

Saving your arse

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HIV is a sneaky bugger. As soon as we think we've got it cornered, other complications emerge. Now, it transpires that even on successful treatment we're still more susceptible to particular cancers. PETER WATTS investigates.

The statistics

In 2007, Australian researchers ¹ [1] reported that they were seeing certain cancers – anal, cervical and [liver](#) [2] A large organ, located in the upper right abdomen, which assists in digestion by metabolising carbohydrates, fats and proteins, stores vitamins and minerals, produces amino acids, bile and cholesterol, and removes toxins from the blood., particularly – occurring more commonly in people with HIV, while others – breast and prostate, for example, were being seen with the same frequency in both positive and negative populations.

Researchers in the United States ² [3] suggest that this may be due to higher rates of coinfection with cancer-causing [viruses](#) [4] A small infective organism which is incapable of reproducing outside a host cell. such as the human papillomavirus (HPV) and hepatitis B or C, as well as due to weakened immune systems and the higher likelihood of high-risk lifestyle factors such as smoking.

The US researchers compared cancer rates in those with and without HIV from 1992 to 2003. While the results suggest a fairly low incidence level of cancer, they did find much higher rates of cancers in people with HIV.

Not surprisingly, AIDS-defining cancers such as Kaposi's Sarcoma (KS) are more common. What is surprising is that 20 per cent of the new cases are of the type of cancer previously not seen in HIV. And highest of these non-AIDS-defining cancers – the one they found 59 times more in people with HIV – is anal cancer.

Richard Hillman from Sydney University thinks the rate is even higher. He has been conducting an anal cancer study among gay men with HIV and believes this group may run up to 200 times the risk of developing anal cancer, compared to the general community.

'About one positive gay man in a 1000 will develop anal cancer each year,' says Dr Hillman.

Between 200 and 300 of this thousand will have significant pre-cancerous anal lesions or dysplasia – a pre-cancerous condition where abnormal cells start to occur in and around the anus. It is difficult to predict which of these cases will progress to anal cancer and there is also the question of what to do.

'The treatments currently available are not well validated and can be quite unpleasant,' he says. So, Richard and his associates are conducting a large study to identify which men are at particular risk of developing anal cancer and to target these men for close follow-up.

In Cairns, Darren Russell has been conducting a screening study on anal health. 'You don't need to be gay or to have had anal sex,' he advises.

Both positive women and heterosexual men also seem at higher risk, though probably not as much as gay men. Positive women, for example, have a seven times higher risk of developing anal cancer than their negative counterparts. They are also at higher risk of cervical dysplasia.

Dr Russell reminds us that the reasons for these risk differences are still being worked out but are most likely related to receptive anal sex and smoking. However, multiple risk factors might be involved.

The cancer does seem more likely in immunosuppressed people, which is why those with HIV are at risk. And CD4

count does not seem to be significant.

HPV and warts

There are more than 200 types of HPV. Types 6 and 11 cause genital and anal warts. Anal and cervical cancer is commonly associated with HPV types 16 and 18. Rarely do the cancer types cause visible genital or anal warts.

However, warts are probably best removed for a variety of reasons. Despite being unsightly, they can bleed and condoms only offer modest protection. This is because HPV can be present anywhere in the anal, genital or groin areas. We also don't know how long warts remain infectious and HPV can be passed on without any visible signs of them.

Several options are available for treating warts, such as freeze-drying in the clinic with liquid nitrogen, or self-applied treatments such as *podophyllotoxin* and imiquimod ointments. More specialised methods such as surgery and electrocautery are occasionally used in extensive or particularly persistent cases.

HPV is very common and most people become infected early on in their sexual life. It is easily picked up and passed on through external and internal breaks in the skin and surface membranes during oral, vaginal or anal sex.

A couple of vaccines are available. However, these only work *before* you first come into contact with HPV. They are of no value once you have already been infected.

Current vaccine programs are highly protective against cervical cancer in women and indicate a similar program should be initiated to prevent anal cancer in gay men.

What you can do

If you have had multiple partners then you've probably been exposed to HPV – both the high-risk types that cause anal and cervical cancer and the low-risk types that cause genital and anal warts. The advice, especially for gay men, is to get checked by your doctor every six months for the presence of HPV-associated warts or signs of skin changes in and around the anus.

Richard Hillman recommends that all men should start taking an interest in their anal health, just as women do for their cervical health related to HPV.

He also stresses that smoking cigarettes significantly increases the likelihood of progression of HPV to anal lesions and cancers, and also the progression to cervical cancer in HIV positive women.

This is yet another reason why everyone with HIV is best advised to quit smoking.

Take anal health off the taboo list and talk about it with your sexual partners and doctor.

