The rectum as viewed by the venereologist*

R R WILLCOX
From the Department of Venereology, St Mary's Hospital, London

SUMMARY About 2-2½ million people do, or will repeatedly, participate in ano-rectal sexual intercourse in Britain alone. The anus and the rectum of these individuals are thus vulnerable to all the sexually transmitted diseases (except trichomoniasis). Male homosexuals appear to be more prone to these conditions than female heterosexuals, possibly because a large minority is indiscriminately promiscuous. Over the last 20 years homosexually acquired infections—particularly syphilis—have increased in Britain; these are now more readily admitted to because of changes in the law and in public opinion. The frequent changes of sexual partner among male homosexuals is the most notable epidemiological factor in the spread of venereal disease.

Introduction

The complexity and variety of the sexual act is shown in the figure. The anus and rectum of homosexual women are at little risk of venereal infection, but in some heterosexual women and nearly all homosexual men, being recipients of the male organ, the risks are much greater.

Estimates of numbers of wholly homosexual men vary, but 4-5% is a common figure. If related to the 27·2 million men of the 1978 population of 55·8 millions in the United Kingdom this would suggest there are at least 1·1-1·4 million British homosexual men who actually do, or are potentially likely to, use either their own rectum or that of another person for sexual gratification.

Among heterosexual men the number of rectal users is known to be high among male patients attending venereal disease clinics. In one investigation 25-34% of such patients in Chicago, USA, and Kingston, Jamaica, had had heterosexual rectal coitus at least once, while in a study of female gonorrhoea contacts in London 17% had had rectal coitus within the previous three months.

Data for the population at large are more scanty, although in one study the figure of 3% has been mentioned. If a figure of 2% was applied to the 28·6 million women in the United Kingdom, 572 000 would have—or might have sometime in the future—anal intercourse. If a similar figure was applied to the remaining 25·8-26·1 million heterosexual men this would imply a further 516 000-522 000 men. Thus, if the basic assumptions are correct, this would amount to a total of 2-2½ million actual or potential rectal users in the United Kingdom. This may be regarded as the lowest estimate. In the United States the number of habitual and occasional homosexual men has been estimated at 30 million.

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Address for reprints: Dr R R Willcox, Tideway, Lonsdale Road, London SW13

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The anus and rectum might, therefore, be expected to bear the brunt of much venereal disease. Although for some years now the rectum has been officially recognised as a genital organ by the Department of Health and Social Security (which requires the statistical classification of gonococcal and nongonococcal proctitis as genital infections) an increased awareness of this possibility is nevertheless required by both the public and the medical profession.

Gonococcal infections of the rectum

WOMEN
Rectal gonorrhoea in women was described in the 1930s and was diagnosed in 30-55% of those with genital gonorrhoea^5 by smear^6 and also sometimes by culture. It was largely asymptomatic and persisted for some months without (and even with) some local treatments. In the 1930s and 1940s the accepted mode of infection of the female rectum with gonorrhoea was secondary to genital infection, since gonococcal pus contaminated the anus and the normal eversion of the anus during defecation allowed the terminal rectum to be infected as it retracted. Other modes of infection listed by Martin in 1935 included the wearing of tight undergarments, contamination of the anus with infected urine, the partial expulsion and retraction of a faecal mass (especially in constipated women), the backflow of a vaginal douche, contamination of rectal or vaginal specula or dilators and rectal thermometers, and the insertion of a suppository with infected fingers. All of these theories preceded that of peno-anal coitus and associated rectal disease.

In the early 1950s Jensen found that 40% of patients with rectal gonorrhoea questioned in Copenhagen admitted to rectal coitus and noted that a more "biological" mode of infection than those previously considered seemed "rather foreign to the Anglo-American trend of thought." This trend largely persisted through the 1960s, when it was categorically affirmed that rectal gonorrhoea in women was not due to "unnatural sexual practices" and has been widely prevalent until the present time.

MEN
Similarly, there was a reluctance to accept rectal infections in men, although Harkness, in 1948, had described 168 cases of primary gonococcal proctitis (the majority with few or no symptoms) resulting from sodomy, which he considered was much more frequent than generally supposed. In the same year Nicol stated that rectal gonorrhoea, while common in women, was rare in men; three years later McLachlan affirmed that such infections in men might follow the rupture of a prostatic abscess, an abscess of Cowper's gland, or a posterior periurethral abscess, or result "less frequently from sodomy." A decade later, however, the first evidence of change occurred in the West End of London. In 1962, at the West London Hospital, 6-9% of gonococcal infections were found in homosexuals; two years later the figure had increased to 15-5% (about half being ano-rectal infections), with possible increases to come, while similar findings were noted at St Mary's Hospital.

