

## TREATMENT OF PATIENTS WITH CERVICAL DISEASES COMBINED WITH HPV INFECTION

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**ABSTRACT** — Treatment of patients with diseases of the cervical cancer and HPV should be complex, based on the pathogenic mechanisms of the disease, and should include both antiviral therapy and destructive treatment throughout the conization of the cervix.

In Russia, there are no standardized approaches to the treatment of patients with diseases of the cervix in the presence of human papillomavirus. [2] There are attempts to observe such patients. Probably, such optimism is based on the recent foreign studies, which showed that in 90% cases of young women infected with nononcogenic HPV types and 70% cases of those infected with oncogenic HPV types, there may happen a spontaneous disappearance of the infection [Bauer HM, Kaufman RH, Adam E., 2002]. According to WHO (2001, 2006), [6] in the absence of confounding factors in the last three years, the LSIL containing HPV are subject to regression in 50-70% cases. According to other authors, the spontaneous cure of HPV occurs even more frequently and at a young age occurs as often as in 90% cases [3,4,5]. What happens later? What are the long-term results of the initial presence of HPV, even after its disappearance? Unfortunately, in most cases the disease only develops further.

Molecular methods of research carried out over the last two decades have proved the etiological role of oncogenic HPV types (Nos. 16 and 18) in the development of stratified squamous epithelial dysplasia of the cervix. Such dysplasia can develop to preinvasive and invasive cancer of the cervix. The key proof of such a pathogenic connection was the separation of DNA of HPV from tissue of genital condylomata, from tissue of cervical cancer tumor, and from cell lines of cervical cancer [zur Hausen, 2000, 2008]. In 2008, this discovery was awarded with the Nobel Prize.

Given these arguments, we have developed a structured treatment of patients with cervical diseases and HPV. This treatment is aimed primarily at the pathogenetic components of the disease (mainly, it



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includes antiviral therapy and destructive treatment). For antiviral therapy we chose Isoprinosine, which, uniquely, has both antiviral and immunomodulatory effects, and Genferon suppositories (1,000,000 IU vaginally).

It is noted that a cervix heals faster after the destructive treatment, if the treatment with suppositories is conducted prior to menstruation. After the menstruation, up to the 10th day of menstrual cycle, we conducted destructive treatment of cervical disease in patients with cervical cancer and HPV, throughout the conization of the cervix using a Surgitron conization electrode.

The circular cervical excision (conization) involves removing the damaged zone where the HPV introduction took place (initially it happens through comes through microtraumas of ectocervical epithelium (pathogenic entry). (See Fig.1.)

### INDICATIONS FOR THE CONIZATION OF THE CERVIX:

- Identified hyperplasia or endocervical polyps in combination with HPV in patients without colposcopic changes in ectocervix.
- Pseudo-erosion and leukoplakia of the cervix in patients with identified hyperplasia or endocervical polyps in combination with HPV.
- Flat condyloma or CIN of types I and II in patients with identified hyperplasia or endocervical polyps with or without HPV.

All patients (38 patients with HPV in total, of whom 35 patients had ectocervical disease, and

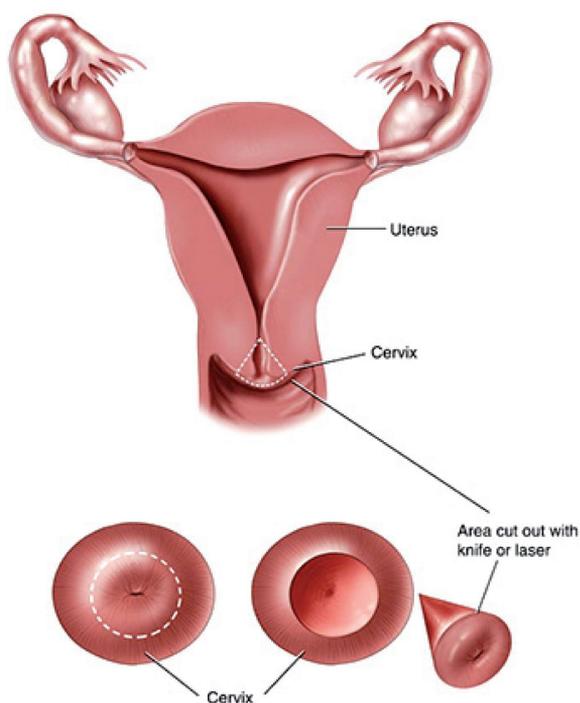


Fig.1. Cone Biopsy (Conization) of the Cervix

3 patients did not) went through conization of the cervix (Figure 1). The conization was conducted on an outpatient basis immediately after the menstrual period up to the 10th day of menstrual cycle, using the standard method for this operation with paracervical anesthesia. The surgical intervention was carried out using the full and adequate local anesthesia. The patients were completely awake. One third of patients showed a slight bleeding from the wound during the surgical intervention. Hemostasis was conducted by coagulation of blood vessels with the ball electrode of Surgitron. After the surgery the patient could leave the clinic in a satisfactory condition, without the need to take sick leave.

In all patients with HPV, the histological examination of the removed tissue showed koilocytosis and CIN type I. In all patients with HPV without colposcopic changes in the cervix, but with hyperplastic processes in the cervix, that have gone through conization of the cervix, morphological analysis also revealed koilocytosis and CIN type I.

The results of the epithelialization process is shown on Figure 2.

Thus, the epithelialization processes of the removed tissues in all patients with and without HPV were 100% complete by the 60th day. In patients with HPV, the epithelialization was slower.

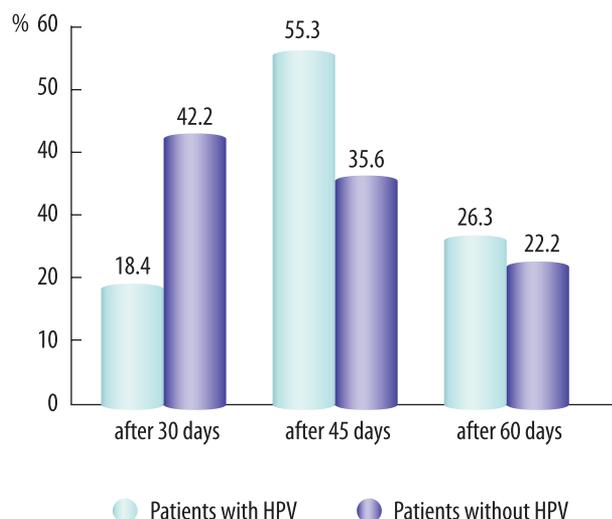


Fig. 2. Complete epithelialization

## RESULTS OF CASE-CONTROL STUDIES AFTER THE TREATMENT

We conducted the Pap test with all patients after the full and complete epithelialization, and appearance of the normal colposcopic picture. The Pap test showed 1-2 types of the smear. After 2 months we conducted the quantitative estimation of HPV with all patients with the method Digene Hybrid Capture System II (97,9% cases were negative)

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