**Objectives:** Our study aims to evaluate the prevalence of HPV genotypes in cases with high grade squamous intraepithelial lesions (HGSIL) cytology, in the North East Romania, a region with early age of first intercourse and high natality.

**Material and Methods:** 34 patients (median age 37) with HGSIL were investigated by cytology, colposcopy, HPV genotyping and biopsy (LLETZ, conisation). HPV presence was confirmed by INNO-LIPA assay, a technique that allows the detection/genotyping of 17 HPV genotypes. We analyzed the association between the pathological investigation and the viral genotypes, according to the age groups and lesion severity. We discussed the causes of HGSIL cases with negative HPV genotyping.

**Results:** Our cases confirmed that HPV genotyping is a good marker to confirm HGSIL. All lesions of CIN2+ presented HPV-16 alone or in association with other types, except one case of false negative. HPV-16 was absent in biopsies specimens with lesions less than CIN2. The multiple HPV type infections were recorded especially in CIN2 lesions (5/8 cases), diminishing in percentage with the increasing of lesion degree (4/12 cases in CIN3-CIS, 0/5 cases in micro-invasive lesions). The incidence of HPV types was as follows: HPV-16 (16/34 cases), HPV-31 (5/34 cases) and HPV-18 (4/34 cases). According to the age group, the 20–30 years patients presented more CIN2 lesions (5/10 cases) while the 30–40 years patients included more CIN3-CIS lesions (6/13 cases). In the group of 40 years and over there were more invasive lesions (2/7 cases).

**Conclusions:** HPV genotyping is useful in discriminating false positive HGSIL results in menopause, when both cytology and colposcopy could be unsatisfactory due to atrophic changes.