# SEXUALLY TRANSMITTED DISEASES AND ANAL PAPILLOMAS

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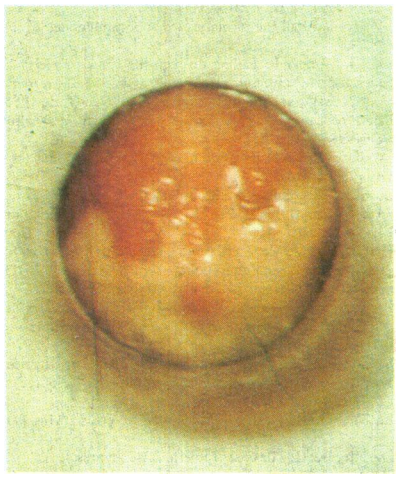
**Common anorectal sexually transmitted infections**

- Gonococcus infection
- Chlamydia infection
- Herpes
- Primary syphilis

There is an increasing incidence of sexually transmitted diseases affecting the anorectal region. This is attributed to an increase in anal intercourse, predominantly among homosexuals, but also some heterosexuals. It is important to consider the possibility of sexually transmitted disease in patients presenting with anorectal disorders and seek the advice of a genitourinary physician in appropriate cases.

## Gonorrhoea



Gonococcal proctitis with considerable purulent rectal discharge.

Gonorrhoea is caused by *Neisseria gonorrhoea*, a Gram negative diplococcus. The organism is spread during anal intercourse and by autocontamination from the vagina in women. An incubation period of five to seven days is followed by proctitis and infection of the anal crypts. Patients with symptomatic disease have pruritus ani, mucopurulent discharge, tenesmus, and bleeding. Disseminated infections may be associated with systemic manifestations including joint pains.

Many people with rectal gonorrhoea do not have symptoms. About a quarter of homosexual men attending screening clinics have evidence of anorectal gonorrhoea.

Proctoscopy shows proctitis, and mucopus can often be expressed from the anal crypts. The anal canal itself is usually spared. Swabs are taken for microscopical examination and culture to confirm the diagnosis.

Infected patients are treated with amoxycillin or, if they are allergic to penicillin, with either ciprofloxacin or spectinomycin. Treatment may start before obtaining positive cultures if there is a strong suspicion of gonorrhoea.

Patients should be screened at two weeks after treatment to confirm eradication of the infection. Sexual contacts should be traced, screened, and treated.

## Anal syphilis

**Characteristics of anal syphilis**

*Primary syphilis*
Anal chancre
Inguinal lymphadenopathy
Lesions infected with spirochaetes

*Secondary syphilis*
Condylomata lata
Foul discharge
Lesions infected with spirochaetes

*Tertiary syphilis*
Rectal gumma
Tabes dorsalis
Severe perianal pain
Paralysis of sphincters

An anal chancre is a common manifestation of primary syphilis. Three quarters of those infected are homosexual men. The chancre appears two to six weeks after exposure during anal intercourse. It may be confused with an anal fissure and when secondary bacterial infection supervenes can cause considerable pain at the anus.

Most patients with primary anal syphilis have inguinal lymphadenopathy, which is rare in patients with anal fissures. Early lesions are teeming with spirochaetes, which are readily shown by dark field microscopy.

Primary syphilitic ulcer at the anal margin. These ulcers are often painful and tender.

The Venereal Disease Research Laboratory (VDRL) assay gives positive results in three quarters of patients with primary syphilis. The fluorescent treponemal antibody absorption test (FTA) gives positive results four to six weeks after infection. The *Treponema pallidum* haemagglutination assay (TPHA) is also useful as a specific confirmatory test.

Secondary syphilis appears two to six months after the primary lesion. Patients develop moist, smooth, warty masses around the anus (condylomata lata) and have a foul discharge and pruritus. The warts are less keratinised, smoother, flatter, and moister than anal papillomas. These lesions are highly infectious as spirochaetes are abundant in the discharge. All three serological tests for syphilis usually give positive results.

Tertiary syphilis is now rare. Rectal gumma may be confused with malignancy and patients with tabes dorsalis may have severe perianal pain and functional problems due to paralysis of the sphincters.

Patients with syphilis are treated with intramuscular penicillin. Those allergic to penicillin are treated with tetracycline or erythromycin. Follow up serological tests are repeated periodically for at least a year after treatment to confirm eradication of the infection.

