

## CHANGES IN THE TISSUES OF THE CERVIX OF UTERUS

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#### **ABSTRACT**

Relevance: Cervical dysplasia, having an asymptomatic course, has the highest risk of malignancy; annually, cervical cancer is diagnosed in 37,000 women. It affects women of childbearing age and the course of the disease; its early diagnosis is one of the hot topics of modern oncogynecology. The purpose of the study: to improve the methods for diagnosing cervical dysplasia. Materials and methods: the object of the study were 35 women with cervical pathology, who were examined in the gynecological department of the Samarkand State Medical University in the period from 2019 to 2021. Results: when using the Papanicolaou method, the efficiency was CIN I-25.7%, CIN II-54.3%, CIN III-17.1%, and when using liquid cytology CIN I-20%, CIN II-57.1 % and CIN III-20%, although the detection of atypia was the same. Conclusion: based on the data, it can be said that the use of liquid cytology methods and the Papnikalau method as a screening for precancerous diseases of the cervix is an effective and reliable way of early diagnosis and prevention.

**Introduction.** Cervical interepithelial neoplasia (cervical interepithelial neoplasia) refers to cancer because cervical dysplasia is characterized by the presence of atypical cells in the cervix. Often there are no symptoms of cervical dysplasia. Therefore, it is dangerous as the disease progresses and can progress to cancer in a short time. Every year, 37,000 cases are diagnosed with cervical cancer. Cervical cancer plays an important role among cancer patients, as it has a higher incidence and mortality rate, which is even more remarkable, the age range of patients can be from fertile age and above [1,3,7,15].

Causative factors of cervical dysplasia according to modern literature: women with malignant oncological diseases, women with unhealthy habits (alcohol consumption, smoking), multiple pregnancy with

complications, prolonged inflammation of the uterus and cervix, cervical erosion and others [2, 4, 8, 12].

Beginning in 1941, the Papanikalou vaginal examination or PAP smear was used for diagnostic purposes. It has been the main screening method since then and has helped to detect cell transformations at an early stage, thereby improving the rates of detection, early diagnosis and treatment, which in turn contributed to a decrease in mortality and an increase in the life expectancy of patients.

The introduction of new diagnostic methods into science and practice has made it possible to better understand the mechanisms of transformation of the squamous and cylindrical epithelium of the cervix, learn how to diagnose them at an early stage and manage patients without an aggressive effect on the tissues. Liquid-based cytology has become one of the most common cytology tests for cervical cancer today. WHO recommends the use of diluted cytology for cervical disease screening with an efficiency of 95%. The material is obtained painlessly using a special cytotoxic agent and immediately mixed with the liquid in a sealed flocculating liquid. Therefore, this study is called diluted cytology.

In liquid cytology, the cell and its nucleus do not change, and the final diagnosis is made. In addition to the obtained material, polymerase chain reaction (PJR) and immunocytochemical testing can also be performed. The material is taken from 10 to 20 days of menstruation. The test results will be available in 7-10 days. A small amount of vaginal discharge may occur after the test so that sexual intercourse, vaginal lavage, or buffering is not allowed until the test.

Diagnosis and treatment of cervical pathologies has been one of the urgent problems of gynecological diseases for several years. Because when these pathologies are not detected and not treated in a timely manner, the likelihood of the disease becomes more and more dangerous. A study conducted in the Netherlands to evaluate the 10-year effectiveness of a national screening program compared 3 cytology methods (traditional method and 2 liquid cytology methods). The use of the BD TriPath System (SurePath) has been shown to have a higher sensitivity for diagnosing LSIL and results in a reduction in cervical cancer morbidity and mortality, thus increasing the health benefits of the screening program.

Of course, the cause of the disease is important. Papillomavirus infections are the main causes of cervical pathologies [1,3,7,15]. In 97.7% of women with cervical cancer, human papillomavirus infection is determined. The papillomavirus occurs in 70% of cases in women of reproductive age. In a cytological study of practically healthy women using the polymerase chain reaction method, papillomavirus infection was detected in 14 to 19% at the first examination and up to 67% of cases at a second examination. HPV is usually very difficult to detect because it is often asymptomatic. Only 1% of women with HPV have visible changes genital warts (Wright TC et al 2004), this fact confirms the importance of regular examination with a Pap smear.

In fact, more than 74% of women with moderate dysplasia recover within 5 years. Therefore, the risk of developing cancer is significantly low with early detection and timely treatment in the early stages.

**The purpose of the study**: to improve the methods for diagnosing cervical dysplasia. **Materials and methods of research.** The study was conducted on the basis of the gynecological department of Samarkand State Medical University for 2019-2021. The study included 35 women with cervical pathologies (main group) and 35 patients without signs of cervical pathology (control group).

