Television coverage of AIDS and transmission of the AIDS virus

The introduction of the government framework “The national strategy for sexual health and HIV” is necessary for attempts to prevent sexual causes of premature death and ill-health, at a time when transmission of HIV is at a record level and heterosexual intercourse is the most commonly reported mode of transmission. However, policy formation alone will not be effective in the fight against AIDS in the United Kingdom. Commentators have noted television coverage of AIDS has declined as transmission of HIV continues. The decline in television coverage of AIDS contrasts with the steady increase in transmission of HIV (see fig 1 and table on STI website).

The findings of my study are tentative, but hint that television coverage of AIDS has declined as transmission of HIV continues. This complements Nicoll and colleagues’ argument that AIDS campaigns (often televised) are likely to have reduced HIV transmission in the 1980s. Television is a rich source of information about AIDS, offering a powerful while unvalued medium for promoting AIDS awareness and safer sex to the general public. Given the current low level of media interest and the ceaseless increase of HIV transmission, it may be beneficial to formally evaluate a national media campaign on this important public health issue using quasi-experimental methods.

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High frequency of antibodies to syphilis and HIV in hepatitis C virus positive blood donors may reflect its sexual transmission in this region

Hepatitis C virus (HCV) infection is a great cause of concern because of the risk of chronicity and other sequelae. Studies on the prevalence behaviour pattern and sexual transmission of HCV infection among the population are required for formulating strategies to control spread of HCV. The aim of this study was to evaluate the occurrence of HCV in voluntary blood donors as they are known to be a high risk population for transmission of these infections agents. Comparison was made between the presence of syphilis, HIV, and HIV infection in HCV negative and positive blood donors to confirm these as markers or predictors of HIV infection in a high risk population which may reflect the transmission of HCV by a sexual route.

Voluntary blood donors (n = 3905) from New Delhi, India, were randomly recruited between August 2001 to March 2002 and were unpaired. These donors were screened for antibodies to VDRL, hepatitis B surface antigen (HBsAg), hepatitis C virus (HCV), and HIV using previously validated second generation ELISA kits. Data were analysed using the \( \chi^2 \) test. Odds ratio (OR) was used to measure strength of an association.
The antibodies to HCV were detected in 61 (1.56%), HBsAg in 109 (2.79%), VDRL in 132 (3.35%), and HIV in 40 (1.02%) donors. In HCV negative blood donors, VDRL was detected in 129 (3.35%), HBsAg in 106 (2.75%) and HIV in 31 (0.8%) donors, while in HCV positive blood donors HCV positivity increased significantly to nine (14.75%) OR (21.2) and VDRL and HBsAg reactivity was found 21.2, 1.48, and 1.82 times more respectively in HCV positive blood donors (table 1).

In conclusion, the high frequency of antibodies to syphilis and HIV in HCV positive blood donors may confirm this as a marker or predictor of HIV infection in a high risk population and may also reflect the risk of transmission of HCV by the sexual route, which seems to vary with the population studied.

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Self obtained samples for genitourinary infections

We assessed the concept of self sampling, as part of screening for sexually transmitted diseases, first in the early 1990s in a pilot study. The aim was to assess the validity and acceptability of the procedure as an alternative for the sex industry workers (or as a supplementary method between attendances), for those who are reluctant or unable to attend GUM clinics frequently. Microbiological techniques then were not as developed or as sensitive as today’s (PCR) tests. Since then, other studies reported on the feasibility and acceptability of self obtained samples. Since 1999, we have read with interest, the article published in STI regarding the diagnosis of chlamydia, gonorrhoea and trichomomas infections by self obtained low vaginal swabs. The techniques employed in the Australian study (patients obtaining swabs while sitting or standing) would allow less access to the genital tract or the originally proposed squatting positions. In our study, the patient was advised first by a female nurse on the squatting position and locating the cervix. She was re-advised on repeating the procedure and the attempt to take the swabs from the cervical surface. In our study, 86.7% of patients reported their ability to access the cervix (and, therefore, obtain high vaginal/cervical samples). The squatting position has the advantage of providing patients with the freedom to use both hands (one of which may be used to open the vulval lips). The technique is similar to that employed by women for self examination before the insertion of a cervical cap or for the detection of the intrauterine contraceptive device threads.