## Chlamydia infection

**Symptoms of acute proctitis**

- Pruritis ani
- Anal discharge
- Anal pain
- Rectal bleeding
- Diarrhoea

*Chlamydia trachomatis* infection is an important cause of proctitis among those who practise anoreceptive intercourse. Many such people harbour subclinical infections. Symptoms include a mucoid or blood stained discharge, pain, tenesmus, and fever. Sigmoidoscopy shows a non-specific proctitis and many have inguinal lymphadenopathy.

The pathogen is intracellular and difficult to show even on culture of rectal biopsy specimens. The cell culture and direct immunofluorescence assay are the most sensitive tests for chlamydial infection.

Infected patients and those with a strong likelihood of chlamydial infection are treated with tetracycline or erythromycin or a prolonged course of vibramycin. A small number of patients develop rectal strictures; they rarely require surgical treatment.

## Herpes simplex virus

Anal herpes. The external vesicular lesions are characteristic of primary anorectal herpes simplex.

Herpes simplex virus infection is common among homosexual men and is an important manifestation of HIV infection. Chronic mucocutaneous herpes simplex virus infection is considered diagnostic for AIDS. Ninety per cent of anal infections are due to herpes simplex virus type 2 and 10% to type 1. Symptoms develop one to three weeks after anal intercourse and include burning, mucoid or bloody discharge, and constitutional symptoms such as malaise and fever. Examination reveals vesicles, pustules, and shallow ulcers around the anus. Sigmoidoscopy shows an ulcerating proctitis. The lesions are usually extremely sore, precluding examination without an anaesthetic.

Cytological scrapings may show the typical intranuclear inclusion bodies and multinucleate giant cells. Infection can be confirmed by viral culture and immunofluorescent staining of vesicular fluid.

Patients are treated with oral or intravenous acyclovir depending on the severity of the illness. Treatment is continued until all the mucocutaneous surfaces have healed.

## HIV

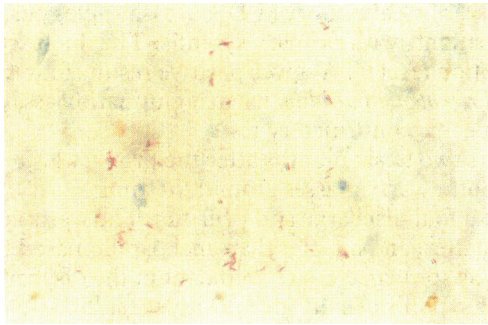
**Proctocolitis associated with HIV and AIDS**

- Cytomegalovirus
- Cryptosporidium
- Isosporiasis
- *Mycobacterium avium-intracellulare*
- Other pathogens: *Shigella* spp, *Campylobacter* spp, *E Histolytica*

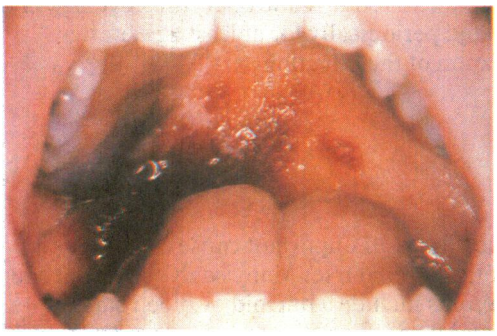
Many patients with HIV infection have anorectal problems which commonly present before diagnosis of AIDS.

*Cytomegalovirus*

Cytomegalovirus is a common secondary infection in patients with AIDS. The most important coloproctological manifestation is ileocolitis, which affects 10%. Patients present with severe diarrhoea and constitutional disturbances. They may have perianal ulcers and typically have ulcerating proctitis. Biopsy specimens of ulcers are taken to look for cytomegalic intranuclear inclusion bodies and for viral culture. Histological examination may show characteristic cytomegalovirus inclusion bodies. The condition is easily confused with ulcerative colitis or Crohn's disease.



The presence of acid fast bacilli in a stool specimen is helpful in the diagnosis of *Mycobacterium avium-intracellulare* infection.



Kaposi's sarcoma of the palate. Many patients will have gastrointestinal involvement, which is often asymptomatic.

