

Association of anal dysplasia with cervical dysplasia and high-risk HPV subtypes in women Sonal Chaudhari, MD – University of California, Los Angeles

Topic: Cervical

Objectives

High-risk human papillomavirus (hrHPV) infection is a necessary risk factor for cervical and anal dysplasia. Over the last five years, there is increasing evidence that the natural history of hrHPV-induced anal cancer is close to that of cervical cancer. However, evidence-based anal cancer screening recommendations are limited and thus this study aims to characterize the prevalence of cervical dysplasia in women with anal dysplasia. In this study, we aimed to identify the association of anal dysplasia with cervical dysplasia and high-risk HPV subtypes in women.

Methods

A retrospective observational study was performed from January 2015 to December 2022 at an academic medical center. Women referred for anal cancer screening with Pap smears and anoscopies were evaluated for lifetime history of cervical dysplasia and for correlation with hrHPV subtypes during screening. Multivariate logistic regression and chi-square tests were performed.

Results

114 women who underwent anal cancer screening were identified. 78 (68.4%) patients were identified to have anal dysplasia and 16 (20.5%) had high-grade anal dysplasia. Cervical cancer screening data was identified for 109 women, of which 29 (26.6%) had cervical dysplasia, however none had high-grade cervical dysplasia. 50 (43.9%) women were positive for human immunodeficiency virus (HIV). Preliminary analyses show that those with anal dysplasia are more likely to have cervical dysplasia (OR 7.30, p=0.004). Those with cervical dysplasia are more like to have high-risk anal HPV (OR 4.72, p=0.005) and anal dysplasia (OR 7.18, p=0.004). Though those with high-grade anal cytology were not found to have cervical dysplasia, women with HIV were more likely to have cervical dysplasia with high-grade anal cytology (p=0.012).

Conclusions

We found that high-risk anal HPV and anal dysplasia were more likely to be found in those with cervical dysplasia. We also found that rates of anal and cervical dysplasia were increased in those with HIV and a history of any malignancy. Since anal dysplasia can be detected and subsequently treated, anal cancer screening should be recommended to women with cervical dysplasia. Further studies are warranted to guide recommendations to screen women with cervical dysplasia for anal dysplasia.