

EP12.13 Cervical strain quantitative elastography (E-Cervix) in patients with high-grade vs. low-grade squamous intraepithelial lesions (SIL).

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Objectives: The aim of this study was to evaluate whether quantitative parameters obtained using E-Cervix quantitative strain elastography possess differential diagnostic capabilities in patients with histopathologically confirmed low- and high-grade squamous intraepithelial lesions (LSIL, HSIL).

Methods: The study included 26 patients who, due to abnormal cytology results and a positive high-risk HPV test, were referred for colposcopy with cervical biopsy. Cervical elastography was performed before the procedure according to the E-Cervix methodology. Based on subsequent histopathological results, patients were classified into LSIL or HSIL groups. We compared elastographic parameters, such as the Hardness Ratio (HR), Elasticity Index (ECI), Internal Os Strain (IOS), External Os Strain (EOS), and IOS/EOS ratio, between the groups. Continuous variables were analyzed using the Mann-Whitney U test.

Results: Of the initial participants, 6 were excluded due to the absence of lesions in cervical biopsy samples. Among the remaining patients, 7 were diagnosed with HSIL, and 13 with LSIL. We compared elastographic parameters between the groups (Table 1). The groups did not differ significantly in terms of the median values of the elastographic parameters examined.

Conclusions: Patients with LSIL and HSIL do not appear to differ in elastographic parameters as measured by the E-Cervix software. Further studies with a larger patient population are necessary to address the potential for Type II error.

Comparison of two groups in terms of elastographic analysis results.

Parameter	LSIL	HSIL	p
ECI	3,21	3,43	>0,05
HR	82,62	81,26	>0,05
IOS	0,187	0,194	>0,05
EOS	0,22	0,21	>0,05
IOS/EOS	0,85	0,92	>0,05