During the study, the patients underwent anamnesis, colposcopy, vaginal examination, laboratory examinations: complete blood count, urine, group and Rh affiliation; bacteriological (examined the discharge from the cervical canal, the study of the degree of purity of the vagina by the cytoscopic method) and cytological research methods: the Papanicolaou method and the method of liquid cytology, colposcopy.

In a clinical study, we studied the anamnesis, living conditions and living conditions, analyzed the diseases suffered in childhood, the development of menarche, the features of the obstetric-gynecological and objective status of each patient.

The following statistical processing methods were used to analyze the obtained data: t - Student's criterion, Pearson's correlation analysis.

The database was compiled on the basis of the criteria and all possible diagnostic features that have predictive value on the Microsoft Office 2013 program. All calculations were made using the statistical function of the Excel program and Statistic 6.0.

**Results and discussion**. The average age of the patients was 38.4±4.5 years. In the anamnesis of patients of the main group, there were frequent inflammatory diseases of the pelvic organs, frequent abortions, aggravated childbirth (the number of births more than 3 was noted in 25.7%, pregnancy complications were in 54.3%, cervical ruptures in 31.4%).

Based on the data, it can be assumed that most women with cervical dysplasia have hormonal disorders, since they have menstrual irregularities in 85.7% of cases and abnormal uterine bleeding in 22.86% of cases.

Tramatization of the cervix in patients with dysplasia has a causal relationship with the disease. 20% of women in the main group underwent abortion more than once.

Colposcopic examination showed CIN I in 10 (28.6%) patients, CIN II in 20 (57.1%), CIN III in 5 (14.3%) patients, metaplasia was noted in 5 (20%) patients from the main group. Colposcopic examination of patients in the control group did not reveal any pathology in the colposcopic picture.

In the control group of patients who, according to objective data, were assessed as practically healthy, no complaints were dismissed. Allocations from the genital tract in a moderate amount were noted by 5 (14.3%) patients.

In the study by the Papanicolaou method or the PAP test, the following results were made: CIN I was detected in 9 (25.7%), CIN II - in 22 (62.8%) and CIN III - in 4 (11.4%) patients, of whom in one case (2.86%) atypical cells were detected. In the control group, 2 (5.7%) patients were diagnosed with CIN I.

When examining the same patients using the liquid cytology method, CIN I was detected in 8 (22.8%) patients, CIN II in 20 (57.1%) and CIN III in 7 (22.8%) patients, including one (2.9%) patient with cell atypia. In the control group, 3 (8.6%) patients were diagnosed with CIN I.

Based on this, it can be said that the method of liquid cytology is more sensitive to determining the degree of changes in cellular structures for screening analysis. But despite this, the efficiency of detecting atypical cells in both methods remains at the same level.

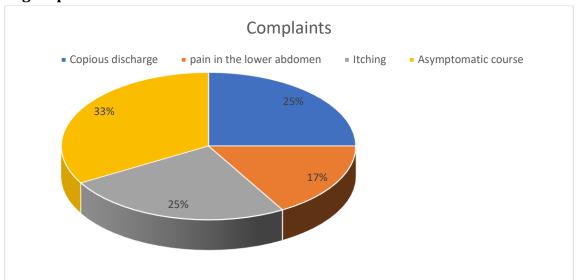
Thus, a complete clinical and laboratory examination in the main group of patients showed the correspondence of the colposcopic picture to cyto-histological methods with the progression of dysplasia, while in the early stages the colposcopic picture may not change. As a result, the final diagnosis is made on the basis of histological data.

According to the state of changes in the cervix, the patients of the main group were divided into 3 subgroups according to the degree of dysplasia detected by liquid cytology: CIN I 8 (22.8%), CIN II - in 20 (57.1%) and CIN III - in 7 (22.8%) of patients, including one (2.9%) patient with cell atypia.

When analyzing complaints from women in the CIN I subgroup, 3 (42.8%) patients had copious discharge with an odor, and 2 (28.5%) had pain in the lower abdomen of a pulling nature and / or pain during intercourse. Itching bothered 3 patients (42.8%) of the CIN I subgroup.

Figure №1

The ratio of complaints and asymptomatic course of changes in the cervix in the CIN I subgroup



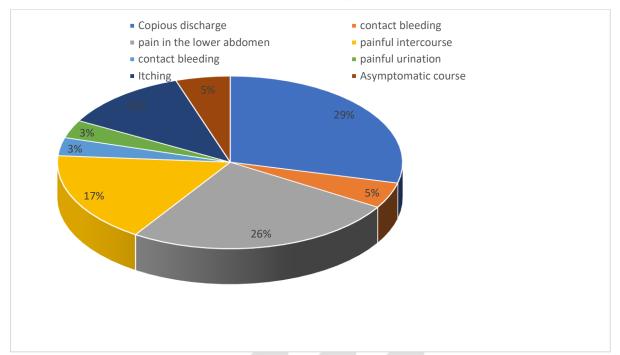
In general, with a complete clinical and laboratory examination, candidiasis was diagnosed in all patients with itching (42.8% of this subgroup, 8.6% of patients of the main group), and ectropion - in 2 (28.6% of this subgroup, 5, 7% of the patients of the main group) patients.

