national probability sample survey

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HIV and circumcision: new factors to consider

Kebaabetswe *et al* obviously believe the conventional wisdom that heterosexual sex is the major vector for the transmission/reception of HIV, and that male circumcision is an effective deterrent to infection.[1] Based on that belief, they have constructed an elaborate and impressive study of the acceptability of circumcision as a prophylactic measure in Botswana. Furthermore, they argue for a programme of neonatal circumcision in Botswana in the hope of reducing the HIV infection rate 15 years later.[1]

Discussion

It has been believed since about 1988 that heterosexual coitus accounts for 90% of the HIV infection in Africa.[2 3] Many studies do argue that circumcision can reduce the transmission of HIV through heterosexual coitus. The quality of these studies has been criticised for their methodological flaws, including their failure to control for numerous confounding factors.[4 5]

Gray *et al* found that transmission by coitus "is unlikely to account for the explosive HIV-1 epidemic in sub-Saharan Africa."[6] It now appears that these studies have not accounted for the largest confounding factor of all—iatrogenic transmission of HIV. Earlier this year the *International Journal of STD & AIDS* published a trilogy of articles.[3 7 8] These articles strongly argue that unsafe healthcare practices, especially non-sterile injections, not heterosexual intercourse, are the principal vectors by which HIV is transmitted. A programme of mass circumcision would be ineffective against iatrogenic transmission of HIV through unsafe health care.

Heterosexual transmission of HIV that one sees in Africa also cannot explain the incidence of HIV in children.[3 9]

Circumcision has some little known effects that may promote rather than deter HIV infection. The human foreskin has physiological functions designed to protect the human body from infection. The sub-preputial moisture contains lysozyme[10]—an enzyme that attacks HIV.[11] Circumcision destroys this natural protection.

Circumcision removes erogenous tissue,[12] desensitises the penis,[13] changes sexual behaviour, and makes males more likely to engage in unsafe sex practices.[14] Circumcised males, therefore, are less willing to use additionally desensitising condoms.[5]

Male circumcision produces hardened scar tissue that encircles the shaft of the penis. The scar scrapes the inside of the partner's vagina during coitus and, therefore, may enhance the transmission/reception of HIV.

A programme of mass circumcision would expose African males to unsafe genital cutting,[4] would destroy the natural protection of the foreskin,[10] would not be effective against iatrogenic unsafe health care,[4] would divert scarce medical and social resources from measures of proved effectiveness,[5] and, therefore, is likely to increase the transmission of HIV.[5]

The proportion of HIV infection attributable to heterosexual intercourse has been placed at 90%.[9] Gissellquist and Potterat now estimate the proportion attributable to heterosexual intercourse at only about 30%[8]—only a one third of the previous estimate.

Circumcision has not yet been shown to be an effective deterrent against HIV infection.[5] The Council on Scientific Affairs of the American Medical Association says that "circumcision cannot be responsibly viewed as 'protecting' against such infections."[15] The Task Force on Circumcision of the American Academy of Pediatrics identifies behavioural factors, not lack of circumcision, as the major cause of HIV infection.[16]

The article by Kebaabetswe *et al* seems to show a strong cultural bias on the part of the authors in favour of circumcision. This may be due to their desire to preserve their culture of origin.[17]

Bioethics and human rights

Finally, we would like to address the legal and ethical issues. As noted above, male circumcision excises a large amount of functional healthy erogenous tissue from the penis.[12] It is a clear violation of the basic human right to security of the person.[18]

Several authorities report that circumcision degrades the erectile function of the penis.[19 20] Circumcision, therefore, must be regarded as degrading treatment. Degrading treatment is an additional violation of human rights.[21]

The leading international statement of medical ethics is the European Convention on Human Rights and Bioethics.[21] Article 20(1) prohibits non-therapeutic tissue removal from those who do not have the capacity to consent. Children have a right to the protection of the security of their person[18 22] and to protection from degrading treatment.[21 23] Circumcision would violate those human rights. Doctors must respect patient human rights.[24] Prophylactic circumcisions ethically may not be carried out on minors. Circumcisions, therefore, would have to be limited to adult males who legally may give informed consent.

Political factors

Ntozi warns:

> It is important that, while circumcision interventions are being planned, several points must be considered carefully. If the experiment fails, Africans are likely to feel abused and exploited by scientists who recommended the circumcision policy. In a region highly sensitive to previous colonial exploitation and suspicious of the biological warfare origin of the virus, failure of circumcision is likely to be a big issue. Those recommending it should know how to handle the political implications.[25]

Approval of circumcision by the surveyed Botswana people apparently is based on their belief that circumcision is efficacious in preventing the spread of HIV. If circumcision fails to control HIV, there would be disillusionment and anger. African males would have sacrificed their erogenous tissue for a false hope of preventing HIV infection. There is no evidence that Kebaabetswe *et al* have considered the political issues that would arise if a circumcision experiment should fail.

Conclusion

Kebaabetswe *et al* propose the universal circumcision of male children in Botswana. They accept without question that HIV is primarily sexually transmitted in Africa by heterosexual coitus and that circumcision reduces or prevents the transmission of HIV[1]; however, medical authorities do not accept the evidence of this.[4 5 15]

Kebaabetswe *et al* propose to provide in-hospital circumcision of male children in Botswana.[1] However, there is already a substantial incidence of infection among children in South Africa as a result of iatrogenic infection from non-sterile injections, etc.[2 9] They have not shown that safe, aseptic circumcisions can be delivered in Botswana. A programme of mass circumcision would destroy the natural protections of the foreskin, further expose children to an apparently unsafe healthcare system, and would be more likely to increase than decrease infection.

Even if circumcision eventually should be shown to provide some protection against HIV infection, that protection could only work to reduce the 30% of infections that now are attributed to sexual activity. It would have no effect on the other 70%. Its effect, therefore, would be minimal at best and could not have an effect for the first 15 years,[1] during which time behavioural changes could be introduced into society through education, and a HIV vaccine could be developed to provide immunity.

Circumcision of male children with the intent of reducing an epidemic not of their making is unacceptable from medical, ethical, and legal perspectives. As a public health

measure, male neonatal circumcision fails all tests.[26]

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Coexistent cranial tuberculomas and tuberculosis of the cervix in a postmenopausal woman

Postmenopausal genital tuberculosis, especially tuberculosis of cervix, is rare. We present a case of a postmenopausal woman presenting with multiple cranial lesions and evidence of a silent granulomatous pathology in the cervix.