In a more recent study by the British Co-operative Clinical Group of 36 242 cases of gonorrhoea in 1971, the respective percentages of infections which were acquired in Wales, Scotland, and English clinics outside London were 4-0, 4-1, and 4-6% respectively; but higher figures of 7-7% for the London clinics outside the West End and of 27-6% for five clinics in the West End were by then apparent.

A further study of 33 826 cases in 1977 showed 5-9% in Northern Ireland (not previously studied), 6-0% in English clinics outside London, 6-2% in Scotland, and 7-3% in Wales. In London clinics outside the West End the figure was now 8-8% and in the five West End clinics 28-7% (table I). Although only 30-4% of the total infections in Britain were treated in London (10 296 of 33 826), no less than 61-5% of the homosexually acquired infections (2266 of 3687) were encountered in the capital.

Furthermore, while there was a decrease of 2554 (7-8%) of heterosexually acquired infections between the two studies there was a rise of 138 (3-9%) of those contracted homosexually, most of which were ano-rectal infections (table II).

Syphilis and the rectum

LATE SYPHILIS
At the turn of the century syphilis was about the only venereal disease listed as affecting the rectum and then only indirectly in the rectal crises of tabes dorsalis and in terms of gummatous late syphilis. However, as the various manifestations of lymphogranuloma venereum (including inflammatory stricture of the rectum) were brought together as one entity in the mid-1930s, for the next decade the subject of syphilis of the rectum was confused by the expansion of knowledge of this new disease. It gradually became evident that practically all, if not all, of so-called tertiary syphilis of the rectum was in fact lymphogranuloma venereum, albeit occurring in patients with latent syphilitic disease.
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### TABLE I Homosexually acquired gonococcal infections

<table>
<thead>
<tr>
<th>Area</th>
<th>1971 Total infections</th>
<th>1977 Total infections</th>
<th>Homosexually acquired</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
<td>No</td>
</tr>
<tr>
<td>England</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50 000 or less</td>
<td>1102</td>
<td>57</td>
<td>5%</td>
</tr>
<tr>
<td>50 001-100 000</td>
<td>3379</td>
<td>168</td>
<td>5%</td>
</tr>
<tr>
<td>100 001-500 000</td>
<td>8852</td>
<td>495</td>
<td>5%</td>
</tr>
<tr>
<td>500 001 plus</td>
<td>6590</td>
<td>202</td>
<td>3%</td>
</tr>
<tr>
<td>Total outside London</td>
<td>19 923</td>
<td>922</td>
<td>4-6</td>
</tr>
<tr>
<td>London</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outside West End</td>
<td>4823</td>
<td>373</td>
<td>7-7</td>
</tr>
<tr>
<td>5 West End clinics</td>
<td>582</td>
<td>2095</td>
<td>27-6</td>
</tr>
<tr>
<td>Total London</td>
<td>12 405</td>
<td>2468</td>
<td>19-9</td>
</tr>
<tr>
<td>Total England</td>
<td>32 328</td>
<td>3390</td>
<td>10-5</td>
</tr>
<tr>
<td>Scotland</td>
<td>2822</td>
<td>115</td>
<td>4-1</td>
</tr>
<tr>
<td>Wales</td>
<td>1092</td>
<td>64</td>
<td>4-0</td>
</tr>
<tr>
<td>N Ireland</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>Total Britain</td>
<td>36 242</td>
<td>3549</td>
<td>9-8</td>
</tr>
</tbody>
</table>

ND = no data

### TABLE II Homosexual infections in relation to decreased numbers of gonococcal infections

<table>
<thead>
<tr>
<th>Type of infection</th>
<th>1971</th>
<th>1977</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Penile</td>
<td>1945</td>
<td>1904</td>
<td>-41</td>
</tr>
<tr>
<td>Ano-rectal</td>
<td>1604*</td>
<td>1724*</td>
<td>+122</td>
</tr>
<tr>
<td>Oral only</td>
<td>ND</td>
<td>57</td>
<td>(+57)</td>
</tr>
<tr>
<td>Total homosexual</td>
<td>3549</td>
<td>3687</td>
<td>+138</td>
</tr>
<tr>
<td>Total heterosexual</td>
<td>32 693</td>
<td>30 139</td>
<td>-2554</td>
</tr>
<tr>
<td>Total cases</td>
<td>36 242</td>
<td>33 826</td>
<td>-2416</td>
</tr>
</tbody>
</table>

* % of 1971 infections
† 45-2% of all homosexual infections
‡ 46-8% of homosexual infections
ND = no data

**EARLY SYPHILIS**

Osler, in 1897, while admitting that oral chancres arose as a rule from “improper practices,” made no reference to rectal lesions. Stokes and his colleagues in 1945, however, gave an excellent description of anal chancres, “which usually resulted from pederasty,” but chancres of the lip, gum, tonsil, nasal septum, finger and hand, and skin took precedence. Others considered that these usually arose from the “ordinary osculatory salute” and the “baiser d’amour”.

