a pacemaker or other electronic devices in the body of the subject, as well as the first trimester of pregnancy, but only if the woman wishes to continue the pregnancy. Thus, it has been established that the effectiveness of MRI in determining the degree of cervical cancer is dominated by ultrasound and allows you to correctly determine the development of recurrent cervical cancer.

The prevalence of the disease in the study populations ranged from 40% to 89%. Our analysis revealed that the correlation between colposcopic impression and guided biopsy diagnosis (colposcopic accuracy) was within one histological grade in 89% of cases, and was in exact agreement with histological diagnosis in 61% of cases.

In colposcopy, in the diagnosis, the defeat of earlier signs of relapse is taken as the maximum gradation, the same with preclinical signs of relapse, the criterion is taken as the minimum. This trend is however considered quite low at 5%. The sensitivity of colposcopy in differentiating normal from recurrent cervical tissue varied within  $86.9 \pm 4.7\%$ , and the specificity varied  $67.4 \pm 3.5\%$ . Tumor recurrence up to 1.0 cm was determined in 29 (52.7%) cases, 1.0 to 2.0 cm - in 19 (34.5%) patients, more than 2.0 cm - in 7 (12.7%) patients.

In 6 (10.9%) cases, the diagnosis of cervical cancer recurrence was established on the basis of a cytological examination after colposcopy with a swab, since no signs of a tumor process were detected on ultrasound.

Colposcopic studies of patients with CCRS showed that the sensitivity in determining recurrence up to 1 cm is 95%, 1-2 cm - 90.9%, more than 2 cm - 93.2%. The accuracy of colposcopy in the determination of CC is up to 1 cm - 76%, 1-2 cm - 80%, more than 2 cm - 82%. Diagnostic specificity up to 1 cm - 60%, 1-2 cm - 60%, more than 2 cm - 83.3%.

The Bays method calculated the equivalent of calculating the predictive value of each diagnostic test.

When studying in a comparative aspect the diagnostic efficacy of CCPR at the preclinical stage of each method, we were based on such criteria as the positive predictive value fluctuated 89.8%, and the negative predictive value - 78.5%.

This threshold shift is also reflected in a significant increase in positive predictive values. This result shows that colposcopy with cytological analysis in the diagnosis of preclinical recurrence of cervical cancer. The coefficient of probability of obtaining a specific

result for a given condition is presented in Diagram 3, and a certain upward trend has been maintained throughout all studies. The difference is much greater with G3 than with G1.

This is further evidence that colposcopy is more effective in diagnosing recurrence of G3 cervical cancer.

## CONCLUSIONS

In the diagnosis of recurrent cervical cancer stump after complex and / or combined treatment, the value of colposcopy is significantly higher than ultrasound and MRI, so the sensitivity of colposcopy for recurrence up to 1 cm was  $95.5 \pm 1.2\%$ , the specificity was  $60.2 \pm 4.3\%$ , accuracy  $76 \pm 2.8\%$ .

The sensitivity of ultrasound in determining recurrence up to 1 cm is  $80.0 \pm 2.3\%$ , specificity is  $62.5 \pm 3.8\%$ , accuracy is  $84.2 \pm 6.6\%$ . For MRI, the index of sensitivity, specificity and accuracy is  $66.7 \pm 3.6\%$ ,  $90.5 \pm 2.3\%$ ,  $83.35 \pm 2.8\%$ , respectively. There was no significant difference in resolving capabilities in the diagnosis of cervical cancer stump recurrence using ultrasound and MRI ( $p > 0.05$ ). To determine changes in the cult, taking into account the economic potential, the optimal method is colposcopy with a high amount of information sufficient to make a decision on the tactics of treating this category of patients.

It has been established that overexpression of DM3+ and DM20+ is an independent unfavorable factor in the prognosis of cervical cancer, and its expression level increases at G3-G4. The density and level of lymphoid infiltration can be considered as potential prognostic markers of CCRS, since the level of their expression is significantly associated with the degree of differentiation: overexpression increases with a decrease in the degree of differentiation. ( $p < 0.05$ ).

In the comparative aspect of the diagnostic efficiency of CCPR at the preclinical stage, it statistically prevails on such criteria as the positive predictive value fluctuated 89.8%, and the negative predictive value - 78.5%, which increases the probability coefficients of colposcopy to identify normal tissue from all sections of abnormal tissue.

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