**Investigation of proctocolitis**

- Perform stool microscopy and culture
  —For protozoa and bacteria (that is, with acid fast staining for *Cryptosporidium* spp and atypical mycobacteria)
- Take rectal specimens
  —For viruses and signs of other sexually transmitted diseases (for example, herpes simplex)
- Perform sigmoidoscopy and rectal biopsy
  —For cytomegalovirus and Kaposi's sarcoma

When severe, patients may have bleeding or perforation of an ulcer, which carries a high risk of death.

Ganciclovir, an antiviral agent, is currently the best available treatment for cytomegalovirus infection. Foscarnet may also be used. Patients requiring surgery for bleeding or perforation have a poor prognosis. Anastomotic complications are high, and ileostomy with a Hartmann's pouch or mucus fistula are the preferred options after a bowel resection.

*Cryptosporidiosis*

Cryptosporidium may cause life threatening colitis in patients with AIDS. It causes severe enterocolitis with profuse, often haemorrhagic, diarrhoea. Oocytes may be shown in rectal biopsy specimens. Patients require resuscitation, but a specific antiparasitic treatment is not yet available.

*Isosporiasis*

Isosporiasis is another opportunistic infection, which causes enterocolitis with diarrhoea, vomiting, fever, and abdominal pain. The diagnosis is made by a modified fast acid stain of fresh stool. The infection responds well to antiprotozoal treatment.

*Mycobacterium avium-intracellulare*

Ileocaecal infection with *Mycobacterium avium-intracellulare* may present as diarrhoea with abdominal pain. The organisms are resistant to most conventional antituberculous treatment. Some patients develop considerable mesenteric lymphadenopathy, which may be sufficient to cause bowel obstruction.

*Other enteric infections*

Other enteric infections, such as with *Entamoeba histolytica, Shigella* spp, and *Campylobacter* spp, can cause proctocolitis and may be acquired through the oral-anal route.

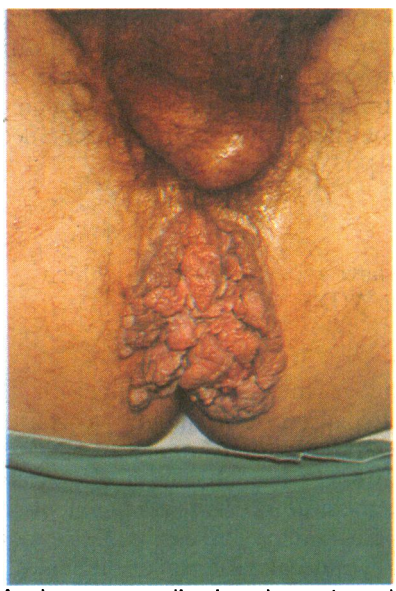
*Opportunistic tumours*

Kaposi's sarcoma affecting the gastrointestinal tract may present with rectal lesions, causing bleeding and diarrhoea. Diagnosis may be confirmed by sigmoidoscopy and biopsy.

*Anorectal surgery*

Asymptomatic patients with HIV infection tolerate colorectal surgery well, but aggressive surgery should be limited as much as possible in symptomatic patients (CDC III or IV).

## Anal papillomas



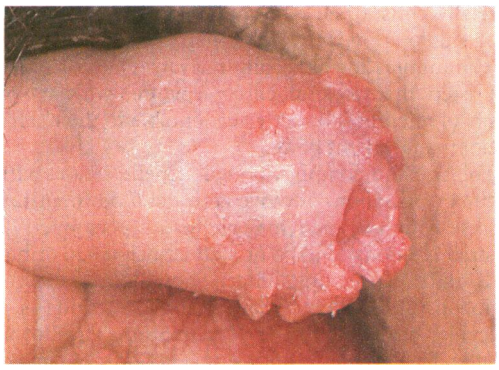
Anal warts extending into the anal canal.

Anal papillomas are relatively common and are increasing in incidence. They are believed to be of viral origin, being caused by infection with human papilloma virus, notably types 6, 16, and 11. There is an increased incidence among homosexual men who practise anoreceptive intercouse, suggesting a venereal mode of transmission. However, anal papillomas also arise in the absence of anal sexual contact among heterosexual men and women.

