

### Pre-cancerous lesions

The overwhelming majority of people who suffer from an anal infection caused by human papillomavirus (HPV) will not develop anal cancer.

Some studies suggest that people with anal HPV (see *InfoVIHtal #40 'Genital warts'*) and with a CD4 count below 200 cells/mm<sup>3</sup> have a higher risk of developing anomalous cells in the anus. Some HPV strains seem to be more likely than others to cause genital cancer, but most HIV-positive gay men are infected with several HPV strains, including both those of high and low risk.

Before cancer develops, cells in the anus will go through a number of changes over a period of many years, and pre-cancerous lesions called AIN (anal intraepithelial neoplasia) may develop. AIN lesions are graded AIN I, AIN II, and AIN III depending on their stage of development.

### Monitoring

Regular sexual health screens which involve an examination of the anus and rectum (called a proctological examination) will facilitate early detection of anal warts and lesions. There is no direct link between visible anal warts and anal cancer. The HPV strains which can cause cancer do not cause wart-like growths to develop. Nevertheless, they can still cause lesions. Regular anal examinations are strongly recommended even if you do not practice receptive anal sex, or if you always use condoms for anal sex. Studies have described cases of men and women with anal warts who had never practised anal sex (or had protected anal sex). In this case, the HPV may have been spread by touch.

If you notice any unusual symptoms in your rectum or anus, you should inform your doctor straight away.

Some HIV specialists are studying the benefits of regularly screening patients with anal HPV for pre-cancerous

cells. This kind of screening involves using a test similar to the PAP (Papanicolau) smear, which is used to detect pre-cancerous cells in the cervix (see *InfoVIHtal #50 Cervical cancer*). Cells are scraped from the lining of the anus (which can be uncomfortable) and are then examined for any signs of abnormality. Anal PAP smears are not 100% accurate. The anus can be examined in greater detail using a method called anoscopy. During this procedure, small tissue samples can be removed (biopsy) from the anus and examined under a microscope in order to detect the presence of potentially cancerous changes in the cells.

### Treatment

Often the immune system successfully clears the HPV infection. Anti-HIV treatment can restore the immune system and improves its ability to fight infections, including HPV. However, this therapy does not have a direct effect on HPV and cases of anal cancer have been reported in people with good CD4 cell counts and undetectable viral loads.

Imiquimod is a cream of external application for the treatment of external genital and perianal warts caused by HPV.

Anal cancer is usually treated aggressively using a combination of chemotherapy and radiotherapy. The cure rate is approximately 60%, but the treatment has considerable side-effects.

Pre-cancerous and cancerous cells can be removed from the anus through surgery. However, in many cases these cells may recur.

It is important to note that anal cancer is rare even in cases of anal infection by HPV. However, any potentially cancerous lesion should be treated as soon as it has been detected, and you should consult your doctor with any related concerns.