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**P-33; HPV TYPE DISTRIBUTION AND SEROPREVALENCE OF HPV-SPECIFIC ANTIBODIES IN VACCINATED WOMEN IN THE CZECH REPUBLIC**

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**Objectives:** Today two commercial prophylactic HPV vaccines have been licensed to prevent *de novo* HPV-16 and HPV-18 infection. Nowadays numbers of sexually active women are being vaccinated. It has been shown that vaccination of women with incident and/or persistent infection with the vaccine HPV types is less effective or ineffective. This study was proposed to assess the proportion of women at risk of reduction of the vaccine efficacy.

**Materials and Methods:** Women who decided to get the HPV vaccine and had already started the sexual life were enrolled. All women have signed the information consent. The gynecologists provided the cytological results not older than 3 months. All women underwent sampling for HPV DNA testing and assessment of HPV antibodies (Ab) prior to the receiving the first dose of vaccine. Until the end of 2007, ninety women (mean age 23,6 years, age range 16–49 years) have been enrolled in the study. The HPV detection and typing was done by PCR with GP5+/6+-bio primers and reverse line blot assay. Detection of HPV-specific antibodies was performed by direct ELISA with VLPs 6, 11, 16 and 18 as antigens.

**Results:** Altogether, 61.5% of samples were HPV DNA/Ab positive, 47.8% samples were positive for the vaccine HPV types. Incident (HPV DNA positive, HPV–capsid antibodies negative) and persistent (HPV DNA positive, HPV–capsid antibodies positive) infections with HPV-16 and/or 18 were found in 3.3% and 5.6% of the vaccinated women, respectively. The most prevalent type was HPV16 (20%). All women will be followed to ascertain the vaccine efficacy.

**Conclusions:** Our results have shown that in the female population of the Czech Republic HPV vaccines might be less effective and/or non effective in about 9% of the vaccinated women. To confirm this assumption all women will be followed.

**Acknowledgement:** Supported by IGA MZ CR NR/8852-3.