Case report

A 52 year old woman was admitted with complaints of increasing headaches and generalised weakness for the past 3 months. There were no other neurological symptoms and she denied any history of fever, cough, diarrhoea, bone pains, vaginal discharge, bleeding, dyspareunia, abdominal discomfort, or weight loss. She was postmenopausal for 2 years with a normal menstrual history previously. There was no history of extramarital sexual contacts or any venereal disease in the patient or her spouse. Examination of cardiovascular, chest, abdomen, and nervous system was unremarkable. Breast examination was normal. Gynaecological examination revealed an abnormal cervix with a small growth and irregularity on its anterior lip with no other abnormal finding. A biopsy from the involved site was taken. Contrast enhanced magnetic resonance imaging (MRI) of the brain revealed multiple ring enhancing lesions in cerebral hemispheres and cerebellum (fig 1). Cerebrospinal fluid (CSF) examination revealed absence of pleocytosis, and normal sugar and protein indices. No organism was identified on staining or culture. Serology for brucellosis, toxoplasmosis, and cysticercosis was negative in both CSF and serum. A Mantoux test was performed but was negative. Ultrasound of the abdomen revealed calcification in the region of the cervix. Chest *x* ray, computed tomography (CT) of the abdomen, pelvis and chest, colonoscopy, and barium meal follow through study were normal. ELISA for HIV was non-reactive. The cervix biopsy revealed hyperplastic squamous epithelium, epitheloid cell granulomas with central necrosis, and Langhan's type of giant cells (fig 2). Staining for acid fast bacilli and fungus was negative. Culture of the tissue did not grow any organism. The patient was started on four drug antitubercular therapy (ATT) with oral steroids. Repeat examination of the cervix was normal after 3 months and repeat cranial MRI done at intervals thereafter has shown resolution of lesions.

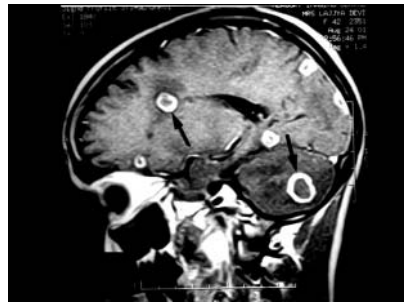

Figure 1 Cranial MRI, post-contrast sagittal section showing ring enhancing lesions (arrows) in the cerebral hemispheres and cerebellum.

Comment

Both central nervous system (CNS) tuberculosis and genital tract tuberculosis are observed in endemically affected populations. Usually, the primary focus is elsewhere, the most common being the lung,[1 2] and is silent by the time the disease manifests in the CNS or the genital tract. An accurate estimate of the incidence of genital tuberculosis is difficult because of infected asymptomatic carriers[2 3] with genital tuberculosis being diagnosed more in relation to infertility.[3 4] Postmenopausal genital tuberculosis is uncommon, possibly because of hormone dependence of infection and adequate blood supply at younger ages.[2 4 5] Tubercular cervicitis is rare with an approximate incidence of 2.5–10% of all genital tuberculosis.[3 4] Primary involvement of the cervix is still rarer, and is thought to be either sexually transmitted through a partner with epididymo-orchitis or through his infected sputum used as a lubricant.[3] Tuberculomas are circumscribed focal granulomatous masses of tubercular origin, which may be single or multiple, vary in size, perilesional oedema or meningeal reaction, produce variable clinical features, and are uncommon at extremes of age.[1 6] CSF examination and polymerase chain reaction may be normal in pure parenchymal forms of CNS tuberculosis.[1] Tubercular bacilli may be scant in hypertrophied cervix and lead to a negative acid fast bacilli stain and culture.[5]

In the present case, we were considering both an infective as well as a mitotic pathology. Since women are known to

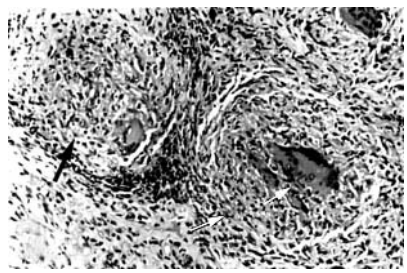

Figure 2 Histopathology of the cervix biopsy specimen showing multiple epitheloid cell granulomas (large arrow) with giant cells (small arrow).

harbour asymptomatic genital tuberculosis, a thorough clinical examination can be helpful in the presence of cranial lesions with a wide differential diagnosis.

Contributors

RB, SP, PS, DS, SG were following this patient clinically; RS provided the pathology details and the image; the manuscript was written by RB and read, edited, and finalised by all authors.

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Seroprevalence of reproductive tract infections in women in northern India—a relatively low prevalence area

Recent years have witnessed a growing concern about the reproductive tract infections (RTI), especially those that are sexually transmitted. The serious threat of AIDS has further drawn attention to the importance of RTI/sexually transmitted diseases (STD),[1] especially in developing countries like India where RTI diagnosis and treatment facilities are extremely limited. Women with RTI are asymptomatic, which if undetected or untreated can lead to complications in the index woman. It is, therefore, worthwhile screening of all women of reproductive age for various RTI so that appropriate interventions can be planned and initiated.

We analysed a total of 2526 women attending the antenatal outpatient department of obstetrics and gynaecology of Nehru Hospital attached to Post Graduate Institute of Medical Education and Research, Chandigarh, for screening of RTI during a 3 year period. This project was approved by the institute's ethics committee. The women were divided into six groups based on clinical histories and various signs and symptoms: group I, pregnant women (n = 600); group II, contraceptive advice seekers (n = 378); group III, contraceptive users (n = 525); group IV, women with infertility (n = 464); group V, women with leucorrhoea (n = 288); group VI, women with a diagnosis of pelvic inflammatory disease (n = 271). Endocervical swabs were collected from all patients and were sent to the microbiology laboratory for Gram stain and culture of *Neisseria gonorrhoeae* (New York city medium). ELISA was also carried out for antigen detection of *N gonorrhoeae* (Abbott laboratories) and *Chlamydia trachomatis* (Chlamydia CELISA, Cellabs Pvt, Ltd, Brookvale, Australia). Venous blood was collected from all women, sera were separated and stored at −20°C till further use. Sera were subjected to the standard Venereal Disease Research Laboratory (VDRL) test and Treponema pallidum haemagglutination (TPHA) test (Serodia-TPHA, Fujirebio Inc, Tokyo, Japan) for syphilis, enzyme linked immunosorbent assay (ELISA) for HbsAg (Auszyme Monoclonal, Abbott Laboratories, USA), and HIV (HIV-1/HIV-2 third generation plus EIA, Abbott Laboratories, USA). Western blot was done if ELISA for HIV was positive.

The mean age of the women in the study group was 30.6 years and the parity ranged from 1 to 6. Overall, seroprevalence of RTI in various groups was 1.82% (n = 46/2526). Each of syphilis and hepatitis B infection were found in 17 women (0.67%), followed by *C trachomatis* in 11 (0.43%) and HIV seropositivity in one (0.02%) (table 1). Though figures of RTI were quite low, all the infections were more common in the pregnant group compared to the other groups. However, surprisingly, *N gonorrhoeae* was not found in any of the women.

Our study reveals that the prevalence of RTI, especially those that are sexually transmitted, is low. Similarly low prevalence of RTI has been reported from Thailand[2] and Bangladesh.[3] Moreover, a very low prevalence of HIV has earlier been reported from Chandigarh.[4] This is in contrast with studies from the developing world, where prevalence rates ranging from 30–40% have been reported.[5–7] Even the low risk populations have a prevalence ranging between 15–20%.[8] The low prevalence in this region is attributed to the better personal hygiene, environmental conditions, healthy sexual behaviour and good socioeconomic status of the patients residing in this area. However, ours is a tertiary care centre and most cases had been treated before they were referred to this hospital. However, even at such a low prevalence, there are still likely to be cost effective interventions for RTI prevention and care—for example, screening of pregnant women for syphilis may be cost effective when prevalence is 1% in this population.

