- If a lump or other abnormality is seen in the anal canal you may need a biopsy to rule out cancer.

In people at high risk for anal cancer, the anal Pap smear and HRA should be done yearly where facilities exist.

Treatment

Anal pre-cancers (dysplasia)

- Laser therapy
- Application of acid to the abnormal area
- Surgical removal of part of the lining of the anal canal

Anal Cancer:

- Radiation and chemotherapy
- Surgical removal of the tumour may also be done when possible
- If the cancer has already spread more deeply, the anus and part of the rectum may have to be removed.
- Early diagnosis can reduce the need for these treatments

ANAL CANCER

FACT SHEET

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ANAL CANCER

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What is Anal Cancer?

Anal cancer may develop slowly over a period of years. It is one of the most common HIV-associated cancers in gay men

Anal cancer occurs mainly in two places: in the anal canal where the anus meets the rectum and in the skin just outside of the anal opening.

Anal cancer starts as a pre-cancerous condition called anal dysplasia.

Anal dysplasia can progress from low-grade changes to high-grade changes before it turns into cancer.

What Causes Anal Cancer?

Anal cancer is caused by the human papillomavirus (HPV). HPV is a common virus which can be transmitted sexually. Some HPV types cause warts. Other HPV types cause anal and cervical cancer.

Anal cancer can occur at any stage of HIV disease but pre-cancerous changes are more likely at lower CD4+ cell counts.

Risks for Anal Cancer?

It occurs in men and even more commonly in women.

Risk factors:

- Anal receptive intercourse (“bottoming”)
- HIV infection
- Cervical cancer in women
- Cigarette smoking
- Multiple sex partners

Prevention

- Practising safer sex reduces the risk of getting HPV
- Condoms are partially protective
- Stopping cigarette smoking
- Treating HIV with antiretroviral therapy may reduce the risk of getting anal dysplasia
- Anal cancer can still occur despite antiretroviral therapy and high CD4 counts

Symptoms

- There may be no specific symptoms of anal cancer until it is quite advanced
- There may be anal pain, bleeding and discomfort. However, these symptoms are more often associated with other conditions
- When anal cancer has spread, there may be lumps in the groin

Diagnosis

- Anal Pap smears: cells are collected from a swab that was inserted in the anus. Pap smears can help detect pre-cancerous changes.
- Digital anal exam: your doctor places a gloved finger in the anal canal to feel for lumps
- Routine anoscopy is a visual examination of the anal canal using an anoscope with a bright light
- High-resolution anoscopy (HRA) uses a magnifier to provide more detailed views. HRA is not widely available. Sigmoidoscopy and colonoscopy may not adequately examine the anal canal.

- HSIL (High-grade Squamous Intraepithelial Lesion): This result means moderate to severe dysplasia.

Biopsy results

- Normal: There is no evidence of abnormal changes in the sample.
- AIN-1 (Anal Intraepithelial Neoplasia, grade 1): This result means mild or low-grade dysplasia.
- AIN- 2/3 (Anal Intraepithelial Neoplasia, grade 2 or 3): This result means severe or high-grade dysplasia. All or almost all of the cells in the sample may be pre-cancerous.

Treatment

Low-grade lesions are low risk and are generally not treated. They are watched for signs of progression. High-grade lesions probably should be treated, although the best therapy is not known. Treatment options include:

- Laser Treatment or Treatment by IRC (Infra-Red Coagulator): This destroys the lesion with an intense beam of light and heat. It can be uncomfortable and can cause some pain and slight bleeding afterwards. It is done in a clinic or office setting and one treatment may be enough.
- TCA (Trichloroacetic Acid): The lesion is treated by being touched with acid-soaked cotton. Four or more treatments may be needed over several weeks. There is minimal, if any, discomfort.
- Surgery: The lesion is cut out by a surgeon.
- Watch and Wait: Sometimes the dysplasia is too widespread to remove without causing damage to the anus. In this case, your doctor may just observe it with repeat exams over months or years. If cancer does develop, it can be treated very early and with good results.
- Therapeutic Vaccine: This is only an experimental approach but may hold some hope for the future. This vaccine may help to mount an immune response against the lesion and cause it to shrink.

