

Table 1 Patient details

Patient No	Age (years)	Smoker	Referral source	Referral diagnosis	Presenting features	Urine dipstick	Urine cytology	Diagnosis and treatment
1	26	NR	GP	?Infection	3 months intermittent painless haematuria	Blood +ve (trace)	ND	Well differentiated bladder papillary TCC; non-invasive; resected
2	34	Yes	GP	?Urethritis	6 weeks frequency, dysuria	Blood +ve	ND	Poorly differentiated adenocarcinoma; bladder calculus also present; tumour resection, chemotherapy, and radiotherapy
3	53	No	GP	Recurrent prostatitis	1 year penile and suprapubic pain; frequency, dysuria	Blood +ve	Malignant	Extensive transitional cell carcinoma in situ, involving prostatic urethra; cystoprostatectomy
4	42	No	GP	Sterile pyuria ?cause	1 year penile and perineal pain, frequency, dysuria	Blood +ve (trace)	Malignant	Extensive TCC plus carcinoma in situ, involving prostatic urethra; cystoprostatectomy
5	50	Yes	GP	?Infection	6 weeks frequency, urgency, dysuria	Blood +ve	Suspicious	Poorly differentiated TCC at bladder neck; muscle invasion; cystoprostatectomy, and chemotherapy

NR = not recorded; ND = not done; TCC = transitional cell carcinoma.

genitourinary infection, rather than suspected neoplasia, because of his young age (26 years).

Bladder neoplasia is especially liable to cause irritative symptoms when represented by, or associated with, carcinoma in situ of the bladder urothelium.^{1,2} Urine cytology may be useful in this subgroup, and was abnormal in all three of the five patients in whom it was requested. When this process involves the prostatic urethra, symptoms mimicking prostatitis may arise. Early diagnosis of bladder neoplasia is of prognostic importance; the presence of carcinoma in situ or prostatic involvement by bladder carcinoma are poor prognostic features for which radical surgery may be required.^{1,4}

These cases highlight the importance of careful follow up of patients presenting with persistent irritative-type bladder symptoms, especially in an older age group, when specific tests for genitourinary infection are negative, and where microscopic haematuria is a feature. Bladder carcinoma should be considered in this subgroup; urine cytology and referral for cystourethroscopy may be indicated. Although rare in younger adult males, bladder cancer should not be ruled out in men under the age of 45 years, and our experience strengthens the case for continuing with routine urine testing in genitourinary medicine clinics.

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Atrial myxoma and HIV infection

EDITOR.—Atrial myxoma has not previously been reported in HIV infection. We describe a patient with advanced HIV disease who underwent surgery for this condition.

The patient was diagnosed with asymptomatic HIV infection in February 1987 when she was aged 50 years. Her CD4 count was $690 \times 10^6/l$ at this time. HIV infection was acquired through sexual intercourse with a bisexual male partner. In December 1990 the CD4 lymphocyte count had fallen to $190 \times 10^6/l$ and zidovudine monotherapy was started. This was continued until 1996 when she was prescribed a combination regimen. Co-trimoxazole was given for *Pneumocystis carinii* prophylaxis, but the patient deferred starting this until December 1992.

In February 1992 the patient was admitted to another hospital with an acute myocardial infarction which was successfully thrombolysed. Fasting lipids were within the normal range. There were no cardiac risk factors apart from smoking.

In September 1995 the patient experienced a syncopal episode. An echocardiogram revealed a mass in the left atrium consistent with a left atrial myxoma. A coronary angiogram showed normal coronary arteries. Surgical resection of the myxoma was recommended.

In December 1995 the patient's CD4 count was $64 \times 10^6/l$, but apart from oral candidiasis there had been no HIV related problems since diagnosis. Two leading UK HIV physicians were asked if they considered surgery to be advisable. They estimated the patient's likely survival from HIV disease to be 1-4 years. The risks of major heart surgery had to be balanced against the likelihood of recurrent symptoms from the myxoma in the next 1-4 years. The patient and her physician agreed to proceed with surgery.

On 4 December 1995 the patient underwent surgical resection of a pedunculated left atrial mass. Histological examination confirmed a benign atrial myxoma. The procedure was uncomplicated and she was discharged from hospital 4 days later. Annual cardiac review including an echocardiogram has shown no evidence of recurrence up to the present time. She remains free from cardiovascular symptoms. Her HIV disease is managed with combination therapy that consists of stavudine, lamivudine, and efavirenz. Current CD4 count is $564 \times 10^6/l$ and viral load less than 50 copies/ml (Chiron bDNA v3.0).