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Table 1 Seroprevalence of RTI in the various groups of women

Tests positive	Group I (n = 600)	Group II (n = 378)	Group III (n = 525)	Group IV (n = 464)	Group V (n = 288)	Group VI (n = 271)	Total (n = 2526)
Syphilis	6	3	0	4	1	3	17 (0.67%)
Gonorrhoea	0	0	0	0	0	0	0
C trachomatis infection	6	1	1	3	0	0	11 (0.43%)
Hepatitis B	9	0	4	4	0	0	17 (0.67%)
HIV	0	0	0	0	0	1	1 (0.02%)
Total	21	4	5	11	1	4	46 (1.82%)

Group I, pregnant women; group II, contraceptive advice seekers; group III, contraceptive users; group IV, women with infertility; group V, women with leucorrhoea; group VI, women with diagnosis of pelvic inflammatory disease.

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Chaperoning in genitourinary medicine: supporting patients and protecting doctors

I read with interest the result of the postal survey regarding chaperoning in genitourinary medicine (GUM) clinics.[1] The notable observation is that female patients were offered a chaperone far more often than males (on all occasions when the examiner was a male (32/32) and frequently when the examiner was a female (13/40)). Chaperoning was offered less frequently when the patient was a male with a female examiner (7/37) and infrequently with a male examiner (3/39).

GUM nurses and doctors are particularly vulnerable because the open access of the services exposes them to situations where they have no prior knowledge of the patient's background, social, behavioural, psychological, or mental state. The vulnerability is accentuated by the fact that sexual history and intimate examination are part of the routine clinical assessment in most of the situations. This vulnerability was called into a course of action in our clinic in 1996 when a senior male clinical assistant was a recipient of allegations (from a male patient in his 50s). The clinical assistant was nearing retirement, after an unblemished long service in general practice, with over 20 years' experience as an assistant in GUM. The patient expressed extremes of behaviour, grandiose imagination, and swings of mood, which became a reason for clinical concern. The concerns were raised with the patient's general practitioner (GP) who advised that the patient suffered problems with alcoholism and was undergoing mental rehabilitation, and that he would attend the patient's condition urgently at home. The GP telephoned the clinic later to indicate that the patient had recovered from his episode and he would like to speak with the consultant GU physician. The patient offered a clear and strong apology regarding what he described as ''inappropriate course of behaviour and action'' and reiterated that his initial allegations against the senior clinical assistant were, in all, unsafe and untrue.

The incident of false allegations has proved the particular vulnerability of doctors and nurses in the GUM clinic setting. A review of the procedures of chaperoning in the GUM clinic was conducted. The clinic then introduced a system of guidelines whereby all clinical examinations and tests are done in the presence of a chaperone (irrespective of the sex of the patient or the examiner). The nursing staff have realised and appreciated the benefits of attendance to support the patients and to assisst the doctors (during the clinical examination and tests). The time spent in the clinical room proved useful in the preparation and labelling of samples. Gaining knowledge about the clinical assessment of clients proved to be valuable to nurses during health advising. The application of the named nurse procedures has meant that the attending nurse would follow the patient all through the clinical assessment, microscopic tests, the introduction of treatment/therapy, and health advising thereafter. This continuity of care *is* more acceptable to the patient and more satisfactory to the nursing staff.

The issue of funding for chaperoning could be argued under the remit of professional safety. Professionals in other services take stringent methods to protect themselves from what could be less dangerous and damaging situations to their professional careers. Therefore, chaperoning in GUM must be viewed in the light of providing support to patients and protection to staff.

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STI case management at a South African teaching hospital

In South Africa, KwaZulu-Natal (KZN) is at the centre of the HIV epidemic and sexually transmitted infections (STIs) are endemic in this province.[1] Improving the quality of STI health care causes a cost effective reduction in HIV prevalence and STI incidence.[2] Despite the introduction of national standard treatment guidelines (STGs), based on the syndromic management approach (where antibiotics are prescribed according to algorithms and non-medicinal aspects of care are emphasised), poor case management has been found in rural KZN clinics.[3] This study determined the quality of care received by STI patients at King Edward VIII Hospital (KEH), Durban. As the province's main academic hospital, KEH has represented the best level of health care for the average citizen of KZN since 1936. Patients with STI are managed syndromically.

The drug treatment of 97 black African outpatients with STI (73% female, average age 29 years) was compared with STGs. Patients also completed a questionnaire assessing non-drug management. Drug treatment complied with STGs in 79% of patients. When assessment included non-drug measures (partner notification cards, condoms, and correct drugs) it fell to 24% compared to 9% found among nurses, with simulated patients in rural KZN clinics.[3] Although overall care appears better in the urban setting, the real difference is at the level of drug treatment (where 79% *v* 41% received recommended drugs), as in both cases only about a quarter of the patients who had correct drug treatment also received appropriate non-drug care. Patients had appropriate counselling in 56% of cases. This was measured in terms of receiving at least one message in each of the five categories shown in table 1. Despite 72% of patients being encouraged to use condoms, 52 patients were not shown how to do this. Of these, only 31 knew how to use them.

Care givers were interviewed and vignettes were used to compare ideal and actual practice. Barriers to patient care and possible solutions were canvassed. All care givers gave appropriate answers for the ideal management of their fictitious case, but reported a difference between ideal management and actual practice in terms of non-drug aspects of management. All care givers failed to give drug information and to promote health seeking behaviour. Barriers to patient care were lack of time, staffing shortages, and motivation. There was a perception that non-drug management was not the responsibility of the tertiary care giver.

Care givers favoured the option of introducing a packet containing information, condoms, and a referral card, which could be issued with medication. In rural KZN a similar intervention resulted in improved case management in 83% of cases compared with a control group of 12% ($p<0.005$).[4] Such packets could help improve STI management in this tertiary setting, which has no dedicated STI clinic.

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Table 1 Categories of patient counselling showing one important example in each category

Counselling category	Example	''Yes'' response (%)	95% CI
Drug information	Told to take medicine	65	55 to 74
Partner referral	Told partner must be treated	56	45 to 66
Health seeking behaviour	Told about the signs of STI	50	39 to 60
Risk reduction	Told that STI enhances HIV risk	57	46 to 67
Condom promotion	Encouraged to use condoms	72	62 to 81

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Male circumcision in Britain: findings from a national probability sample survey

Studies from developing countries[1] and sexually transmitted diseases clinics in developed countries[2] show that male circumcision appears to protect against some ulcerative sexually transmitted infections (STIs) and decreases the risk of HIV infection.[3] We used data from the 2000 British National Survey of Sexual Attitudes and Lifestyles (Natsal 2000)—a large scale, stratified, probability sample survey—to estimate the prevalence of male circumcision in Britain and investigate its association with key demographic characteristics, sexual behaviours, and reported STI diagnosis. Natsal 2000 methodology details are published elsewhere.[4] For the purposes of this investigation, data from targeted oversampling of black Caribbean, black African, Indian, and Pakistani groups (the Natsal ethnic minority boost) were combined with the main survey data in order to increase the numbers of these respondents included in the analysis. All data were weighted to be representative of the British population and analyses were performed using Stata version 6.0 to take into consideration Natsal 2000's complex survey design.[4]