The papillomas appear as white, pink, or grey lesions around the anus and perineum and inside the anal canal. There may be associated lesions on the penis and vulva. They vary greatly in number and extent from a few small scattered papillomas to bulky lesions without discernible intervening skin. The symptoms vary accordingly; they include itching, discomfort, discharge, and bleeding. Many people with anal papillomas do not have any symptoms.

They can be self limiting and resolve spontaneously after several years, perhaps owing to an effective host immune response.

The lesions are usually obvious on inspection of the perineum. Proctoscopy should be performed systematically to identify lesions within the anal canal which may require treatment. Many patients will have other anogenital sexually transmitted diseases and so all patients should be fully screened for other sexually transmitted diseases.



Genital warts. Secondary spread to the anal region is not uncommon.

*Treatment*

Several different methods of treatment have been described and should be adapted to the individual patient.

Repeated application of chemical agents such as podophyllin is suitable for small numbers of polyps outside the anal canal. Warts persisting after a month are unlikely to respond to further applications.

Persistent and more extensive warts are treated by surgical excision or ablation by diathermy. Infiltration of the affected area with a weak solution of adrenaline helps show the individual lesions, which can be picked off with a fine scalpel, preserving the intervening skin. Coagulation by using diathermy or laser is also effective but causes greater discomfort afterwards.

Recurrence is common so it is important to treat coexistent genital lesions and sexual partners. Advice about barrier contraception should be given where appropriate.

The photographs were produced by the department of medical illustration, Salford Health Authority, and the department of medical illustration, Manchester University.

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# How to implement a no smoking policy

Pamela Taylor

Implementing a no smoking policy at work is all about successfully managing change. The steps to follow look deceptively simple on paper—so bear in mind it is people (employees) we are talking about and the need to change people's attitudes and behaviour at work.

An increasing number of organisations are introducing workplace no smoking policies: some are pushed into it by their employees, some managements decide to initiate a policy, while others finally get around to rationalising a conflicting series of voluntary codes and obligatory regulations. In a major survey of employers almost 60% of respondents indicated smoking was their highest health promotion priority.[1] Most organisations have some form of restrictions on smoking somewhere on their premises. Mainframe computers have had the right to breathe smoke free air for over 20 years, staff handling food have been used to grabbing a quick puff in the toilets rather than in the kitchens, and nobody expects to smoke around a toxic chemicals area.

In the United Kingdom the majority of the population do not smoke and many people choose to avoid exposure to environmental tobacco smoke. The workplace is one of the last remaining areas where many non-smokers still cannot avoid others' tobacco smoke. Pressure from employees has certainly played its part in encouraging management to introduce policies, but some employers have taken the initiative themselves, either in an attempt to enhance their corporate image or in an attempt to pre-empt any future legal requirements based on existing health and safety regulations, European Community regulation, and the law of negligence. The introduction of a well planned no smoking policy with careful consultation and presentation can be seen by employees as demonstrating management's commitment to the health, safety, and welfare of its staff. Managing organisational change well has its spin offs in improved internal communications and improved staff morale.

## Voluntary codes?

It is pointless to raise the issue of smoking at work, risk antagonising employees, only to implement something which is clearly labelled "this code need not apply to you." Years of rows, arbitration, and management intervention await you based on continuing conflict and misunderstanding in the absence of a formal written policy. A voluntary code is no substitute for an agreed and properly implemented policy.

## Reasons for introducing a policy

### HEALTH HAZARDS

You will know of the health hazards associated with environmental tobacco smoke. Exposure causes eye irritation, headache, cough, sore throat, dizziness, and nausea. People with allergies and respiratory and heart ailments can also be seriously affected. Besides the acute effects of eye and throat irritation, exposure to tobacco smoke increases the risk of lung cancer and possibly of cardiovascular disease in non-smokers. As for the smokers themselves, about 81% of lung cancer deaths, 35% of all other cancers, and over 76% of cases of chronic bronchitis and emphysema are attributable to tobacco use, as are some 15-20% of deaths from coronary heart disease and stroke. The combined effect of smoking and occupational hazards shows there are significant differences in morbidity between smokers and non-smokers in many occupations and that the interaction of the two types of hazard increases the risk of many diseases.[2]

### THE LAW

Environmental tobacco smoke is a health hazard. Employers have a duty to protect the health of employees, and employees have a duty to protect the health of their work colleagues. Smoking in the workplace is a health and safety issue, and employers are required by statute law[3] (*a*) to protect their staff

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