



## **Oooops...very low incidence of HPV infection in patients with CIN2+ in population with very high incidence of carcinoma cervicis! Why?**

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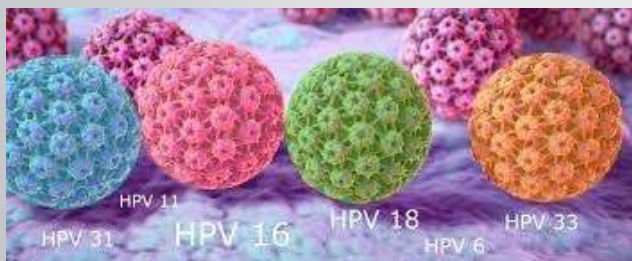


### **Background**

Serbia has incidence of cervical carcinoma 20,3/100000 what means twice then west Europe. The HPV virus is one of the main causes of the development of precancerous and cancerous changes in the cervix, especially, infection with high risk types. Testing for the presence of HPV virus in our country has so far not been covered by insurance and there are no studies on the true incidence of HPV infection in the female population in Serbia until one year ago when HPV testing has been covered by insurance.

### **Aim**

We evaluated the presence of HPV infection in cervical specimen and identified specific types of Human papillomavirus in two groups of the patients. One group were patients who had CIN 2+ lesions before conization and the other group were healthy women without CIN2+ lesions.



### **Material and method**

The study was conducted at the University clinic for Obstetrics and Gynecology "Narodni front", Belgrade, Serbia. The study was performed on a cohort of 53 patients with CIN 2+ and 84 patients without CIN2+ and all of that patients during primary examination had already normal PAP smear test. Cervical cells were collected in the lithotomy gynecological position of the patient, using endo-cervical brush and cotton-tipped swab, and both were placed in sterile test tube with phosphate buffered saline. Samples were stored at temperature of 2 - 8 °C and Human papillomavirus (HPV) genotyping was analyzed within 7 days by multiple Polymerase Chain Reaction (PCR) methods.

### **Results**

The mean age of enrolled women was 37 (minimum of 20 and maximum 67 years). Among the patients with CIN2+, the presence of HPV by using PCR was detected in 24,58 % (13patients) and among control group was 22,37%. The incidence of HPV was highest (66,10%) in women aged 30-40 years old and it decreased with age and was lowest (6,5%) among patients older than 50 years. The prevalence of oncogenic types of the virus was highest then presence low risk type in both group. Results of HPV typing showed that HPV 16, 58 and 31 were the most common types detected among the patients with CIN2+ and some of them have infection with multiple types. HR-HPV type 16 and 31 was the most common type in control group. LR-HPV type 6 is most common type in both group. Surprisingly, in our population with CIN 2+ and control group we did not find any patients with type 18 and 11.

### **Conclusions**

Our study showed very low incidence of HPV infection in CIN2+ group, almost the same, as in control healthy patients. We did not find any patients with type 18 and 11. Probably, many other factors are including in developing precancerous lesions, especially, in our country because we were bombarding with depleted uranium and maybe it can have influence.