After Treatment

Although anal dysplasia can be treated successfully, people with HIV are at high risk of having it coming back. It is important to follow up with regular monitoring.

Anal Dysplasia and HAART

- Treating HIV with antiretroviral therapy may reduce the risk of getting anal dysplasia
- Anal cancer can still occur despite antiretroviral therapy and high CD4 counts

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ANAL DYSPLASIA

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What is Anal Dysplasia?

Anal dysplasia is a pre-cancerous condition but it is not cancer itself. It refers to an abnormal change (lesion) in the lining (mucosa) of the anal canal. Some low-grade lesions may progress to high-grade lesions. High-grade lesions can progress to cancer. Not all lesions get worse. Some can remain without changing and some may even disappear.

Anal dysplasia occurs mainly in two places: in the "junction" inside the anus (where the anal canal meets the rectum); and in the skin just outside of the anal opening. Severe anal dysplasia in this skin around the anus is also called Bowen's disease.

What Causes Anal Dysplasia?

Anal dysplasia is caused by the human papillomavirus (HPV). HPV is a common virus which can be transmitted sexually. Some HPV types cause warts. These strains do not cause severe dysplasia or cancer. Other HPV types (oncogenic types) cause anal and cervical dysplasia as well as cancers .

Anal dysplasia has been clearly associated with HIV. Anal dysplasia can occur at any stage of HIV disease but is more likely at lower CD4+ cell counts.

Who Gets Anal Dysplasia?

Since anal dysplasia can lead to anal cancer, the two conditions share many risk factors.

Risk factors:

- Anal receptive intercourse ("bottoming")
- HIV infection
- Cervical cancer in women
- Cigarette smoking
- Multiple sex partners

Prevention

- Practising safer sex reduces the risk of getting HPV
- Condoms are partially protective
- Stopping cigarette smoking
- Treating HIV with antiretroviral therapy may reduce the risk of getting anal dysplasia
- Anal cancer can still occur despite antiretroviral therapy and high CD4 counts

Symptoms

There are often no specific symptoms of anal dysplasia.

Anal warts may be associated with lumps in and around the anus, but many warts inside the anal canal produce no symptoms. Anal warts are not dangerous by themselves but do warn that there is an HPV infection.

If dysplasia progresses to advanced anal cancer, there may be anal pain and bleeding. However, these symptoms are not specific to anal cancer and are more often associated with other conditions such as hemorrhoids.

Diagnosis

Regular medical check-ups with anal examinations by your doctor will help detect early cancers.

- Anal Pap smears: dysplasia can be diagnosed in the anal canal with a Pap smear similar to that used to detect cervical cancer in women. For this test a swab is briefly inserted in the anus and cells are collected from the swab. The sample is then examined under a micro-scope.
- Some dysplasias just outside the anus can be seen by spreading the cheeks. Lesions often appear as darkly coloured areas or as moist itchy areas. A biopsy will provide the diagnosis.
- Digital anal exam: your doctor places a gloved finger in the anal canal to feel for lumps. If a lump or other abnormality is seen in the anal canal you may need a biopsy to rule out cancer. A digital exam cannot detect dysplasia because these lesions cannot be felt
- Routine anoscopy is a visual examination of the anal canal using an anoscope with a bright light
- High-resolution anoscopy (HRA) uses a magnifier to provide more detailed views. HRA is not widely available. Sigmoidoscopy and colonoscopy may not adequately examine the anal canal.
- CT scans, barium studies and MRI's do not detect dysplasia

In people at high risk for anal cancer, the anal Pap smear and HRA can be done yearly where facilities exist. This is not yet standard practice in Canada.

Test results

Anal Pap smears may be useful to detect dysplasia but HRA is the most accurate test. Pap smears can sometimes be "normal" when dysplasia is present. The Pap smear can also be read as abnormal but no dysplasia is found on HRA.

The results of tests for anal dysplasia can be described by a variety of medical terms.

Pap smear results

- Normal: There is no evidence of abnormal changes in the cells sampled.
- ASCUS (Atypical Squamous Cells of Unknown Significance): The cells are abnormal, but no definite diagnosis can be made.
- LSIL (Low-grade Squamous Intraepithelial Lesion): This result means mild dysplasia.