



## ДИСПЛАЗИЯ ШЕЙКИ МАТКИ

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## ✓ Резюме

Дисплазия шейки матки имея бессимптомное течение больше всего имеет риск озлокачествления, ежегодно рак шейки матки диагностируется у 37 000 женщин. Он поражает женщин фертильного возраста и течение заболевания, его ранняя диагностика является одной из актуальных тем современной онкогинекологии. Цель исследования: совершенствование методов диагностики дисплазий шейки матки. Материалы и методы: объектом исследования явились 35 женщин с патологией шейки матки, которые находилось на обследовании в гинекологическом отделении клиники №1 СамГМУ в период с 2019 по 2021 годы. Результаты: при использовании метода по Папаниколау эффективность составила CIN I-25,7%, CIN II-54,3%, CIN III-17,1%, а при использовании жидкостной цитологии CIN I-20%, CIN II-57,1% и CIN III-20%, хотя выявляемость атипии была одинаковой. Заключение: исходя из данных можно сказать о том, что использование методов жидкостной цитологии и метода по Папаникалау в качестве скрининга предраковых заболевания шейки матки является эффективным и надежным способом ранней диагностики и профилактики.

Ключевые слова: дисплазия, атипия, шейка матки, рак, жидкостная цитология, метод Папаниколау, CIN.

## DYSPLASIA OF THE UTERINE CERVIX

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## ✓ Resume

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 clinic No. 1 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.

Keywords: dysplasia, atypia, uterine cervix, cancer, liquid cytology, Papanicolaou method, CIN.

## BACHADON BO'YNI DISPLAZIYASI

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## ✓ Rezyume

Simptomsiz kechadigan bachadon bo'yni displaziyasi xavfli o'smaga aylanishning eng yuqori xavfiga ega; har yili 37 000 ayolda bachadon bo'yni saratoni tashxisi qo'yiladi. Bu tug'ish yoshidagi ayollarga va kasallikning kechishiga ta'sir qiladi, uni erta tashxislash zamonaviy onkoginekologiyaning dolzarb mavzularidan biridir. Tadqiqot maqsadi: bachadon bo'yni displaziyasini tashxislash usullarini takomillashtirish. Materiallar va usullar: tadqiqot obyekti 2019

*yildan 2021 yilgacha bo'lgan davrda Samarqand davlat tibbiyot universitetining 1-sonli klinikasining ginekologiya bo'limida ko'rikdan o'tgan bachadon bo'yni patologiyasi bo'lgan 35 nafar ayol bo'ldi. Natijalar: Papanikolau usulidan foydalanganda samaradorlik CIN I-25,7%, CIN II-54,3%, CIN III-17,1% va suyuq sitologiyadan foydalanganda CIN I-20%, CIN II-57,1% va CIN III-20 % edi, garchi atipyaning aniqlanishi bir xil bo'lsa-da. Xulosa: ma'lumotlarga asosanib aytish mumkinki, suyuq sitologiya usuli va Papanikalau usuli bachadon bo'yni o'smaoldi kasalliklarini skriningi sifatida qo'llash erta tashxis qo'yish va profilaktikaning samarali va ishonchli usuli hisoblanadi.*

*Kalit so'zlar: displaziya, atipiya, bachadon bo'yni, saraton, suyuq sitologiya usuli, Papanikolau usuli, CIN.*

### Relevance

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 (PCR) 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

The study was conducted on the basis of the gynecological department of clinic No. 1 of the 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  $38.4 \pm 4.5$  years. In the anamnesis of patients of the main group, there were frequent inflammatory diseases of the pelvic organs (table No. 1), frequent abortions (table No. 2), aggravated childbirth (the number of births more than 3 was noted in 25.7%, pregnancy complications were in 54.3%, ruptures cervix 31.4%).

**Table №1 History of gynecological diseases of patients**

diseases	Main group		Control group		p
	n	%	n	%	
Endometritis	18	51,4	6	17,1	0,05
Endocervicitis	24	68,6	4	11,4	0,02
Sexually transmitted infections	21	60,0	1	2,86	0,05
Injuries	11	31,4	2	5,7	0,05
Scraping	12	34,3	3	8,6	0,02
Abnormal uterine bleeding	8	22,86	-	-	0,05
Menstrual irregularities	30	85,7	4	11,4	0,05

Based on the data in Table No. 1, 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.

Based on the data in Table No. 2, it can be said that cervical traumatization 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.

**Table №2 Reasons for abortions of patients**

Reasons	Main group		Control group		p
	n	%	n	%	
Not developing pregnancy	5	14,3	1	2,86	0,05
tubal pregnancy	1	2,86	-	-	0,05
Anomalies in the development of the fetus	2	5,7	-	-	0,05
Miscarriage	3	8,6	2	5,7	0,05
abortion for medical reasons	7	20,0	-	-	0,05

