

Human Papilloma Virus Test as a tool for cervical cancer prevention

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Human Papilloma Virus (HPV) causes skin warts and condylomata of mucosal membranes of different body organs. It is also established that it is directly linked to cervical cancer, or to much lower extent to other anogenital cancers. Cervical cancer is the second most common cancer in women worldwide. In developed countries the incidence decreased significantly in recent decades due to the use of Pap test screening, which is able to detect precancerous abnormalities, consequentially allowing timely treatment.

There are more than 100 different HPV types, of those over 40 types infect anogenital organs and are sexually transmitted. About 25 HPV types are able to cause changes in mucosal cells of cervix with possibility of cancer development and are called high-risk or oncogenic types. The 15 low-risk types are often involved in condylomata or genital warts and usually do not lead to cancer. Even though the Pap test remains an essential tool in revealing of precancerous lesions, it is not able to detect HPV directly; neither can it give an answer to whether the detected changes are caused by high or low-risk HPV type.

HPV detection and typing is usually a supplementary test for a gynaecologist after the Pap test result indicates some kind of changes in the mucosal cells. Based on the HPV typing results along with other circumstances in each patient individually, further action and treatment will be decided.

The Department of Molecular Virology of the CING offers HPV detection test in gynaecological samples as well as swab and biopsy samples, where there is a suspicion of HPV infection. In the case of a positive detection of the virus in the sample, we are able to detect which type of HPV is present.

In recent years HPV vaccine has been introduced and is recommended for young people before they start being sexually active. The vaccine available on the market in Cyprus provides protection against the two most common oncogenic types HPV16 and HPV18 and the two most common types causing condylomata HPV6 and HPV11. Long-time efficiency and booster necessity of the vaccine are still not known.

HPV test, therefore, along with the Pap test, remain invaluable tools in the gynaecological diagnostics as not all the HPV types are included in the vaccine and many women have not been vaccinated. Cervical and other genital cancers are still one of the leading causes of death of women worldwide and thus prevention offered by proper testing should not be undervalued and must remain a priority for every society.