We found 15.8% (95% confidence interval (CI) 14.7 to 17.1) of British men aged 16–44 years reported being circumcised in Natsal 2000. Age specific prevalence was greatest among men aged 40–44 years (19.6%, 95% CI 16.8 to 22.7) compared to those aged 16–19 years (11.7%, 95% CI 9.0 to 15.2). With the exception of black Caribbeans, men from all ethnic minority backgrounds were significantly more likely to report being circumcised compared to men who described their ethnicity as white ((adjusting for demographic variables: age, global region of birth, ethnicity, residence in London, religion, and qualifications) adjusted odds ratio (OR) for self reporting ethnicity as other than white 3.02, 95% CI 2.39 to 3.81, $p<0.001$). In addition, men born abroad instead of in Britain were significantly more likely to be circumcised ((adjusting for demographic variables: age, global region of birth, ethnicity, residence in London, religion, and qualifications) adjusted OR 1.74, 95% CI 1.25 to 2.42, $p<0.001$). Significant ($p<0.001$) variations in the prevalence of circumcision were also observed across the major religious groups, with prevalence being greatest among Jewish men (98.7%, 95% CI 90.1 to 99.8) and lowest among Hindus, Sikhs, and Buddhists (9.8%, 95% CI 4.7 to 9.3). Relative to uncircumcised men, circumcised men were more likely to report having had homosexual partner(s) (7.5% *v* 5.3%, $p = 0.012$) and partners from abroad (19.7% *v* 13.1%, $p<0.001$).

We did not find any significant differences in the proportion of circumcised and uncircumcised British men reporting ever being diagnosed with any STI (11.1% compared with 10.8%, $p = 0.815$), bacterial STIs (6.4% cf 5.9%, $p = 0.628$), or viral STIs (4.7% cf 4.5%, $p = 0.786$) (table 1). We also found no significant associations between circumcision and being diagnosed with any one of the seven specific STIs.

Our findings confirm that the prevalence of male circumcision among British men appears to be declining. This is despite an increase in the proportion of the British population describing their ethnicity as non-white.[5] The lack of association between circumcision status and STI history in this population is consistent with findings from other developed countries[6] and may be because of relatively low prevalence of STIs in this setting, as well as the relatively small proportion of the population who are circumcised.

Acknowledgements

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Contributors

SD drafted the paper and participated in the statistical analysis, with contributions from CM; KF, AJ, KW, and RE were co-investigators and participated in the design and management of the main study.

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Table 1 Cumulative incidence of reported previous STI diagnosis by circumcision status among men aged 16–44 years in Britain (Natsal 2000*)

	Uncircumcised†% (95% CI)	Circumcised†% (95% CI)	OR for being circumcised (95% CI)	p Value
Any STI‡	10.8 (9.8 to 12.0)	11.1 (9.0 to 13.7)	1.03 (0.80 to 1.34)	0.815
Any bacterial STI§	5.9 (5.1 to 6.8)	6.4 (4.8 to 8.5)	1.09 (0.77 to 1.55)	0.628
Any viral STI¶	4.5 (3.8 to 5.3)	4.7 (3.4 to 6.6)	1.05 (0.72 to 1.55)	0.789
Gonorrhoea	1.1 (0.8 to 1.6)	1.5 (0.8 to 2.6)	1.31 (0.67 to 2.58)	0.432
Genital chlamydia	1.5 (1.1 to 1.9)	1.2 (0.7 to 2.2)	0.81 (0.41 to 1.61)	0.555
Syphilis	0.2 (0.0 to 0.6)	0.3 (0.0 to 1.0)	1.29 (0.27 to 6.05)	0.748
Non-specific urethritis	3.5 (2.8 to 4.2)	4.0 (2.7 to 5.9)	1.17 (0.74 to 1.84)	0.501
Genital herpes	1.0 (0.8 to 1.4)	1.1 (0.6 to 2.3)	1.10 (0.51 to 2.38)	0.804
Genital warts	3.6 (3.0 to 4.3)	3.8 (2.6 to 5.5)	1.04 (0.67 to 1.63)	0.858
Trichomonas	0.4 (0.2 to 0.7)	0.1 (0.0 to 0.5)	0.26 (0.04 to 1.62)	0.148

*In addition to the main Natsal 2000 sample, an additional sample (unweighted/weighted) of 406/299 men from black Caribbean, black African, Indian, and Pakistani ethnic groups were recruited in order to provide more robust estimates for these population groups.
†Unweighted/weighted bases for uncircumcised men are 4833/3795, respectively, and for circumcised men are 913/982, respectively.
‡Gonorrhoea, genital chlamydia, syphilis, non-specific urethritis, genital herpes, genital warts, and trichomonas.
§Gonorrhoea, genital chlamydia, syphilis, and non-specific urethritis.
¶Genital herpes and genital warts.

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Conflict of interest: None declared.

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Cutaneous larva migrans of the penis

Cutaneous larva migrans (CLM) is a distinctive cutaneous eruption caused by the invasion and migration of larva of parasites in skin.[1] It is also known by various other names, such as creeping eruption, sand worm, plumber's itch, duck hunter's itch, and epidermatitis linearis migrans.[2] CLM occurs commonly in exposed areas, such as feet, buttocks, and hand.[1] Isolated occurrence of CLM on the penis is very rare and, hence, rarely reported.

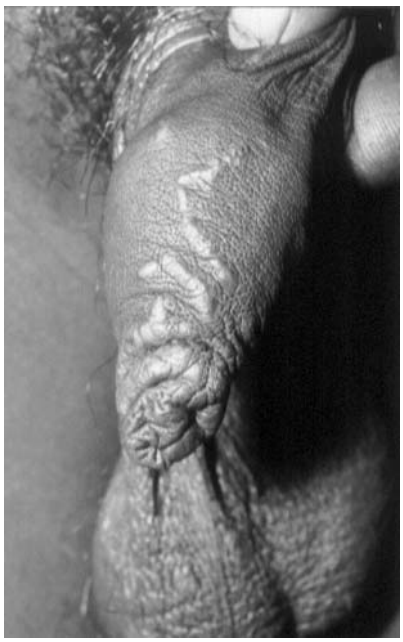

Figure 1 A linear serpentine lesion seen extending from the tip of the prepuce on to the shaft.

A 24 year old unmarried male agricultural labourer presented with itchy lesions on the penis of 5 days' duration. The lesion started on the tip of the prepuce and gradually progressed upwards in a serpentine fashion. He had no lesions elsewhere on the body. He denied a history of premarital sexual contact but had visited a beach resort. He had not applied any topical medication on his penis.

On physical examination, the patient was uncircumcised. A linear serpentine lesion was seen extending from the tip of the prepuce to the shaft on the ventral aspect of the penis (fig 1). He had no other skin lesions.

His routine haemogram and serum biochemistry were within normal limits. Stool examination did not reveal any parasites. A clinical diagnosis of cutaneous larva migrans was made and he was put on oral albendazole 400 mg twice daily for 3 days. The lesion stopped progressing after 2 days of treatment. The lesion completely subsided by 7 days and there was no recurrence at follow up after 4 weeks.