Atrial myxoma is a rare tumour that is considered to be benign although recurrence and metastases have been described.¹ The myocardial infarction suffered by our patient may have been an embolic manifestation of the myxoma, and the normal serum lipids and normal coronary angiogram almost 4 years later would support this.

In 1995 expert opinion provided a very guarded prognosis for someone with a CD4 count of $60 \times 10^6/l$ who had been exposed to a single antiretroviral agent, zidovudine. Today

there would be less debate over the merits of such a surgical procedure in this scenario, and this case demonstrates the excellent outcome that can be achieved with major surgery despite profound immunosuppression. The proved benefits of HAART (highly active antiretroviral therapy) have made it unacceptable to deny major surgical interventions to individuals with HIV.

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The association between receptive cunnilingus and bacterial vaginosis

EDITOR.—We are puzzled by the surprisingly little, if any, serious work done to explain the epidemiological enigma of high prevalence of bacterial vaginosis (BV) in lesbians,¹ and the oft observed, but as yet unconfirmed association between BV and receptive cunnilingus in women in general.

In a detailed study of 17 consecutive lesbians attending the department of genitourinary medicine at the Royal Sussex County Hospital in Brighton, bacterial vaginosis was found in six women (35%). Of nine lesbians who practised receptive cunnilingus in the previous 4 weeks, six (67%) had BV. By contrast, no BV was present in all eight women who did not practise oral sex (table 1).

In a parallel prospective study of 256 consecutive heterosexual female patients attending the same department, 55 (21%) were diagnosed as having BV. Of 111 women who practised receptive cunnilingus in the previous 4 weeks, 41 (37%) had BV. Of 145 women who did not have oral sex, only 14 (10%) had BV (table 1). In both groups there was strong association between BV and receptive cunnilingus ($p < 0.001$).

The evidence associating bacterial vaginosis with oral sex is too strong to be ignored and repeatedly dismissed. The mouth is full of Gram positive and Gram negative organisms including *Bacteroides oralis* and, albeit in much smaller quantities, lactobacilli. These organisms are part of normal flora in the mouth, but are they normal to the vagina? Might the tiny amount of lactobacilli be enough to act as a phage which destroys the

Table 1 BV prevalence results

Lesbians	No of women	BV diagnosed
Total	17	6 (35%)
Practised receptive cunnilingus in previous 4 weeks	9	6 (67%)
Did not practise receptive cunnilingus	8	0
Heterosexual women	No of women	BV diagnosed
Total	256	55 (21%)
Practised receptive cunnilingus in previous 4 weeks	111	41 (37%)
Did not practise receptive cunnilingus in past 4 weeks	145	14 (10%)

endogenous healthy vaginal lactobacillus? In an interesting hypothesis, Blackwell described the possible effect of biochemical and microbial abnormalities in the vagina on BV recurrence.³ She also quoted Berger's description of concordant vaginal floras in lesbian couples, suggestive of a mechanical transfer of an infectious agent.³ Is it not possible for mouth organisms or hostile salivary enzymes to induce biological and microbial abnormalities in the vagina?

Furthermore, mechanical transfer of infectious agents in lesbian couples is most likely to occur via cunnilingus, a not uncommon practice among lesbians.

Cunnilingus is a common fact of sexual life. The dynamics of this practice vary considerably. If association between BV and oral sex is ever confirmed, would the degree of tongue penetration be a factor and should it be incorporated in the aetiology equation? Further and more extensive studies are certainly indicated.

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Is partner notification in the public interest?

EDITOR,—This ethical debate¹ calls for comment.

Why did the clinicians only suspect AIDS? Surely at the second attendance the diagnosis was clinically obvious. As well as continuing treatment of candidiasis and starting prophylaxis of *Pneumocystis carinii* pneumonia, was not treatment for AIDS indicated? For fear of court proceedings a specimen of blood untested or surplus to routine haematological tests could have been stored to confirm, if necessary, the clinical diagnosis. A perspicacious defence lawyer could make much of this in terms of doctor thoroughness, cautiousness, and thoughtfulness—on behalf of his client.

In terms of contact tracing the word "disclosure" occurs repeatedly. Surely the first thing an index case is told when his/her cooperation is sought is that under no circumstances will their name be divulged. The contacts, when attending, will be refused any information regarding who has named them and immediately assured that the same confidentiality will be maintained if their cooperation is called for in the contact tracing process.