Close sexual partners can play a role by checking each other's butt. Look for skin areas that might be different in shape, colour and size. Notice any areas that appear blotchy, inflamed and reddish, or even paler (whiter) than the surrounding skin tissue.

Check inside up to two to three centimetres, just past the entire sphincter ring, by gently prying open the anal ring with your fingers.

If you or your partner see or feel something odd then get it checked out further by your doctor. The earlier any changes are detected the greater likelihood of better treatment outcomes.

Screening and treatment

Incorporate a general anal screening exam into your regular STI check up. Don't feel shy, embarrassed or undignified in asking for this. Anal health is as important as the health of any other body part.

Often a doctor will use a small examining instrument called an anoscope, which is inserted using a small amount of lube. This instrument provides a much closer visual inspection of the lining of your anus. If anything seems suspect your doctor may suggest taking a tissue sample ([biopsy](#) [5]Surgical removal of a piece of tissue from a living subject for microscopic examination to make a diagnosis (e.g., to determine whether abnormal cells such as cancer cells are present).) for further analysis.

While this examination and biopsy testing sounds daunting or confronting it's a fairly routine procedure and may well provide peace of mind.

Don't be unduly concerned that all HPV infection will lead to anal cancer. This is not an epidemic and put in perspective the rates are about the same as prostate and bowel cancer in the general community. However, like cervical cancer, anal cancer is serious.

Low-grade lesions aren't likely to progress further and are often best left alone, kept in check by your doctor.

Highly suspicious lesions may be surgically removed, but this can be quite discomforting and affect quality of life. Invasive surgery and advanced procedures are needed for the high-grade types and cancer itself.

Some specialised clinics are offering anal cytology screening, a process similar to the pap smear, which takes a few surface cells off to be examined under a microscope.

'It is not clear how applicable and reliable cervical screening methods may be to the anus because of its different cell structure,' says Dr Russell.

Studies which will assess the accuracy and value of pap smear (or chap smear) testing are at least a couple years away from completion.

Currently, Australia has only one test for detecting the 13 high-risk strains of HPV, including the high-risk types 16 and 18. It does not look for types 6 and 11 which cause warts, however tests available in Europe and the USA are able to test for these 'lowrisk' strains.

Meantime, British scientists have now designed a new test to detect pre-cancer and cancer cells in the anus.

The test is based on certain DNA proteins called minichromosome maintenance proteins that can detect anal cancer in its early stages. Although this test needs further proving, it is added hope that fewer people will be missed for anal cancer and have to undergo the rigours of radiotherapy and chemotherapy treatment.

To summarise

If you think everyone with HIV or HPV is at risk of anal cancer, don't. While it is of increasing concern, anal cancer does not occur often. When it does, however, it's serious enough that attempts are usually made to remove and kill the cancer through specialised drugs and surgery. Cancer tends to emerge in stages and any early changes might require some ongoing assessment and monitoring by your doctor.

Early detection of anal lesions brings greater hope for better treatment outcomes. However, lack of current understanding of the most effective screening and treatment methods has led some doctors to delay screening their patients for anal lesions. This is mainly because of their concern for the anxiety it may cause their patients when indeterminate lesions are discovered.

Both Drs Hillman and Russell acknowledge that it's now better to know and to do what's possible if treatment is required.

Further research is critical, since anal cancer is now the third most common malignancy in people with HIV.

Researchers and doctors are doing all that they can to find out more and offer the best treatment solutions.

Ultimately, it's up to you to save your own arse: by checking for changes; by talking to your doctor; and by not

smoking.

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REFERENCES

1. Grulich AE, van Leeuwen MT, Falster MO et al, Incidence of cancers in people with HIV/AIDS compared with immunosuppressed transplant recipients: a meta-analysis. *The Lancet* 370(9581): 59-67. July 7, 2007 (Editorial by G Clifford and S Francheschi. *Immunity, infection and cancer. The Lancet* 370(9581): 6-7. July 7, 2007.)

2. Patel P, Hanson DL, Sullivan PS et al (Adult and Adolescent Spectrum of Disease Project and HIV Outpatient Study). Incidence of types of cancer among HIV-infected persons compared with the general population in the United States, 1992-2003. *Annals of Internal Medicine* 148(10): 728-736. May 20, 2008.

- [anal cancer](#)
- [HPV](#)

Links:

[1] <http://napwa.org.au/pl/2009/06/saving-your-arse#one>

[2] <http://napwa.org.au/glossary/term/102>

[3] <http://napwa.org.au/pl/2009/06/saving-your-arse#two>

[4] <http://napwa.org.au/glossary/term/125>

[5] <http://napwa.org.au/glossary/term/413>