The recent escalation in the incidence of sexually transmitted infections, coupled with the increasing workload for GUM clinics is representing a challenge for adopting new ways in combating the spread of sexually transmitted infections. The exploitation of new ideas, methods, and technologies could be of benefit, especially in areas out of access to advanced laboratory investigations (remote and rural areas). It could also be used as a supplementary method to current medical care (between visits) in special patient groups (for example, adolescents’ and sex industry workers’).

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untreatable progressive multifocal leukoencephalopathy (PML) may improve and has very rarely been reported following HAART. However, CD4+ increase is also associated with inflammatory reactions to previously silent infectious agents, as well as aberrant immune phenomena.

Case report
A 27 year old HIV/HCV (hepatitis C virus) patient was observed in 1997 with a CD4+ count of 357 cells ×10⁹/l. HAART was started and maintained until 1999 when it was stopped at the patient’s request. On October 2001 he returned asymptomatic, with a CD4+ cell count of 34 ×10⁹/l and HIV-RNA 130 000 copies/ml. Stavudine + lamivudine + nevirapine were then started, together with trimethoprim-sulfamethoxazole. He experienced an optimal response (CD4+ count 159 ×10⁹/l, HIV-RNA <50 copies/ml on March 2002). One month later, the patient was admitted because of mental slowness, aphasis, ataxia, impairment of fine movements of the right arm, and hypostenia of the right leg. He was afebrile and laboratory tests showed WBC 5300 ×10⁹/l, RBC 4550 ×10⁹/l, eosinophils 8.3%, AST 369 IU/l, ALT 1446 IU/l, γ-GT 599 IU/l, PT 84%, raised total plasma IgE 330 IU/ml. Toxoplasma serology, HBsAg, HBsAb, and HAV-IgM were negative; Hbc-tgG and HAV-IgG were positive; and HCV-RNA was 172 ×10⁹ copies/ml (baseline 13 ×10⁹/l copies as at October 2001, before HAART). HAART was stopped and liver biopsy performed, showing chronic hepatitis with cholestasis, marked eosinophilia, parenchymal and perportal infiltrates of predominant lymphocytes, and plasma cells suggestive of allergic disease. Cranial magnetic resonance imaging scans revealed subcortical white matter lesions in both frontal lobes and internal capsule with faint peripheral enhancement after gadolinium contrast. Cerebrospinal fluid analysis was normal, fungal and bacterial cultures, cryptococcal antigen, and polymerase chain reaction for HSV-1/2, varicella zoster virus, Epstein-Barr virus, cytomegalovirus, Mycobacterium spp were negative, while JCV-DNA was positive; a cidofovir standard dose was initiated. Subsequently, progressive improvement was observed (fig 1) and PML stabilised.

Comment
We report a complex polymorphic immune restoration syndrome of PML (demonstrated also by JCV-PCR in contrast with previous reports) combined with the first case of liver damage related to delayed immune mediated hypersensitivity reaction to nevirapine. Several facts support an immunopathogenic role of aberrant immune recovery in this case: (i) these phenomena occurred together in concomitance with raising CD4+ T cell count under effective HAART; (ii) PML during HAART is exceptional; (iii) both PML during HAART and nevirapine hypersensitivity occurred during the first weeks of therapy in the case series reported so far; (iv) nevirapine hypersensitivity is frequent in conditions of hypersensitivity reaction to nevirapine. This underlines that pathogenic mechanisms and immunological factors associated with immune restoration diseases may be diverse and unexpected. Moreover, nevirapine hypersensitivity is immediate while this case of liver damage occurred after a substantial period on nevirapine, and concomitant elevation of γ-GT enzyme and increase in HCV replication. Therefore, it would have been very difficult to make the correct differential diagnosis with either late onset metabolic idiosyncrasy to nevirapine or relapsing HCV hepatitis without liver histology. Thus, avoiding liver biopsy in such cases may lead to an underestimation of the causative role of nevirapine.

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