## **ABSTRACT**

Cervical cancer is the most common malignant tumors in the Czech Republic in women older than 35 years. Created on the basis of pathological changes of epithelial cells or so called precancer, manifested no symptoms. Timely is, they can only be detected by specialized colposcopy, cytology and biopsy examinations. In advanced cancer, are present typical symptoms: lower abdominal pain, bleeding after sexual intercourse or vaginal discharge. The main cause of this disease is an infection caused by high - risk types of human papilomaviruses. These viruses have the ability and persistence occur in 90 % of cases detected. Diagnosis of cancer of the cervix must be comprehensively evaluated the results of a Pap test, biopsy examination and positive HPV typing.

The thesis deals with cytological examination called Pap test, cervical smears and their microscopic diagnosis to distinguish the early stages. Alteration of the cells was evaluated according to the classification of Bethesda 2014. Further deals with immunohistochemical examination of cervical biopsies, which makes it easier to demonstrate the type of dysplasia. Reactions demonstrating the positivity of p<sup>16</sup> was performed on sections, previously described immunohistochemical procedure. The aim was to identify patients over 30 years of samples taken in 2014 and 2015, the incidence of each pathological forms and evaluate the completeness of relapse in patients after curative surgery. The next task was to provide an overview of the recommended coloring processes cervical cytology used in the country and abroad.

In 2014 - 2015 was adopted at the department 421 950 cytology samples. Of this total, 341 patients diagnosed with HG SIL cytology conclusion. In this group, 30 patients older than 30 years who was accompanied by histology and immunohistochemistry. The diagnosis of dysplasia was determined in 21 samples. Out of the 18 newly diagnosed patients was a damage metaplastic squamous epithelium in various degrees. In 3 patients experienced progression and regression of lesions confirmed by repeated therapeutic intervention. One of the most common reasons lesion progression after curative surgery is performed incompletely conisation or persistence of HPV infection in the body. However, also after surgery to patients requiring long-term follow-up.