Cutaneous larva migrans is a self limiting dermatitis commonly known as ''creeping eruption,''[2] because of its distinctive feature that the lesion creeps or migrates caused by the presence of a moving parasite in the skin. CLM has a worldwide distribution though it is common in the tropics and subtropics.[2] The occurrence of CLM is influenced by poor sanitation and appropriate environmental conditions.[3]

The clinical features of CLM may vary from non-specific dermatitis to typical creeping eruption. The initial lesion starts as an erythematous itchy papule. Soon, a slightly raised flesh coloured swollen lesion about 2–3 mm thick develops and forms linear, serpentine (serpiginous), or bizarre tracts. The larva migrates about 2–5 cm per day and forms the tortuous tracts.[4] Sometimes, multiple vesicles may appear along the tract. Rarely, hundreds of tracts may be seen in a severely infected person.[5]

Cutaneous larva migrans can be grouped into several types depending upon the species responsible for the lesions and their clinical appearance.[6] They are type 1 (caused by animal hookworms), type 2 (human hookworms), type 3 (human strongyloides), type 4 (animal strongyloides), type 5 (*Gnathostoma*), and type 6 (insect larva).[6] CLM is usually caused by third stage larva (filariform larva) of dog and cat hookworms (*Ancylostoma-caninum* and *Ancylostomabrasiliensis*, respectively) and rarely by *Uncinariastenochepala*, *Bunostomumphlebotomun*, or the human larvae of *Necatoramericanus* and *Ancylostoma-duodenale*.[4 5]

Cutaneous larva migrans is usually self limiting but the symptoms (itching) and possible complications warrant treatment.[1] Various physical treatments, such as surgery and cryotherapy, have been tried with little success. The topical treatments that have been used include 15% thiabendazole, 2% Gammexane cream, 25% piperazine citrate, and metriphonate.[7] Though many types of treatment have been used, albendazole is considered to be the drug of choice.[8] Albendazole is used in the dosage of 400–800 mg/day for a period that may vary from 1–7 days.[9] Eradication of larva causing CLM is impractical, but avoiding contact with contaminated soil of beaches can prevent it.[1 2]

In our patient the localisation of CLM was unique and this could possibly be attributed to the habit of not wearing underwear when playing on the beach, thus predisposing him to develop lesions on genitalia.

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NOTICE

8th European Society of Contraception Congress

The 8th European Society of Contraception Congress will be held from 23–26 June 2004 in Edinburgh, Scotland, UK. For further details please contact ESC Central Office, c/o Orga-Med Congress Office, Essenestraat 77, B-1740 Ternat, Belgium (tel: +32 2 582 08 52; fax: +32 2 582 55 15; email: orgamed.ann@pandora.be; and website: http://www.contraception-esc.com/edinburg.htm).

PostScript

LETTERS

Perceived transmissibility of STIs: lack of differentiation between HIV and chlamydia

Sexually transmitted infections (STIs), such as HIV and chlamydia, differ widely in their transmissibility. The estimated probability of HIV transmission from an infected heterosexual man to a woman in one act of unprotected vaginal intercourse is 0.1%,[1] whereas the same probability for chlamydia is 35%.[2] This research examines college students' knowledge about the per act transmission probabilities for HIV and chlamydia.

Previous studies reported median perceived transmission probabilities of 50%[3] and 33.4%[4] for HIV for one act of unprotected receptive vaginal intercourse with an infected man. These findings were interpreted as demonstrating "badly overestimated per act transmission probabilities" (Pinkerton *et al*[4] p 19). However, the distributions of the estimates were not provided. If estimates are widely dispersed across the entire probability range from 0% to 100%, interpretations of averages are meaningless and interpreting the data as indicating a systematic overestimation of the transmission probability would be unfounded. We studied this possibility in a sample of college students.

In all, 234 undergraduate university students (145 women, 85 men, mean age 21.14 years, SD 2.82, four did not report their age and sex) enrolled in a variety of academic programmes were randomly selected and individually approached after classes. Aside from their age and sex, participants were asked in two separate questions: "What do you think is the probability, in percentages, of a woman becoming infected with HIV (chlamydia) from one unprotected act of vaginal intercourse with an infected man?" The order in which people were asked the two questions was counterbalanced.

Figure 1 presents the distribution of the estimates, showing that they are widely and quite equally dispersed across the entire range from 0% to 100%, and that distributions do not differ between the two infections (Kolmogorov-Smirnov $Z = -0.73$, $p = 0.46$). No age or sex differences were found. Only 3.9% and 5.6% of the estimates for HIV and chlamydia, respectively, come close to the correct probabilities if "correct" is defined as smaller than 0.5% for HIV and between 30% and 40% for chlamydia. In all, 34.8% of the participants falsely estimate that chlamydia has a lower transmission probability than HIV, 39.5% correctly estimate that chlamydia has a higher transmission probability than HIV, and 25.8% provide exactly the same percentage estimate for both STIs.

The data show that a large majority of college students clearly lacks knowledge of the transmission probabilities of HIV and chlamydia and does not know that chlamydia is more infectious than HIV. Previous reports of statistical averages of the perceived transmissibility[3 4] and their interpretation as indicating a systematic overestimation bias may be unfounded. The results highlight the importance of inspecting response distributions and restraining from reporting statistical averages when distributions are widely dispersed. Furthermore, they highlight that information about transmission probabilities should be incorporated into sexual health programmes in order to make people more aware of STIs that are considerably easier to contract than HIV.

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Contributors

The study was jointly conceptualised and designed by BK and RK; data were collected by RK, with the assistance of Surkhraj Cheema; BK analysed the data and led the writing; both authors jointly interpreted the findings, reviewed drafts of the manuscript, and approved the final version.

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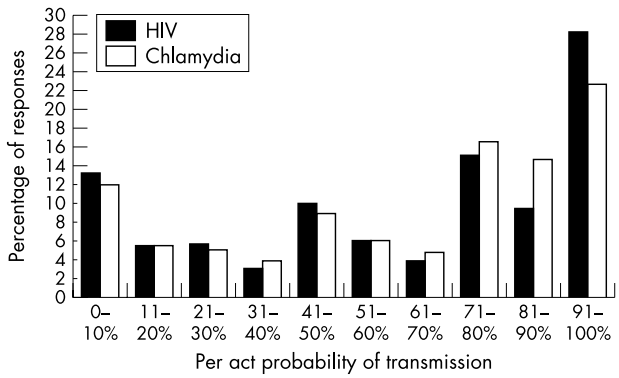

Figure 1 Distribution of estimates for HIV and chlamydia for one act of unprotected vaginal intercourse with an infected man.

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A new method for extended trichomonad storage

With the introduction of the InPouch test for *Trichomonas vaginalis*,[1] *T gallinae*, and *T foetus*, it was desirable to have a procedure available for maintaining extended culture viability. The three trichomonads are viable after 8 days by subculture in the InPouch at 33℃. Extended viable storage of these three trichomonads is the subject of this letter.

We have evaluated various procedures involving freezing 24 hour InPouch cultures at −70℃. We now report a procedure that has demonstrated storage of viable trichomonad cultures for more than 2 years.

The freshly subcultured trichomonads are incubated at 35℃ for 24 hours, which should produce a viable count of approximately 1.0×10^5/ml. It is important to note that subsequent subculture will require an adequate nutrient available for growth in the pouch. Then 0.1 ml of pure sterile glycerol is added to the medium in the pouch and thoroughly mixed employing the "shoe-shine" technique. It is important to immediately place the pouch in a −70℃ freezer.