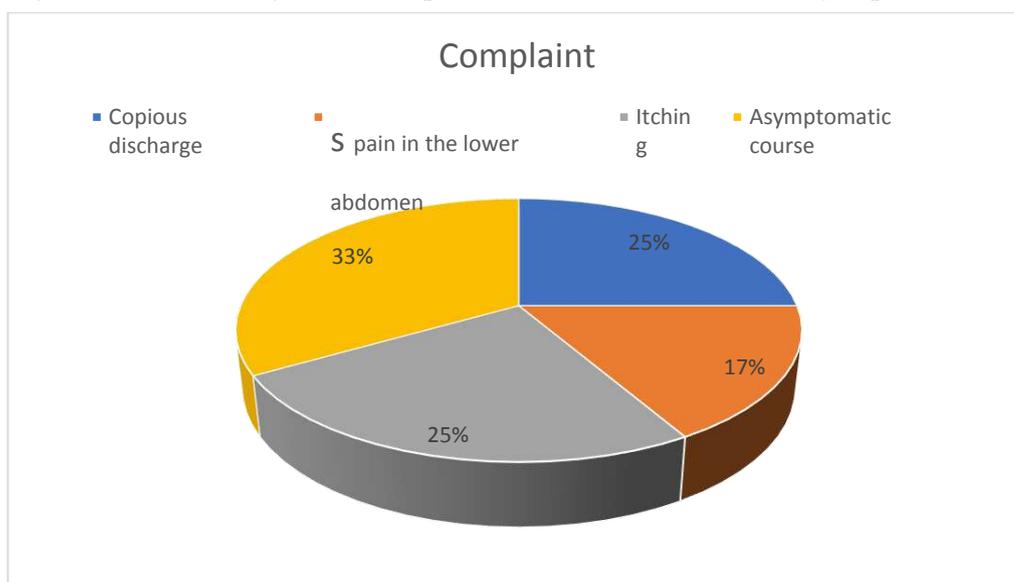
When examining the method of liquid cytology of the same patients, CIN I was detected in 8 (22.8%) patients, CIN II in 20 (57.1%) and CIN III in 7 (22.8%) patients, including one (2.9%) patient with cell atypia. In the control group, 3 (8.6%) patients were diagnosed with CIN I.

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.

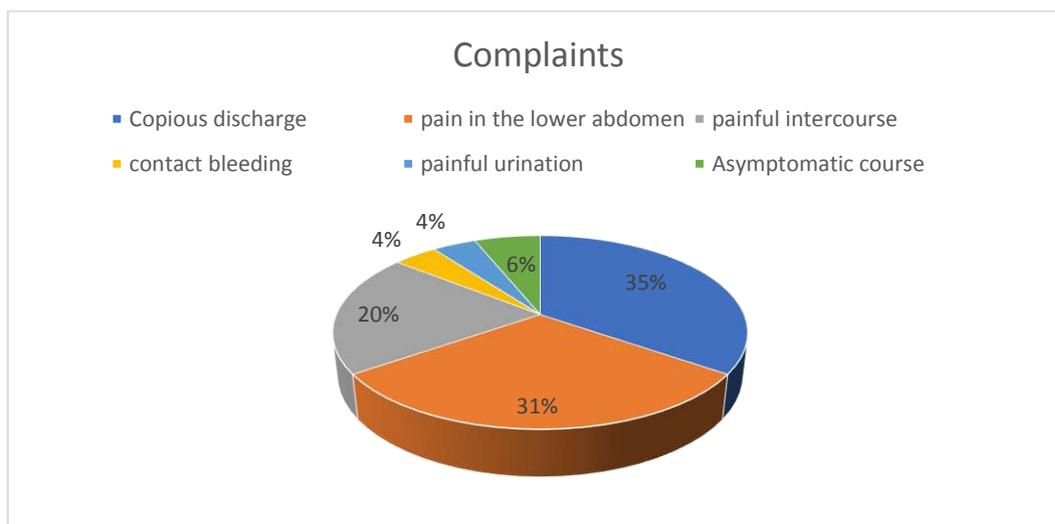


**Figure №1 The ratio of complaints and asymptomatic course of changes in the cervix in the CIN I subgroup**

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 the 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%).

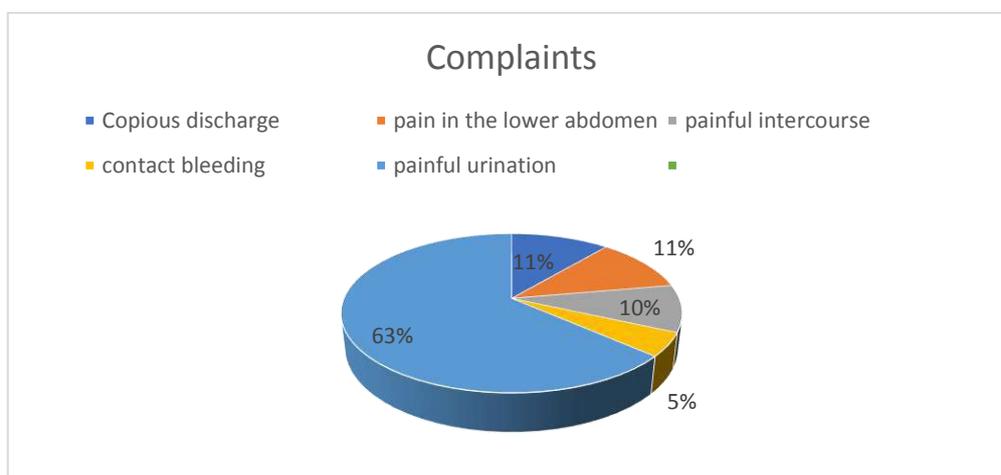
Subgroup with CIN II - included 20 women, 17 (85% of this subgroup, 48.5% of patients of the main group) of which had white-yellow vaginal discharge, and 15 (75% of this subgroup, 42.8% of patients of the patients of the main group) of women had pain in the lower abdomen, 10 (50% of this subgroup, 28.6%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



**Figure №2 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 the 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.



**Figure №3 The ratio of complaints and asymptomatic course of changes in the cervix in the CIN III subgroup**

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. Topically 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) electrocoagulation 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 second-degree dysplasia subgroup (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 liquid cytology and Papanicolaou tests had mild cervical dysplasia. This suggests using these methods as screening for cervical precancerous lesions.

3. In the initial stages, dysplasia often has an asymptomatic and oligosymptomatic course or is skipped 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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