

Abstract

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Title: Screening of p16 protein level, a potencial marker for cervical cancer

Bachelor's thesis

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Degree program: Medical bioanalysis

Study: Medical laboratory technician

Background: Cervical cancer is one of the few oncological disease with proven etiological agent. The cause of this disease is persistent infection caused by high-risk genotypes of human papillomavirus . Cervical cancer is worldwide the second most common cause of death in women under 45 years of age. Preventive gynecological examinations, which include a cytological examination of the cervix can soon diagnose pre-cancerous stages and thus significantly contribute to the timely treatment.. At present, commonly used screening tests are primarily limited in senzitivity, therefore are searched for more senzitive and specific new diagnostic methods. One of the candidate methods is test based on quantitative determination of p16 by ELISA method.

Methods: Colorimetric enzyme linked immunoanalysis, a commercially available kit Cervatec™ p16^{INK4a} ELISA.

Result: 72 various cytological smears from cervix were obtained from gynecological examinations of women. Determined values of protein p16^{INK4a} were in 65 of analyzed samples below and in 5 of analyzed samples over *cut off* value determined by manufacturer.

Conclusions: Determined p16^{INK4a} values show only partially correlation with the severity of cytological and histological abnormalities revealed by screening examination of testing women.

Keywords: human papilloma virus, cervical cancer, preventive screening examination of cervix, Cervatec™ p16^{INK4a} ELISA.