Modern Diagnostic Methods for Early Ddetection of Cervical Diseases

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ABSTRACT

This article describes the results of simple and extended colposcation, which was held among 131 women in repoductive age who consulted with different gynecological diseases. The result of the studies shows that 67,9% women had a diffirent pathological change cervix of the uterus. Of them 24,4% women had not any complaints and clinical sign.

Keywords: Colposcopy, base-line and pre-cancer diseases of cervix of the the uterus, diagnostics of diseases of cervix of the uterus.

The relevance of the problem of background diseases of the cervix is due to the widespread pathology of the cervix, which occurs, according to V.N. Prilepskaya, in 10-15% of women of reproductive age. In addition, it is known that background disease processes can precede malignant neoplasms of the cervix, the incidence of which is currently, according to the studies of V.I. Krasnopolsky [7,11,12,31], V.N. Prilepskaya has no downward trend.

In recent years, Uzbekistan has seen a steady increase in infectious and inflammatory diseases of the vagina and cervix, of which 23.2% are endocervicitis, in 30% of cases, manifestations of cervicitis are observed against the background of ectopia [1-13]. In inflammatory diseases, the processes of maturation and desquamation of the epithelium are disrupted, which creates conditions predisposing to the development of cervical dysplasia [21-29].

The presented data once again confirm that the ctological research method currently remains the leading one in the diagnosis of diseases of the cervix. Unfortunately, there is still an erroneous opinion among gynecologists about the danger of an in-depth cytological examination of the cervix in pregnant women due to possible complications of pregnancy [13-20].

Inflammatory diseases of the cervix, accompanying most of the background processes, were considered by many researchers as etiological factors of possible malignancy [4]. In the works of E.N. Kaukhova, A.Yu. Lugueva, et al. [7] examined 2119 patients with various non-tumor diseases of the cervix (ectopia, simple leukoplakia, hypertrophy, cervical deformity, nabothian cysts, endometriosis). The significance for the diagnosis and choice of the method of treatment of ultrasound of the pelvic organs, the use of PCR, cytological, bacterioscopic, bacteriological methods has been proved. In the studies of I.S. Sidorova, M.N. Zholobova et al. [34] found that 48% of women of reproductive age with combined benign diseases of the uterus (uterine fibroids, adenomyosis and endometrial hyperplasia) were diagnosed with cervical pathology. Research results S.A. Levakova, A.G. Kedrova et al. [14] made it possible to draw the following conclusions: Modern colposcopic diagnosis at the primary gynecological appointment is a

highly informative screening method for moderate and severe cervical dysplasia, reduces the time from diagnosis to treatment by 2-4 weeks, and also reduces by 1- 2 number of visits to the doctor, with an average increase in the time for the initial examination up to 7 minutes. The sensitivity of the colposcopic method was 73.2%, the specificity was 64.1%, and its accuracy was 69%. In the presence of signs of invasion identified during colposcopy, the diagnosis coincided with the data of a cytological study in 80% of cases.

Author Vaganova S.E. [30] proved the advantage of using epigen intima spray for cryodestruction of genital warts. The effectiveness of galenophyllipt in burn erosion of the cervix was studied by the staff of the Institute of Toxicology under the supervision of Doctor of Medical Sciences V.K. Sukhankin. On the model of cervical erosion, a comparative assessment of the effectiveness of galenophyllipt and the registered drug Solkovagin, manufactured by Solco Basel AG, was carried out [30].

The main purpose of the cytological study is to identify the morphological features of cells that characterize the pathological process. The method makes it possible to assess the structure and cellular level of damage to tissues that have fallen into the smear-print, and allows you to identify precancerous changes 3-5 years before the development of cervical cancer [32-37].

In the studies of I.S. Sidorova, M.N. Zholobova et al. [34] found that 48% of women of reproductive age with combined benign diseases of the uterus (uterine fibroids, adenomyosis and endometrial hyperplasia) were diagnosed with cervical pathology. According to the authors, it becomes obvious that there is a need for further study of causative factors, clinical manifestations, morphological and immunohistochemical features of the pathology of the cervix in combination with uterine diseases in order to form a unified approach to diagnosis and treatment.