After freezing most of the trichomonads in the pouch are non-viable, but successful subculture is routinely achieved upon thawing. When the pouch is removed from the freezer, it should be immediately placed in an incubator at 35–37℃. After 3 days a few viable trichomonads will be observed, and after 4 days it may be subcultured.

This procedure has been effective for *T vaginalis*, *T gallinae*, and *T foetus*.

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Reference

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''Water can'' penis caused by tuberculosis

Tuberculosis of the penis is a very rare condition, clinically manifesting as primary or secondary tuberculosis or tuberculide.[1] Penile involvement secondary to urethral tuberculosis is rare and its presentation with periurethral fistulas leading to ''water can'' penis is unknown. We report this rather intriguing condition in a patient.

A 40 year old male agricultural labourer presented with a 1 year history of purulent discharge per urethra with multiple discharging sinuses on the tip of the penis. The patient was asymptomatic about a year ago, when he developed multiple nodules on the glans penis that ulcerated to discharge purulent material. These nodules became persistent sinuses and discharged pus. Within a few weeks, he started passing urine through these sinuses in the glans penis. He also experienced difficulty in micturition but it was not associated with pain or strangury. The patient had no systemic complaints. He was married with two children and had no history of extramarital contact or genital ulcers.

On physical examination, the penis shape was like a saxophone. The prepuce and glans penis were oedematous and indurated. The glans penis had multiple sinuses around the urethral meatus (fig 1). On squeezing the penis, pus was expressed from the meatus and the sinuses. The glans penis also showed areas of depigmentation (vitiligo). The distal part of the shaft of the penis showed induration involving corpora cavernosa whereas the proximal part was devoid of any lesion. The testes, bilateral epididymis, and scrotum were normal. The vas deferens was normal on palpation. The prostate was normal on rectal examination.

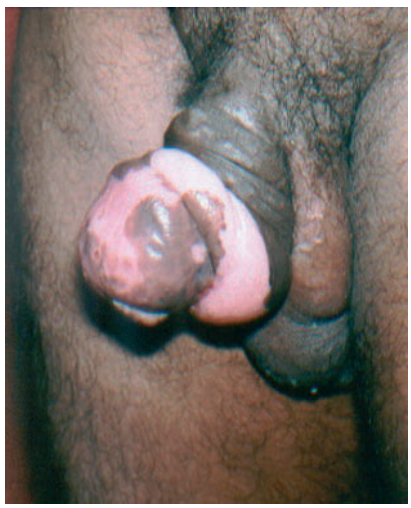

Figure 1 Saxophone penis with multiple sinus openings over the glans penis.

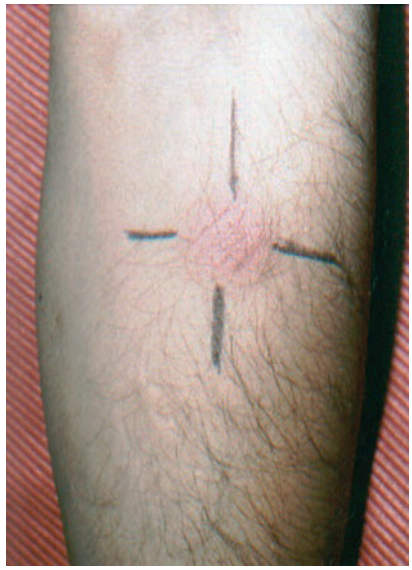

Figure 2 Forearm showing positive Mantoux reaction.

The routine haemogram revealed an elevated erythrocyte sedimentation rate of 100 mm in the first hour. His liver and renal functions were normal. The discharge smear stained with Gram stain and Zeihl-Neelsen stain. The Gram stained smear revealed numerous pus cells and acid fast stain showed abundant acid fast bacilli. Culture for *Mycobacterium tuberculosus* grew contaminants. A roentgenogram of the chest and penis was unremarkable. An intravenous pyelogram was normal. Voiding cystourethrography revealed glandular urethral stricture with urethrocutaneous fistulas. Ultrasonography of abdomen and prostate was normal. Mantoux skin test was strongly positive (30×30 mm) (fig 2). His venereal disease research laboratory test (VDRL) and HIV serology was non-reactive.

Based on these clinical features, positive Mantoux test and acid fast bacilli in the urethral smear, the diagnosis of urethral tuberculosis with urethrocutaneous fistula was made. The patient was started on antituberculous treatment comprising isoniazid 300 mg, rifampicin 600 mg, pyrazinamide 1500 mg, and ethambutol 800 mg per day. The patient showed marked improvement after 4 weeks of treatment. The sinuses closed and discharge ceased. Patient was referred to urology for management of stricture, which was planned after the antituberculous treatment. The patient tolerated antituberculous treatment and completed 9 months of treatment with remarkable recovery in the swelling of the penis.

Genital involvement occurs in 50% of male patients with urogenital tuberculosis. Penile tuberculosis is rare with less than 1% of patients having penile involvement.[2] Tuberculosis of the penis usually presents as ulcers, tubercular cavernositis, or nodules. In most cases, the lesion appears as a superficial, solitary, painless ulcer on the glans penis. It can be clinically indistinguishable from malignant disease.[3] Rarely, lesions may persist as solid nodule or cavernositis with ulceration.[4 5] Papulonecrotic tuberculide may also present as an ulcer on the penis.[1] Penile involvement may occur secondary to coexisting urinary tract tuberculosis. The transmission occurs secondary to bacilluria in these patients. Infection of the penis may occur by direct contact at the time of intercourse with a partner having urogenital tuberculosis.[2]

Tuberculosis of male urethra is an uncommon condition and presents as urethral strictures, periurethral abscesses, or fistula formation. Fistulas can occur in the perineum leading on to ''water can'' perineum.[6] Similar occurrence of fistulas in penis can aptly be designated as ''water can'' penis. In our case, penile involvement occurred secondary to urethral tuberculosis. Such involvement of the penis by tuberculosis is unique and not reported in the literature. ''Water can perineum'' is also known to occur with gonorrhoea but our patient had a negative urethral smear for Gram negative diplococci and had features suggestive of urethral tuberculosis. Further, the strictures, fistulas, and lymphoedema had led to ''saxophone'' deformity of the penis. Such deformity is well known with lymphogranuloma venereum, but is unknown in tuberculosis.

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South Asians with HIV in London: is it time to rethink sexual health service delivery to meet the needs of heterosexual ethnic minorities?

