

# CORRELATION BETWEEN CERVICAL CYTOLOGY AND HISTOPATHOLOGICAL CERVICAL BIOPSY FINDINGS ACCORDING TO THE BETHESDA SYSTEM

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## STEPEN KORELACIJE CERVİKALNE CITOLOGIJE PO BETHESDA KLASIFIKACIJI SA PATOHISTOLOŠKIM NALAZIMA CERVİKALNE BIOPSIJE

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### ABSTRACT

*The Pap test (Pap smear) is a morphological cytodiagnostic test that reveals premorbid and early stages of cervical cancer through the use of cervicovaginal cytology.*

*The present study was conducted at the Department of Gynecology and Obstetrics, Clinical Center Kragujevac, from January 01, 2013, to December 1, 2013, with patients who were part of the national screening program and who used a secondary cytological examination (Pap test) performed using a conventional method.*

*The patients were grouped according to the results of a Pap smear and histopathological findings. The classification of cytological smears was performed in accordance with the Bethesda system. The hypotheses established in this study were statistically tested.*

*The greatest number of cytological findings was NILM. However, the most frequent abnormal cytological findings in terms of percentage were ASC-US. After secondary cervical findings of 8.1% of the total number of women, biopsies were performed. In 68.57% of the biopsies performed, CIN was present in all of them, with the most frequent ones being LSIL (50.6%), HSIL (10.4%) and CA Invasiva (0.5%). This study, using the  $\chi^2$  test, confirmed that cervical cytology and biopsy results are dependent features ( $\text{sig.} = 0.036$ ), between which there is a medium association (Cramer's  $V = 0.176$ ). In the ASC-US cytological findings, small percentages of CIN1 and CIN2 were detected. Cervical cytology in this study presented high sensitivity, specificity, positive and negative predictive value. As a relatively inexpensive, painless and easily approachable method, cervical cytology fully substantiates its implementation in diagnostic procedures as well as in organized screening programs.*

**Keywords:** Cervical cancer, Pap test, Bethesda system

### SAŽETAK

*Papa test je morfološki citodijagnostički test kojim se pomoću analize cervikovaginalne citologije otkrivaju predstadijumi i rani stadijumi karcinoma grlića materice.*

*Studija je sprovedena na Klinici za ginekologiju i akušerstvo, KC Kragujevac u periodu od 01. 01. 2013. god. do 01. 12. 2013. god. na pacijentkinjama kojima je u okviru Nacionalnog skrining programa odrađen sekundarni citološki pregled (PAP test) konvencionalnom metodom.*

*Pacijentkinje su grupisane prema rezultatima PAP testa i patohistološkim rezultatima. Klasifikacija citoloških briseva je vršena prema Bethesda klasifikaciji. Statističkim testovima su testirane hipoteze postavljene u ovoj studiji.*

*Najveći broj citoloških nalaza bio je NILM. Procentualno najzastupljeniji abnormalni citološki nalazi su bili ASCUS. Nakon sekundarnog cervikalnog nalaza kod 8,1% od ukupnog broja žena je odrađena biopsija. U 68,57% urađenih biopsija je bio prisutan CIN od kojih je najzastupljeniji bio nalaz LSIL (50,6%), zatim HSIL (10,4%), i CA INVASIVA (0,5%). Ovom studijom, uz primenu  $\chi^2$  testa, potvrđeno je da su cervikalna citologija i rezultati biopsije zavisna obeležja ( $\text{Sig.}=0,036$ ), između kojih postoji veza srednje jačine (Cramer's  $V=0,176$ ). U citološkom nalazu ASCUS detektovano je mali procenat CIN1 i CIN2. Cervikalna citologija u ovoj studiji pokazuje visoku senzitivnost, specifičnost, pozitivnu i negativnu prediktivnu vrednost. Kao relativno jeftina, bezbolna i lako dostupna metoda u potpunosti potvrđuje svoju primenu, kako u dijagnostičkim procedurama, tako i u organizovanim skrining programima.*

**Ključne reči:** karcinom grlića materice, PAP test, Bethesda klasifikacija

