The problem of diagnosing diseases of the cervix is due to their steady growth and a significant share in the structure of gynecological morbidity. According to T.A. Oboscalova, I.N. Kononova et al. [30] cervical diseases account for 61.2% in the structure of gynecological diseases. In 83% of cases, the pathology of the cervix is accompanied by a violation of vaginal dysbiosis and immune dysfunctions, which is consistent with the data of other researchers.

Diagnosis of precancerous processes in the cervix is carried out in several stages. At the first stage, an initial examination of women is carried out, which includes a thorough history taking, physical examination, examination with gynecological mirrors, bimanual gynecological examination, colposcopy, cytology of smears, analysis of vaginal smears to determine the flora [37-41].

Colposcopy (CS) is a highly informative, widely available and inexpensive method for diagnosing diseases of the cervix (CC), vagina, and vulva, which significantly increases the efficiency of examining women with gynecological pathology. Along with other modern methods of examination, the CS allows you to choose the best ways to manage patients and monitor the state of the epithelium of the cervix, vagina and vulva in various physiological periods of a woman's life, and can be used repeatedly. The main task of the CS is to identify precancerous conditions of the cervical epithelium, which include dysplasia of the stratified squamous epithelium (SSE) and endocervical glandular epithelium, which is initiated by the human papillomavirus (HPV) [12].

Extended CS - the most effective and common technique - examination of the epithelium using various epithelial and vascular tests, in which the reaction of tissues in response to treatment with drug formulations is assessed. The technological chain of the CS includes examination of tissues under different magnifications, using a filter, after treatment with acetic acid and Lugol solutions. Each stage allows you to clarify colposcopic data, since the method is to a certain extent subjective and requires sufficient training and qualifications.

An important method for detecting cervical pathology is colposcopy with the identification of suspicious areas for targeted biopsy.

Colposcopy is a highly informative, accessible and inexpensive method for diagnosing diseases of the cervix, vagina, vulva, which significantly increases the efficiency of examination of women with gynecological pathology.

Purpose of the study. Preclinical diagnosis of cervical diseases in women of reproductive age by colposcopic examination.

Material and methods. For the period from 2016 to 2018, we examined 242 women in the Bukhara Regional Perinatal Center who applied for a consultation with various gynecological diseases at the age of 18 to 46 years. All patients underwent a comprehensive preventive examination, including the method of classical and extended colposcopy using a portable device Digital Video Colposcope 1293, manufactured by Promis Medical (Australia). He was examined by a therapist. Carefully collected anamnesis.

During colposcopy, the shape and size of the cervix and external os, the color and relief of the mucous membrane, the border of the squamous and cylindrical epithelium, and the features of the vascular pattern were determined. Photographing was carried out by an independent optical system, synchronously connected to a computer monitor.

An extended colposcopy was also carried out, applying a 3% solution of acetic acid to the vaginal part of the cervix, due to which pathological changes on its surface were more clearly detected. The action of the solution appeared after 30-50 seconds and lasted 3-4 minutes. After studying the colposcopic picture, the cervix was dried with a cotton swab and lubricated with 3% Lugol's solution (Schiller's test). This method is based on the determination of glycogen content in epithelial cells. Under the action of Lugol's solution, mature squamous epithelium, rich in glycogen, turns dark brown. In precancerous and cancerous diseases, the cells are poor in glycogen and do not stain with Lugol's solution. In addition, areas of thinned squamous epithelium are not stained due to a sharp decrease in the thickness of the intermediate layer and the inflamed mucosa.

To fulfill the tasks set in the work, the following methods were used in examining women.

