

### Cervical cancer

Since 1993, cervical cancer has been classified as an AIDS-defining illness. At the time, this was controversial as some doctors argued that HIV-positive women were no more likely to develop cervical cancer than HIV-negative women.

However, since highly active antiretroviral therapy (HAART) became available, a small increase in the risk of developing cervical cancer has been identified amongst HIV-positive women.

It is worth emphasising that the reason for this increased risk is not the use of HIV treatment itself, but the longer life expectancy of women taking it.

#### Risk factors for cervical cancer

Human papilloma virus (HPV), the cause of genital and anal warts, is the underlying cause of cervical cancer (see *InfoVIHtal #40 Genital warts*). HPV infection is common amongst women with HIV. There are many different strains of HPV, but only a few of these appear to cause cancer. The strains of HPV that cause visible genital warts are not associated with cervical cancer.

Although there is not a specific treatment for HPV, in most cases, the body is able to clear the infection. However, women with HIV are less likely to clear HPV infection naturally, particularly those who have a weak immune system. Nevertheless, it is worth noting that even if potentially carcinogenic strains of HPV persist, they usually do not cause cancer.

Women who became sexually active at a young age or who have had many sexual partners are more likely to have been infected with high-risk strains of HPV.

There is also some evidence that smoking increases the risk of cervical cancer if you have high risk strains of HPV.

#### Cell changes

Before cervical cancer develops, cells in the cervix go through a number of changes over many years. These precancerous lesions are called CIN (cervical intraepithelial neoplasia) and they are graded according to their stage: CIN I, CIN II and CIN III.

#### Detection tests

A cervical screening test (sometimes called a smear test or pap smear) is the standard test for detecting precancerous changes in cells of the cervix. This test involves scraping cells from the lining of the cervix and then examining these samples under a microscope to detect possible precancerous lesions in the cells. All women between 20 and 64 years old are recommended to have regular cervical screening tests.

HIV-positive women should have cervical screening tests more frequently than HIV-negative women. They should have a cervical smear when they are first diagnosed with HIV, six

months later and then, every year.

The cervix can be examined in more detail by using an instrument called a colposcope. At the same time, small samples of tissue can be removed and examined under a microscope to see if precancerous changes in the cells have occurred.

Symptoms of changes to cells in the cervix include bleeding after sex, bleeding between periods and an unusual discharge from the vagina. However, these symptoms usually don't appear until there are precancerous changes, or even until cancer is well developed, so regular cervical screening is strongly recommended.

#### Anti-HIV drugs and cervical cancer

Often the immune system successfully clears infection with HPV. HIV treatment does not have a direct effect on HPV, but it does improve the ability of the immune system to fight infections, including HPV.

#### Treatment for precancerous cells/cervical cancer

The earlier the treatment is provided the better, since it can be very effective if the condition is caught at an early stage.

Precancerous lesions can be treated with topical creams such as imiquimod (only recommended for external genital warts), which is effective against both visible lesions and underlying HPV infection.

Warts and early precancerous lesions can be removed by freezing them with liquid nitrogen or using a laser. Also, they can be removed during a simple surgical procedure.

If lesions are more advanced or cancer develops, it is likely that surgery will be combined with local radiotherapy and chemotherapy. There is some evidence that women who take antiretroviral therapy after treatment for precancerous changes in the cervix and achieve an undetectable viral load are less likely to suffer a recurrence of the condition.

#### Vaccine

A vaccine has recently been approved that provides some protection against the strains of HPV that are associated with the highest risk of developing cervical cancer and another one is in the final stages of development. Its use is recommended for girls before they become sexually active. Studies are ongoing to see how safe and effective the approved vaccine is in HIV-positive women.