As with gonorrhoea, the first impact of increasing numbers of recognised ano-rectally acquired infections with syphilis was in London. Between 1932 and 1960 only 60 cases were seen in the outpatient department of St Mark’s Hospital, but within a few years in several venereal disease clinics the percentage of infections with early syphilis which were homosexually acquired ranged between 14 and 79% with a marked recent increase in the West End.

The investigations of the British Co-operative Clinical Group in 1971 and in 1977 also concerned primary and secondary syphilis. In 1971, when 924 such cases were studied, the percentages of infections believed to have been homosexually acquired were consistently higher than those for gonorrhoea—9.5% for Wales, 13.5% for Scotland, and 25.1% for England (excluding London), and 37.2% for London (excluding the West End) and 73.3% for the five clinics in the West End.

By 1977, when 1363 cases were studied, the percentages of homosexually acquired infections in Wales, Northern Ireland (not previously included), and Scotland were 14.0, 22.2, and 32.4% respectively while in England alone (excluding London) (as in Scotland) it had more than doubled to 52.2% (table III). In London (excluding the West End) the figure was 37.9% and in the five West End clinics as high as 76.9%.

The increase in homosexually acquired infections has affected all areas. Even in English towns of less than 50 000 population the percentage of homosexually acquired infections had risen from 9.5% in 1971 to 43.5% in 1977, when only 46.7% of homosexually acquired infections in Britain (344 of 736) were treated in London compared with 74% (290 of 392) in 1971 (table III).

The homosexuals have made a big impact on trends. Of the increase of 439 cases between the two studies, 21.6% was accounted for by infections in homosexuals while no less than 78.4% of the increase was due to homosexually acquired infections (table IV).
Other STDs and the rectum

BACTERIAL DISEASES

Group B β-haemolytic streptococci may affect the anus and surrounding skin in both homosexuals and heterosexuals.

Ano-rectal infection with Neisseria meningitidis is, however, significantly more frequent in homosexual men than in heterosexual women; the more common practice of oro-anal sexual contact among male homosexuals is a likely factor.

Donovansiosis (granuloma inguinale) affecting the skin around the anus is nearly always a consequence of passive pederasty. In a review of 48 anal cases in 1958, 44 patients admitted to this practice. The causative organism, a Gram-negative bacterium, has been considered to be a faecal pathogen, which may be transferred from one individual to another but may also result in autoinoculation of the same person if transferred from the bowel to the anal skin.

A higher incidence of shigellosis has been noted among those who practise oro-genital and oro-anal sex, especially homosexual men and those who adopt so-called "alternative life styles". Indeed typhoid fever has been reported to be transmitted in this way.

CHLAMYDIAL DISEASES

Since its first recognition as a clinical entity inflammatory stricture of the rectum due to lymphogranuloma venereum was regarded as of venereal origin; it was noted that prostitutes were particularly vulnerable, but it was at first by no means generally related to sodomy. Indeed, although numerous authors have emphasised the role of pederasty in this condition even some recent reports have been divided in this respect. Nevertheless it has been recommended that, on the basis of a high incidence of positive results in the Frei and complement-fixation tests on patients with a present or past history of peri-rectal abscess or fistula-in-ano especially in male homosexuals, lymphogranuloma venereum must be considered in the differential diagnosis of these conditions.

Non-specific proctitis in men (usually diagnosed when pus cells but no gonococci are found in the rectum) is a relatively common condition in sexually transmitted disease clinics, although it is grouped with nongonococcal urethritis as non-specific genital infection in the official statistics. Chlamydia trachomatis can be isolated in some such cases, and these infections can be considered to be common in homosexuals.
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FUNGAL DISEASES
Candidosis not infrequently affects the rectum of both sexes; this does not usually result from sexual intercourse but from the taking of antibiotics. Rectal burning and irritation, the then so-called "ano-rectal syndrome," was first described after the ingestion of tetracyclines. Moniliasis also affects the skin of the perianal region and nates.