- Clinical-visual method as one of the most common methods for diagnosing HPV infection.
- Extended colposcopy, which is a highly informative method, including examination and revision of the state of the mucous membrane of the cervix, vagina and vulva with a magnification of 7-8 times using a microscope and the use of some tests that evaluate the reaction of tissues in response to their treatment with various medications means.
- The histological diagnostic method is the most accurate of all methods, but its use is limited in pregnant women.
- Bacteriological - qualitative and quantitative composition of the microflora of the vagina, cervical canal, microbiological examination; PCR diagnostics of urogenital infection, including chlamydia, mycoplasma, ureaplasma, herpes simplex virus (HSV), cytomegalovirus (CMV), as well as identification of the general type of HPV and high-oncogenic and low-oncogenic HPV strains.
- Cytological diagnostics, the use of which in women aged 18-46 years with an interval of 5 years can lead to a decrease in mortality from cervical cancer, was carried out using the Papanicolaou method (Pap test). When evaluating the results of a cytological study, we used the Papanicolaou classification, the most common classification of pathological examination of cervical smears, which has 5 types:

Type I - no atypical cells, normal cytological picture;

Type II - a slight change in cellular elements due to the inflammatory process, manifested by a slight increase in the nucleus, the appearance of cells of metaplastic epithelium;

Type III - there are single cells with changes in the ratio of the nucleus and cytoplasm, dyskaryosis, the diagnosis is not clear enough, a repeat cytological examination is required or a histological examination is necessary;

Type IV - individual cells are found with signs of malignancy, namely with enlarged nuclei and

basophilic cytoplasm, uneven distribution of chromatin;
Type V - there are numerous atypical cells in the smear.
It is important to detect changes in epithelial cells during infection with PVI, koilocytes, and disparakeratosis.

Results and discussion. As a result of complex clinical and endoscopic examinations, 42 (32.1%) women turned out to be practically healthy. With methods 1 and 2, 89 (67.9%) women were diagnosed with certain diseases, including: and exocervicitis in 35 (26,7%), endometriosis of the cervix in 7 (5.3%), pseudo-erosion and erosion of the cervix 28 (21.4%), cervical polyp in 4 (3.1%), simple and partially overlapped ectopia in 16 (12.2%), old cervical tears and scars in 6 (4.6%), narrowing and fusion cervix in 4 (3,1%), cervical papilloma in 3 (2.3%), cervicitis caused by herpetic and fungal infection in 23 (17.6%) (method 4), leukoplakia in 3 (2.3%) , 12 (9.2%) HPV and 53 (40,5%) HPV in pregnant women. Taking into account the clinical and sonographic prognosis, women who had significant discrepancies in the diagnosis were assigned to the group of active observation by an oncogynecologist.
The histological method was carried out in all women. All women were carried out according to the Papanicolaou method (Pap test), 25 (15.2%) women had type I-II and type III-IV Pap test in 10 (6.1%) women.
Dark brown, homogeneous staining of the cervix and a normal colposcopic picture made it possible to classify these women as healthy. Often, pathological changes in the mucous membrane of the cervical canal were found in the presence of hypertrophy, scarring, deformities of the vaginal part of the cervix. It is important to note that in 32 (24.4%) women, pathological changes in the cervix were detected without any complaints and clinical signs prove the undoubted role of colposcopy in the preclinical diagnosis of cervical diseases.
The results of the echographic study of the examined women were entered into a special electronic database. When recording colposcopic data, the location of the identified changes was taken into account. Dividing the cervix into 4 quadrants, all detected changes were indicated by the hours of the dial (for example, at 6 o'clock).
Taking into account the clinical and sonographic prognosis, women who had significant discrepancies in the diagnosis were assigned to the group of active observation by an oncogynecologist.

Conclusions.
Thus, colposcopy is recommended for widespread introduction into the practice of obstetricians and gynecologists in order to carry out comprehensive diagnostic measures. Due to the use of digital video systems with software in modern colposcopes, the effectiveness of this diagnostic method is significantly increased, which allows for adequate timely treatment.
Comprehensive diagnostic measures with the inclusion of colposcopy in polyclinics, gynecological hospitals, more in-depth studies carried out in specialized oncological institutions are promising and expedient, as they improve the accuracy of diagnosing diseases of the cervix, provide adequate timely treatment and provide secondary prevention of cervical cancer.

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