Early Treatment Reduces Risk of Anal Cancer in People With HIV

Long-awaited results from the ANCHOR study suggest screening to detect precancerous lesions should be part of routine care.

October 8, 2021 By Liz Highleyman

Treating abnormal anal cell changes early can significantly reduce the risk of progression to anal cancer in people living with HIV, according to long-awaited results from the ANCHOR study.

An October 7 press release from the University of California at San Francisco (UCSF) was short on data, but the trial was halted ahead of schedule after an interim analysis showed that early treatment confers a clear benefit.

> HUGE day for anal cancer prevention.
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> We thought we had to wait for 5 more years, BUT the DSMB has stopped ANCHOR study early: treatment of anal high grade dysplasia (mostly w/electrocautery) reduces the risk of anal cancer in folks with #HIV. W????W !!! https://t.co/mB70To58WG
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> — Ina Park (@InaParkMD) October 8, 2021

Anal cancer, like cervical cancer, is usually caused by human papillomavirus (HPV). HPV is among the most common sexually transmitted infections, and most people acquire one or more strains of the virus not long after they become sexually active.

Previous research has shown that people with HIV have more types of cancer-causing HPV and are less likely to naturally clear the virus. What's more, they tend to experience more rapid progression from low-grade cell changes to precancerous dysplasia (known as high-grade squamous intraepithelial lesions, or HSIL) to invasive cancer. Even people on effective antiretroviral therapy with an undetectable viral load and a high CD4 count can still develop anal dysplasia and cancer.

Men who have sex with men are especially susceptible to anal dysplasia and cancer, but women get it too. About half of men and one in five women with HIV have these abnormal cell changes. What's more, HIV-positive gay and bisexual men have an 80- to 100-fold greater risk of anal cancer compared with the general population, according to ANCHOR lead investigator Joel Palefsky, MD, who established the world's first clinic devoted to anal cancer prevention at UCSF in 1991.

Widespread screening using Pap smears and HPV tests, followed by early treatment of precancerous lesions, has dramatically lowered the prevalence and mortality of cervical cancer since the 1950s. But anal cancer is a different story. Although anal cancer is rising among people living with HIV, anal screening is currently not considered part of the standard of care. Some doctors do offer it, but it may not be covered by insurance. Until now, it was not known for sure whether detecting and treating HSIL early would reduce the likelihood of progression to anal cancer.

"We know screening works in cervical cancer," Palefsky previously told POZ. But the balance of benefits and harms is different for cervical and anal cancer. "If a woman has [cervical] HSIL, you can remove a large portion of the cervix. But you can't do that in the anal canal, obviously."

The Phase III ANCHOR (Anal Cancer/HSIL Outcomes Research study; NCT02135419) included 4,446 participants ages 35 and older at 21 sites around the United States. At study entry, volunteers were screened for HSIL using anal Pap smears (cytology) and a technique called anoscopy, in which a magnifying scope is used to examine the anal canal.

Those found to have anal lesions were randomly assigned to either receive immediate treatment or undergo active monitoring without treatment. The most common treatment was electrocautery, which uses an electric current to remove abnormal lesions. Other treatments included infrared photocoagulation (another method of burning off lesions), imiquimod or 5-fluorouracil cream, or surgery in the most advanced cases. Study participants were evaluated every three to six months, and rates of anal cancer were compared between the two groups.

The study showed that removing HSIL significantly reduced the chances of progression to anal cancer, according to the UCSF press release.

"ANCHOR data show for the first time that, like cervical cancer, anal cancer can be prevented even in high-risk populations, such as people living with HIV, who often have HSIL that can be difficult to treat," Palefsky said. "Although the study was performed in people living with HIV, the results

suggest that anal cancer prevention could be similarly possible in other groups known to be at increased risk of anal cancer, including women with a history of vulvar or cervical cancer, men who have sex with men who are HIV-negative, and men and women who have immunosuppression for reasons other than HIV infection."

But the announcement was frustratingly devoid of details. It did not report the number of people who developed anal cancer in each group nor the magnitude of the risk reduction. Palefsky said that he couldn't provide more data as the findings are being prepared for publication. "Hopefully that will come soon," he told POZ.

Nonetheless, the results were considered strong enough that an independent data and safety monitoring board decided to stop the randomized portion of the study years ahead of schedule. This typically happens when the benefits of a therapy are so clear that it would no longer be ethical to continue giving the control group a placebo or no treatment. Thus, people in the ANCHOR monitoring group will now be offered treatment.

So what are the implications for people living with HIV?

"This means people with HIV can now have their insurance cover anal cancer screening with anal Pap smears and high-resolution anoscopy as well as treatment if high-grade lesions are found," said Jeff Taylor, executive director of the HIV+Aging Research Project, a long time advocate who has had anal cancer himself.

"Until now you had to be lucky, or privileged, enough to live someplace with progressive and knowledgeable HIV providers willing to perform these procedures and have insurance that would pay for it," Taylor told POZ. "Now they will be available to all, but the challenge will be getting providers trained to do the high-resolution anoscopy, so there's still work to be done."

Of course, preventing HPV infection in the first place would be even more desirable. The Gardasil 9 vaccine, which protects against nine high-risk HPV types that cause cancer or genital warts, is recommended for adolescents—both girls and boys—at age 11 or 12, with catch up vaccination through age 26. The vaccine is approved for people up to age 45, although by that time most have already contracted HPV. But some individuals (for example, a middle-aged person re-entering the dating scene after a long-term monogamous relationship) may not yet have been exposed to all the HPV types covered by the vaccine and could still benefit.

Click here to learn more about anal cancer.
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Click here for a feature about cancer in people living with HIV.