PARASITIC DISEASES
Scabies can be contracted no less easily during homosexual than heterosexual intercourse, although pediculosis pubis would be expected to have a heterosexual bias. Infestation with threadworms (Enterobius vermicularis) has been described in homosexual pairs.

PROTOZOAL DISEASES
The commonest sexually transmitted protozoal pathogen, Trichomonas vaginalis, seems not to flourish in the rectum. Amoebiasis, on the other hand, may be manifested by peri-anal and genital ulceration in areas where the condition is endemic. It may also be passed during homosexual practices, particularly oro-anal contact, and in non-endemic areas like New York City most cases may be homosexually acquired. Cases of giardiasis similarly transmitted have also been reported.

TRAUMATIC CONDITIONS
Foreign bodies no less bizarre than those occasionally found in the vagina are sometimes recovered from the rectum, and severe injuries, even fatalities, have occurred after the insertion of bottles and other hard objects. The author’s experience has mainly been associated with vegetables, including a large Spanish onion in the vagina and a half-peeled cucumber in the rectum.

More recently, so-called "social injuries of the rectum" have included cases of mucosal laceration and bleeding, suspected intra-peritoneal perforation, and extensive injury to the sphincter resulting in complete anal incontinence, which usually occurs in more experienced homosexual men under the influence of drugs who have practised "fist fornication".

VIRAL DISEASES
The large majority of patients of both sexes with anal warts (condylomata acuminata) admit to anal intercourse and this association was well known in Roman times, when they were known as figs. As penile warts may often be found in sexual contacts of those with anal warts it has been suggested that the condition is not necessarily sexually transmitted but could conceivably result from carriage of the virus in the intestinal tract with subsequent transfer to the anal region during anal intercourse in a manner similar to that suggested for granuloma inguinale.

The virus of herpes simplex may cause peri-anal vesicles as well as involvement of the rectal mucosa, causing severe rectal pain, tenesmus, diarrhoea, and constitutional symptoms severe enough to warrant admission to hospital. Both genital and anal herpes may occasionally result in retention of urine with localised neurological signs.

Another disease commonly transmitted by sexual intercourse is viral hepatitis. Since first reports indicating a 10-fold greater carriage rate of Australia antigen in homosexual than in heterosexual patients attending STD clinics, several workers have found a high percentage of homosexuals among patients with hepatitis B infections. In parts of some cities—for example, New York—most infections with all forms of viral hepatitis in some areas are homosexually acquired. The precise mode of infection with the hepatitis B virus in these cases remains uncertain but both men and women have a higher rate of detection of antigen or antibody according to the number of previous sexual partners.

Discussion
The practice of anal intercourse is of long standing. Peruvian pottery indicates that this type of activity was well known in ancient times. Attitudes to it have varied at different periods and in different societies, and a considerable change in attitude has occurred in recent decades.

While the very considerable increase of recognised sexually transmitted diseases which are homosexually acquired is obvious, much of it could well be due to a greater freedom of homosexuals to discuss their infections as a result of a relaxation of the laws regarding homosexuality in many countries. Just over 20 years ago, Marmell in New York City wrote, "Considering the attitude of Western civilizations towards homosexual practices, it is understandable that some patients should be unwilling to admit pederasty. Natural reticence may be involved, but fear of the police, fear of the army courts martial, fear of loss of job or prestige, fear of being branded a 'security risk,' amongst other factors, are powerful and, at times, insurmountable deterrents to an admission of homosexuality."

Today, with relaxation of the laws, the freedom to speak is now much greater and is indeed demanded. The term "gay bowel syndrome" has been coined for the variety of rectal conditions presenting to the proctologist including, in descending order of frequency, condylomata acuminata, haemorrhoids, non-specific proctitis, fistula, peri-rectal abscess,
anal fissure, amoebiasis, benign polyps, viral hepatitis, gonorrhoea, syphilis, ano-rectal trauma and foreign bodies, shigellosis, rectal ulcers, and lymphogranuloma venereum, which, although by no means exclusive to homosexuals, are found more frequently in this group.48

The most notable epidemiological factor in the spread of sexually transmitted diseases among male homosexuals is the high frequency of partner change, a sizable minority of the group repeatedly making their casual contacts in parks, public toilets, baths, and other public places. A moderately active homosexual may easily have contact with 100 different partners a year, often from a variety of different countries, both at home and abroad. In one series 30% had female contacts as well.49

References

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