Only when it becomes widely known in a clinic that such confidentiality is thoroughly pursued will counterproductive fears be eliminated. With understanding and cooperation it can be done.

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Sexual partner reduction and HIV infection

EDITOR,—We recently conducted a national urban random sample survey of 1400 men of sexually active age in the Dominican Republic to measure possible change in sexual behaviour. This sexual behaviour change (SBC) survey was prompted by results from the 1996 demographic and health survey, which found that 84.8% of a national random sample of Dominican men claimed that they had changed their behaviour in some way because of their fear of, or concern about, AIDS. The proportion of respondents reporting behaviour change such as becoming monogamous or reducing their number of sexual partners was about triple the proportion reporting condom adoption. In our SBC survey, 79% of respondents claimed to have changed behaviour because of concern about AIDS. A majority (52.2%) said they had become monogamous or reduced their number of sexual partners. This was followed by condom adoption (14.6%), only having sexual relations with a person they know (13.9%); avoiding relations with "prostitutes" (9.0%); or becoming abstinent (1.6%). A small proportion (2.8%) had not yet begun to have sexual relations. As with the Dominican DHS findings, we see that most answers are classifiable as behaviour change, as distinct from condom adoption. This follows a pattern found in recent studies in countries such as Uganda and Zambia. A recent review of findings from behavioural change surveys in 16 countries in Africa, Latin America, and the Caribbean shows that partner reduction is more often reported than condom adoption.¹ If sizeable numbers of men reduce their number of sexual partners, can this have significant impact on HIV infection rates? Urban HIV seroprevalence among the general or low risk Dominican population seems to have stabilised at the 1.9-2.0% level since 1995, according to the US Census Bureau. Recent studies that have modelled the impact of different interventions on HIV infection rates in east Africa suggest that reduction in number of partners can have a great impact on averting HIV infections, in fact greater than either condom use or treatment of STDs.^{2,3} Of course, impact of partner reduction on HIV infection rates would be espe-

cially strong where there is relatively high HIV seroprevalence among potential partners. In view of these modelling studies as well as population based surveys such as the two cited from the Dominican Republic, perhaps there ought to be greater equity in resource allocation between HIV/AIDS prevention programmes promoting behaviour change—such as monogamy/fidelity or at least reduction of number and frequency of change of sex partners—and far more familiar programmes that promote and provide condoms.

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Features of AIDS and AIDS defining diseases during the highly active antiretroviral therapy (HAART) era, compared with the pre-HAART period: a case-control study

EDITOR,—To assess the features of AIDS defining illnesses during the HAART era versus those observed before the introduction of HAART, the characteristics of 72 consecutive patients, diagnosed in 1997-9, were compared with those of 144 subjects randomly selected from the 436 patients diagnosed from 1985 to 1995, in a case-control study.

An impressive drop in AIDS diagnosis was seen shortly after the introduction of HAART, with only 38, 21, and 13 cases per ~1000 patient years observed in 1997, 1998, and 1999 respectively, versus a mean frequency >60 cases per ~1000 patient years, demonstrated during 1991-5. A tendency towards an increased incidence of female sex was shown in 1997-9 compared with 1985-95 (33.3% versus 27.1%), together with a rise of mean CD4+ lymphocyte count (86.8 (SD 99.4) versus 72.1 (93.7) cells ×10⁶/l), while an increase in the mean patient age was highly significant (39.8 (8.3) versus 34.6 (7.7) years; p<0.0001). When considering the exposure to HIV infection, drug abuse became significantly less important in the HAART era (p<0.05), while heterosexual transmission was notably increased (34.7% versus 13.2% of cases; p<0.0003). The distribution of AIDS defining disorders during the HAART era showed a tendency to a reduction in cytomegalovirus, cryptococcosis, mycobacteriosis, cryptosporidiosis, and HIV encephalopathy, while a relative increase in pneumocystosis, oesophageal candidiasis, wasting syndrome, tuberculosis, and non-Hodgkin's lymphoma was found; neurotoxoplasmosis and Kaposi's sarcoma were stable (table 1). However, while pneumocystosis, *Candida* oesophagitis, neurotoxoplasmosis, and Kaposi's sarcoma represented the four most frequent AIDS related events in both study periods, cytomegalovirus, HIV encephalopathy, cryptococcosis, and mycobacteriosis (which ranked fifth to eighth in