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Why anal cytology is not enough in a dysplasia screening program

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Dear Editor,

In our previous study (1), we stated that anorectal cytology (ARC) should not be used as the sole method for anal dysplasia screening (ADS). We read with great interest the letter of Revollo et al. (2) and we would like to respond to some points.

Anal squamous cell carcinoma (ASCC) shares several similarities with its cervical counterpart, such as a causal association with human papillomavirus (HPV) and an intraepithelial cancer precursor (HSIL) stage that can be detected by ARC (3). It has been proposed that cytology-based ADS programs may similarly lead to a reduction in anal cancer incidence. However, such programs have been implemented in a limited number of situations, mostly in men who have sex with men (MSM) and/or with HIV (3). However, we agree with Revollo et al. that these screening programs should be offered to other high-risk populations, as in our study (1).

Most ADS programs use ARC as the preferred screening method, and patients with anal cytological abnormalities are referred for a diagnostic test such as standard or high-resolution anoscopy for histological assessment (4). Some programs only refer patients with HSIL for anoscopy guided biopsy, whereas other studies refer patients with any degree of cytological abnormality for biopsy. However, ARC is an imperfect screening method due to its limited sensitivity and specificity. Our results (1) show that

64% of patients with high-grade lesions on histological examination had lower grade lesions on cytological examination. Furthermore, four patients had a negative cytology test and if ARC was offered in these cases as the sole screening method, high-grade lesions would be missed. Considering the high rates of missed cases in high-risk populations that could really benefit from ADS, we think that ARC is inadequate, at least on its own. This technique should be paired with a direct visual modality, as other authors have suggested previously (5). Our results show that standard anoscopy could reduce the rate of missed lesions and should be offered to all high-risk groups.

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