Background: Metastatic involvement of pelvic nodes is the most important prognostic parameter in early-stage cervical cancer. Still, approximately 15% of patients with negative pelvic nodes experience recurrence, majority of them in the pelvis. The presence of HPV DNA in histology-negative pelvic nodes is considered a subclinical metastatic spread.

Methods: Patients with early-stage cervical cancer referred for surgical treatment were enrolled in the study. Cytobrush technique was used for sample collection from the fresh tissue to avoid any loss of material for histology.

Results: Altogether, 49 patients were enrolled in the study. High-risk (HR) HPV was identified in the tumor in 91.8% patients, and in the sentinel node or other pelvic nodes in 49.9% patients. Among the 10 HR HPV genotypes detected, HPV 16 was the most frequently represented in both the tumor and the lymph nodes (66.7% and 71.4%, respectively). All metastatic lymph nodes were HPV positive.

Conclusion: The presence of HR HPV DNA in a sentinel node had a positive predictive value for metastatic involvement of pelvic lymph nodes in our study. This could be considered a sign of an early subclinical metastatic spread; however, the prognostic value has to be evaluated through a longer follow-up.