Recent conservative estimates suggest that at the end of 2002, 4.8 million people were living with HIV/AIDS in south Asia including 4.58 million in India.[1] In the United Kingdom there are estimated to be 1.5 million people of south Asian ethnicity. While the National Strategy for Sexual Health aims to improve health care in those who have HIV through earlier diagnosis,[2] studies have shown that that other ethnic minority groups present with advanced disease and not through routine genitourinary medicine (GUM) screening.[3 4] We studied the case notes of all adults self defining as of Indian, Pakistani, Bangladeshi, or Sri Lankan ethnicity diagnosed HIV positive from

Table 1 Characteristics of presentation of study population at time of HIV diagnosis (n = 117)

	Heterosexual men (n = 45)	Homosexual men (n = 36)	Heterosexual women (n = 27)	Other risk groups (n = 9)
AIDS illness at presentation	16 (36%)	6 (16%)	2 (7%)	1 (11%)
Median CD4 cell count $\times 10^6$/l (range)	178 (3–1,023)	381(4–810)	377 (10–1,104)	151(50–795)
Median HIV viral load copies/ml (range)	24 500 (50–1 000 000)	24 636 (425–3 000 000)	7822 (173–489 184)	12 870 (6676–57 530)
Reasons for HIV test				
AIDS/symptomatic	27 (60%)	11 (31%)	7 (26%)	2 (22%)
Known HIV+ sexual partner	3 (7%)	4 (11%)	12 (44%)	0
Routine screen for sexually transmitted infections	1 (2%)	16 (44%)	1 (4%)	0
Patient request	7 (15%)	3 (8%)	2 (8%)	2 (22%)
Child positive	3 (7%)	0	3 (11%)	0
Insurance/visa purposes	3 (7%)	1 (3%)	0	2 (22%)
Antenatal screening	0	0	2 (7%)	0
Other	1 (2%)	1 (3%)	0	3 (34%)

January 1985 to December 2002 attending four HIV treatment centres in London. Information was collected on demography, mode of first presentation, and clinical stage of HIV infection.

In all, 117 patients were identified, 30 women and 87 men. The number of new diagnoses among south Asians increased by more than threefold over the period 1996 to 2002 compared to earlier years (25 diagnoses before 1996, 90 diagnosed from 1996–2002).

The median age at diagnosis was 38 years (range 19–64 years) for men and 28 years (range 20–55 years) for women. Forty five patients (38%) had originated from Africa, 28 (24%) from India, and 18 (15%) from the United Kingdom. The majority were of Indian ethnicity (95/117; 81%) with the next largest ethnic group being Sri Lankan (12/117; 10%).

The primary mode of transmission was heterosexual sex (72/117; 62%) with transmission through sex between men accounting for a further 31% (36/117) of cases. Four infections were acquired through blood transfusion, two through injecting drug use, one from a needle stick injury, and in two cases risk behaviour could not be identified. The majority (39%, 45/117) of patients identified Africa as the probable place of infection with 28% and 15% probably infected in the United Kingdom and India, respectively.

There were substantial differences in the reasons for testing between individuals in the main risk groups. In particular, heterosexual men and women were both significantly less likely than homosexual men to be diagnosed via routine attendance at a GUM clinic (2% and 4%, compared to 44%, respectively, p = <0.001, Fisher's exact test). Among heterosexuals, the main reason for testing in men was symptomatic HIV infection/AIDS (60% of men but only 26% of women), whereas women were more likely to be tested through partner notification of a known HIV+ sexual contact (44% v 7% in males) (table 1).

The median CD4 count at presentation overall was 300 (range 3–1104) cells $\times 10^6$/l . However, male heterosexuals presented with significantly lower CD4 counts (median 178, range 3–1023 cells $\times 10^6$/l) than either homosexual men (median 381, range 4–810 cells $\times 10^6$/l; p = 0.01) or heterosexual women (median 377, range 10–1104; p = 0.02).

While there are methodological limitations with retrospective case note reviews and differing reporting categories used for Asian ethnicity, our data confirm national surveillance reports of increasing HIV infection among Britain's south Asian communities.[5] The four centres taking part in this study reported 90 cases from 1996–2002 representing one in three of all HIV positive south Asians reported in this time period. Despite the fact that the majority of these were not diagnosed through routine GUM screening the median CD4 count at presentation of heterosexual and homosexual men was consistent with national trends.[6] Indeed, south Asian women presented higher CD4 counts than seen nationally, primarily attributable to effective partner notification. While south Asians still represent less than 5% of all reported HIV positive diagnoses in UK ethnic minority groups[5] (Asians 334; black Africans 8848; black Caribbeans 844) numbers are likely to continue to increase in the future and methods for encouraging early presentation need to be developed in response to this.

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Failure to maintain patient access to GUM clinics

We read with interest the article published by Cassell *et al*[1] about the maintenance of patient access to genitourinary medicine (GUM) clinics following a switch to an appointment based system. Their data show no significant change in the age, ethnic mix, symptom status, and disease mix following the change to appointments. In addition, such a system of 35% prebooked appointments produced an increase in the number of patients seen over that time.

A new appointment based system was introduced at the John Hunter genitourinary medicine clinic at the Chelsea and Westminster Hospital in October 2001. This comprised 80% of appointments which were prebooked with a further 20% allocated on the day following triage by a nurse. All patients with symptoms were seen on the day of presentation.

We have analysed the results from two 9 month periods, taken immediately before the change and 3 months after the introduction of an appointment based system. The total number of patients and sex ratio seen

Table 1 Total number of STI diagnoses

	No (%)		
	Jan–Sept 2001	Jan–Sept 2002	Relative drop (%) (95% CI)
Total no of patients attending	11714	11345	3.2 (2.8 to 3.5)
Patients new to clinic	5191 (44.3)	4669 (41.2)	

Table 2 Details of STIs diagnosed in men and women

	Male			Female		
	Jan–Sept 2001 (n = 6920)	Jan–Sept 2002 (n = 6659)		Jan–Sept 2001 (n = 4794)	Jan–Sept 2002 (n = 4690)	
	No (prevalence per 100 patient)		p Value using χ^2 test	No (prevalence per 100 patient)		p Value using χ^2 test
A1	37 (0.5)	53 (0.8)	0.061	0 (0.0)	3 (0.1)	0.121*
B1	262 (3.8)	190 (2.9)	0.002	41 (0.9)	35 (0.7)	0.552
C4a/C4c	244 (3.5)	179 (2.7)	0.005	187 (3.9)	199 (4.2)	0.399
C4h	683 (9.9)	479 (7.2)	<0.001	–	–	–
C10a	89 (1.3)	55 (0.8)	0.009	111 (2.3)	80 (1.7)	0.035
C11a	264 (3.8)	254 (3.8)	0.998	147 (3.1)	164 (3.5)	0.239
Total diagnosed with an STI at this episode	1579 (22.8)	1210 (18.2)	<0.001	486 (10.1)	481(10.3)	0.849

*p Value using χ^2 test with Yates's correction.
(A1) Primary diagnosis of syphilis; (B1) gonorrhoea; (C4a, C4c) uncomplicated chlamydia; (C4h) non-gonococcal urethritis; (C10a) first attack of genital herpes; (C11a) anogenital warts.

over this period did not change. We have shown however a dramatic change in the number of STI diagnoses made over these two periods.

Tables 1 and 2 highlight a significant fall in the total number of STI diagnoses for gonorrhoea (B1), uncomplicated chlamydia (C4a, C4c), non-gonococcal urethritis (C4h), and first attack of genital herpes (C10a) in our male patients. The only significant fall for women was seen in the diagnosis of a first attack of genital herpes. There was no significant change for both sexes in the diagnosis of anogenital warts (C11a) between the two systems. The rise in primary diagnosis of syphilis (A1) reflects the beginning of the current epidemic in London, boosted further by a proactive approach to diagnosis in our HIV positive population.[2]

This fall in acute STI diagnoses in men was approximately twice as marked for men who have sex with men (data not shown).

Our aim in planning the change to a primarily appointment based system was to improve patient experience, by reducing waiting times, and enhance access for symptomatic patients into reserved appointment slots. These data show evidence for an opposite effect which we believe has resulted from asymptomatic individuals requiring sexual health screening booking the majority of clinic appointments well ahead of their appointment, thereby reducing access at convenient times for symptomatic individuals who telephone.