In the control group, the presence of cervical ectropion was diagnosed in one patient (2.86%).

The subgroup with CIN II included 20 women, 17 (85% of this subgroup, 48.5% of patients in the main group) of whom had white-yellow vaginal discharge, and 15 (75% of this subgroup, 42.8% of patients of the patients of the main group) of women had pain in the lower abdomen, 10 (50% of this subgroup, 28.6% of patients of the main group) had painful intercourse, 2 (10% of this subgroup, 5.7% of patients of the main group) of patients, spotting was noted in a small amount and a feeling of heaviness in the lower abdomen. In 2 (10% of this subgroup, 5.7% of the patients of the main group) cases, urination was frequent and painful.

#### Figure Nº2

The ratio of complaints and asymptomatic course of changes in the cervix in the CIN II subgroup



In general, a complete clinical and laboratory examination of women of the CIN II subgroup revealed: candidiasis - in 7 (35% of this subgroup, 20% of patients of the main group), leukoplakia - in 4 (20% of this subgroup, 11.4% of patients main group), ectropion - in 4 (20% of this subgroup, 11.4% of patients of the main group) patients.

The CIN III subgroup included 7 patients, all of them had a whitish vaginal discharge, as well as pain in the lower abdomen. Of these, 6 (85.7% of this subgroup, 17.1% of patients of the main group) patients noted pain during coition and three patients (42.8% of this subgroup, 8.6% of patients of the main group) had bloody discharge during sexual contact. 4 (57.1% of this subgroup, 11.4% of the patients of the main group) of them had frequent urination.

In general, a complete clinical and laboratory examination revealed: candidiasis - in 4 (57.1% of this subgroup, 11.4% of patients of the main group), leukoplakia - in 6 (85.7% of this subgroup, 17.1% of patients of the main group), ectropion - in 3 (42.8% of this subgroup, 8.6% of patients of the main group) patients, atypical cells in 1 (14.3% of this subgroup, 2.86% of patients of the main groups). As can be seen from the data for CIN III, no asymptomatic course was observed in our case. It should also be noted that these patients had a burdened obstetric and gynecological history. In addition, none of these patients visited a gynecologist and did not undergo preventive examinations for more than 3 years.

During our survey, patients from the CIN I subgroup received anti-inflammatory therapy with metronidazole 0.5 mg, 1 tablet 3 times a day for 7 days after meals, fluconazole 150 mg, 1 tablet every 3 days, only 2 doses. Non-steroidal anti-inflammatory therapy (Diclofenac) 3 ml intramuscularly for 5 days. Locally used: Klazin suppositories were injected into the vagina every other day at night, alternating with Depantol suppositories - 1 suppository into the vagina for 10 days. After the next menstrual cycle, treatment was only in the form of local suppositories. Of the control group, 3 patients with discharge and first-degree dysplasia also received this treatment. The efficiency was 100%.

In patients with subgroup CIN II, the treatment was as follows: anti-inflammatory therapy with additional surgical treatment, which included cryodestruction in 13 women

(65% of this subgroup and 37.1% of all patients of the main group) and 7 (35% of this subgroup and 20% of all patients of the main group) electroconization was performed. After treatment, Hexicon suppositories and Neo-penotran suppositories were inserted locally for 10 days. The efficiency was 90%.

In patients in the CIN III subgroup, treatment was the same as in the subgroup with grade 2 dysplasia (anti-inflammatory therapy, additional surgical treatment, and topical suppository treatment). The efficiency was 71.4%. One patient who was diagnosed with cell atypia was referred to the oncology dispensary for further examination and treatment.

**Conclusions**. Based on the results of our observations, we made the following conclusions:

- 1. When diagnosing cervical dysplasia using the Papanicolaou method, the level of CIN I-25.7%, CIN II-62.8%, CIN III-11.4% was determined, of which 1 (2.9%) had atypical cellular atypia. Liquid cytology revealed CIN I-20%, CIN II-57.1% and CIN III-20%, of which only 1 (2.9%) had atypical cellular atypia. Therefore, the method of liquid cytology is considered an effective method for determining the degree of dysplasia. Papanicolaou and liquid cytology showed atypical cells in the same way. Both methods show their effectiveness, but the method of liquid cytology is more sensitive to changes in cellular structures.
- 2. In the control group, only 3 (8.6%) women tested by the liquid cytology method and by the Papanicolaou method had mild cervical dysplasia. This suggests using these methods as screening for cervical precancerous conditions.
- 3. In the initial stages, dysplasia often has an asymptomatic and oligosymptomatic course or is passed under the symptoms of inflammatory diseases, which leads to the fact that it is already diagnosed in stage II or III. It is necessary to improve the quality of health education among women, urging them to be oncologically alert.

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