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These factors were categorized: on a personal level, within the relationship, with regard to feelings and action. The most dramatic result was showed that one out of six reported having ended his relationship and one was too afraid to start a new relationship.

*Conclusions:* This small study shows the impact of psychological factors on sexual functioning after electrocautery treatment. We advise that sexuality is discussed during HRA visits to allow healthcare providers to resolve misconceptions and provide sexual counseling or refer them to sexual counselor experts.

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# Implementation and early outcomes from an anal cancer screen and treat program in Nigeria

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*Background:* The risk for anal cancer is 52-fold higher in men who have sex with men (MSM) living with HIV but screening is not available in Nigeria. This study trained clinicians to screen and treat using high resolution anoscopy (HRA) and evaluate the prevalence of anal precancer.

*Methods:* TRUST/RV368 recruited MSM for anal cancer screening in Abuja, Nigeria. Between Aug/2016-Aug/2017, 426 men completed a screening questionnaire, had a digital anorectal exam and underwent HRA. Participants could enroll in the study's initial training phase, the pilot study, or both. The most severe diagnosis on histology or cytology determined the final result. All men diagnosed with high-grade squamous intraepithelial lesions (HSIL) were offered ablative treatment with a hyfrecator.

*Results:* Median age was 24 years (interquartile range [IQR]: 22–29) and median years since sexual debut was 6 (IQR:3–11). More HIV-infected MSM participated in the training phase as compared to the pilot (80% vs. 59%). For the 121 MSM screened during training, 9.9% (95% CI: 5.2–16.7) had low-grade squamous intraepithelial lesions (LSIL). For the 362 participants seen during the pilot study, 50.2% (95% CI:45.0–55.5) had LSIL, and 6.3% (95% CI:4.1–9.4) had HSIL. HSIL was not detected during training but it was more often detected among HIV-infected as compared to HIV-uninfected (8% vs. 4%, p < 0.01) during the pilot study.

*Conclusions:* Screening improved with time and experience. However, HSIL has been reported higher in some experienced clinics, suggesting that more on-site monitoring and experience are needed to further improve technique.

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#### Raman spectroscopy (RESpect) for anal intraepithelial neoplasia (AIN) lesions from HIV-serodiscordant couples

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Background: Anal dysplasia is a potentially chronic disease that affects HIV-seropositive and-seronegative men who have sex with men (MSM) and transgender women. Novel approaches to AIN screening could improve healthcare through access to timely care and treatment since appropriate training and equipment are currently required for screening and follow-up. To pioneer new ideas, the foundation for new technology relies on collecting data to design new tools. Recently, Raman spectroscopy (RESpect), a laser-based technology, has identified unique anal tissue fingerprints. We assessed anal tissue for RESpect phenotypes for differences in HIV-serodiscordant couples.

Methods: HIV-serodiscordant couples were enrolled in a clinical study to assess anal biopsy specimens as per IRB guidelines. Anal tissue was flash-frozen and mounted onto aluminum reflective slides which were then subjected to RESpect point scans accumulations. RESpect information was processed using asymmetric least squares to baseline the data and subjected to principal component analysis (PCA).

Results: To date, data from 2 couples showed that PCA distinguishes between HIV+ and HIV- individuals of the couples. In HIV+ individuals, PCA also distinguishes AIN from normal tissue.

Conclusions: RESpect has shown to identify not only AIN amongst all individuals but also suggested there may be a unique HIV effect in the RESpect data from anal tissue. Further work on RESpect could provide groundbreaking information towards the design of a RESpect monitoring instrument to diagnose and follow patients for AIN. Supported in part by R21CA216830 and U54MD007584.

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# Two-years persistence of anal high-risk HPV infections in women living with HIV, results from the EVVA study

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