To respond to this we have adjusted the ratio of prebooked versus emergency appointments and significantly amended our approach to triage of symptomatic patients, in an attempt to reverse these trends. Particular attention is now being given to our telephone booking protocol to facilitate symptomatic patients to achieve prompt, immediate appointments. We are publishing these findings to inform others who are implementing changes in clinic appointment schedules, designed to enhance access, to better tailor the booking and triage systems to achieve this goal. We will continue to audit our system to examine the effect of the revised system and to further examine why the change to our appointment system disproportionately affected those men who have sex with men.

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Prevalence of HSV-1/HSV-2 antibodies in HIV seropositive patients in Coventry, United Kingdom

The seroprevalence of herpes simplex virus (HSV) antibody among HIV patients within the United Kingdom is unknown. We therefore conducted a HSV seroprevalence study in HIV patients attending our genitourinary medicine clinic from January 2000 to December 2001. Our previous study[1] revealed an overall prevalence of HSV-1 (60%), HSV-2 (20%), and both HSV-1 and HSV-2 (12%) among male and female genitourinary medicine clinic attendees who were either HIV negative or whose HIV status was unknown.

Serum samples from 96 consecutive ethnically diverse HIV patients were collected during routine investigations, and tested for HSV type specific antibodies by monoclonal antibody blocking enzyme linked immunoassay.[2] Out of 96 patients, two HSV-1 and three HSV-2 antibody test results were equivocal in four individuals. These were excluded from the analysis and results are presented here for 92 patients.

There were 56 men and 36 women in the study: 46 (50%) were white, 43 (47%) black African, and three were from other ethnic groups. All the black Africans were heterosexuals and 71% of men were homosexuals. The median age was 35 years (range 21–80).

HSV-1 seroprevalence was 86% among men and 97% among women ($p = 0.14$). HSV-2 seroprevalence was 50% among men whereas it was 94% among women ($p = 0.0001$). There was no statistically significant difference between the seroprevalence of HSV-1 between white and black people. However, seroprevalence of HSV-2 and both serotypes was significantly higher among black than among white people.

This study shows very high seroprevalence of HSV-1 (90%), HSV-2 (67%), and both HSV-1 and HSV-2 (64%) among our HIV positive cohort in Coventry. The high prevalence of HSV-2 in women is possibly because most of them were black African and acquired HIV through sex. These findings may have important public health implications as the high rate of HSV-2 is therefore likely to act as a cofactor in HIV transmission.

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BOOK REVIEW

Effective Sexual Health Interventions: Issues In Experimental Evaluation

Ed Judith M Stephenson, John Imrie, and Chris Bonell. Pp 232; £55. Oxford: Oxford University Press, 2003. ISBN 0-19-850849-2.

HIV spreads more every day and there are epidemics of other STIs in both the developed and developing world at least in part because the fear of HIV appears to be receding in the population. Our current strategies to contain these problems are meeting with limited success and treatment of people who are already infected, important though that is in controlling bacterial infections, is much less effective with continuing viral infections. There is an urgent need to develop and to test better

methods of helping people to reduce their risky sexual behaviour.

This book is excellent, brief, fairly comprehensive, and very readable. Its focus is designing studies on the effectiveness of sexual health interventions. If we are to get anywhere in improving behavioural interventions it is essential that what is done is carefully evaluated.

The first three chapters of the book are concerned with methodology, particularly whether randomised controlled (RCTs) trials are an appropriate method for evaluating interventions in this area. While this section of the book is well argued on all sides it doesn't really break any new ground. The strengths and weaknesses of RCTs in behaviour change are pretty much what they are in any other area of medicine. Methodologies don't exist as stand alone phenomena, whether an RCT or some other methodology is appropriate depends simply on what question one is seeking to answer.

The second section of the book covers models of behaviour change and the choice of design and outcome measures. It is clear that one of the main problems in intervening in sexual health is the poor quality of the available psychological models and our real lack of understanding about why people behave as they do. Without understanding why people behave as they do it is difficult to help them to change. It is interesting that models of health behaviour never seem to get discarded, even the ones that are known to be weak. There are particularly strong chapters on cluster randomisation, an approach which probably gives rise to more inappropriate statistics than any other and on complex behavioural measures. The latter should be required reading for anyone measuring any aspect of risky sexual behaviour simply because it highlights how weak many studies of sexual behaviour—and not just of behaviour change—are in this respect.

The book ends by looking at generalisability in its broadest sense. Generalisability is an area that tends to get overlooked. Even a highly successful behaviour change programme would be of no use in developing countries if it was labour intensive and dependent on highly skilled staff for its delivery.

I would recommend this book to anyone planning a trial or simply seeking to understand the existing literature. I would however caution that to make sense of it you will have to look at some of the available reviews of the behaviour change literature since the book assumes some knowledge, or willingness to acquire knowledge, of these.

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NOTICES

Australasian Sexual Health Conference 2004: Behind the Mask

This conference will be held at the Adelaide Convention Centre, South Australia, on 31 March to 3 April 2004. For further details please contact Dart Associates (tel +61 2 9418 9396/97; email dartconv@mpx.com.au; and website http://www.acshp.org.au).

8th European Society of Contraception Congress

The 8th European Society of Contraception Congress will be held from 23–26 June 2004 in Edinburgh, Scotland, UK. For further details please contact ESC Central Office, c/o Orga-Med Congress Office, Essenestraat 77, B-1740 Ternat, Belgium (tel: +32 2 582 08 52; fax: +32 2 582 55 15; email: orgamed.ann@pandora.be; and website: http://www.contraception-esc.com/edinburg.htm).

CORRECTIONS

In the October issue of *STI* table 2 of the paper by Zheng *et al* (Zheng HP, Cao WL, Wu XZ, Yang LG. Antimicrobial susceptibility of *Neisseria gonorrhoeae* strains isolated in Guangzhou, China, 1996–2001. *Sex Transm Infect* 2003;**79**:399–402) was published with incorrect column headings. Under the heading spectinomycin only ''S(%)'' and ''R(%)'' should appear and under ceftriaxone ''S(%)'', ''I(%)'', and ''R(%)'' should appear, in that order. Under ciprofloxacin ''S(%)'', ''I(%)'', and ''R(%)'' should appear. A corrected version of the table can be found on the website at http://sti.bmjjournals.com/cgi/content/full/79/5/399/DC1.

The authors of a letter in the December issue of STI (Dave SS, Johnson AM, Fenton KA, Mercer CH, Erens B, Wellings K. Male circumcision in Britain: findings from a national probability sample survey. *Sex Transm Infect* 2003;**79**:499–500) were listed in the wrong order. The correct author list should be as follows: Dave SS, Fenton KA, Mercer CH, Erens B, Wellings K, Johnson AM.

In the corresponding author's address of a letter published in the December issue (Bhatia R, Prabhakar S, Shedde D, *et al*. Coexistent cranial tuberculomas and tuberculosis of the cervix in a postmenopausal woman. *Sex Transm Infect* 2003;**79**:496–7) All India Institute of Medical Sciences was incorrectly printed as AU India Institute of Medical Sciences.