Poster 1: Understanding the role of at-risk cytology and co-testing categories in cervical cancer development: are current tactics in management sufficient?

Presenting Author: Caroline K. Doyle, BS – Creighton University School of Medicine

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Topic: Cervival

Objectives

Our project seeks to evaluate at-risk categories of cytology and co-testing results preceding cervical cancer diagnoses who may be triaged to a repeat screeing interval over immediate colposcopy based on the current ASCCP guideline recommendations.

Methods

We conducted a retrospective descriptive study of patients diagnosed with cervical cancer from January 2012 to May 2023. Variables collected included: age, race, ethnicity, prior cancer history, tobacco use, hormonal contraceptive use, sexual history, stage and histology of cervical cancer, cervical cancer diagnosis date, preceding cytology/HPV testing results, management after testing, history of cervical dysplasia and treatment types, and cervical cancer treatment and outcomes. Eligible patients identified utilizing the most recent screening test (cytology/HPV testing) preceding their confirmed cervical cancer diagnosis based on 4 at-risk categories: 1) NILM without cytology, 2) NILM with HR HPV non-16/18, 3) ASCUS with HR HPV non-16/18, and 4) LSIL with HR HPV non-16/18 . Exclusion criteria included inconclusive HPV/cytology testing, inconclusive diagnosis, or most recent cytology >1 or 3-5 years (i.e. outside of screening window) from prior to cancer diagnosis.

Results

127 patients with a cervical cancer diagnosis and available cytology/co-testing were identified from our cancer registry. 31 patients met inclusion criteria (Table 1). Twenty-three (18.1%) patients had NILM cytology preceding a cervical cancer diagnosis, with the majority (60.8%) of patients in the age 30-65 category. An additional 10.1% (7 patients) were older than age 65. Seven (30.4%) patients were diagnosed with early-stage cervical cancer; however, the majority (69.6%, 16 patients) had advanced disease at diagnosis. Ten (43.5%) patients had squamous cell histology, 10 (43.5%) patients had adenocarcinoma, 2 (8.7%) patients with neuroendocrine carcinoma, and 1 (4.3%) patient had adenosquamous histology. In the NILM with HR HPV 16/18, two patients in the age 30-65 category developed cervical cancer. Both patients had HPV 16 positive early-stage squamous cell carcinoma. No patients were identified in the NILM with HR HPV non-16/18 category. In regard to low-risk cytologies, 4 patients ages 30-65 developed cervical cancer in the ASCUS with HR HPV non-16/18. All patients had early stage disease and squamous cell histology. Lastly, two patients ages 30-65 in the LSIL with HR non-16/18 cytology developed cervical cancer. Both patients had squamous cell histology, and 1 patient had early-stage disease while the other had advanced-stage disease.

Conclusions

Preliminary findings emphasize that a cytology alone screening strategy may be insufficient for identification of pre-invasive or invasive disease, particularly in ages 30-65. In addition, when cervical

cancer was identified, it was in the advanced stages in over two-thirds of the patient cohort. Incorporation of additional eligible patients and clinical variables in analysis is underway.

Abstract Table or Graph
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