S. Andersson [1], K. Godoy [1], R. Thorstensson [1], F. Dias [2], G. Biberfeld [1]
Evaluation of immunoassays for detection of HTLV-1/2 antibodies

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Background : A general screening of blood donors for HTLV-1/2 infection during one year from the beginning of 1994 has been initiated in Sweden.

Objective :To assess the sensitivity and specificity of commercially available screening assays for HTLV-1/2 antibodies.

Methods : *Serum panels (Swedish)* 500-628 unselected fresh blood donor sera, 400 unselected frozen blood donor sera, 12 selected HTLV-2 positive sera (From IVDUs. *West African (Guinea-Bissau)* 400 unselected frozen sera from medical and surgical in patients at the National Hospital, Bissau *(347 negative, 22 HTLV-1 positive and 31 ID (excluded)*, 79 selected HTLV-1 positive sera and 6 selected HTLV-2 positive sera. The performance of 5 different ELISA tests (see below) were evaluated.

Results : The *sensitivity* for HTLV-1 was 100 % for all assays. The Murex/Cambridge EIA detected all 18 HTLV-2 samples. The other 4 assays missed one HTLV-2 positive sample each after repeated testing (initially 1-4 false negative results). Organon missed one Swedish HTLV-2 positive sample, all other false negative HTLV-2 positive samples were from Africa.

The specificity (after repeated testing) :

	Abbott (1)	*Diagnostic (1/2)*	*Organon (1)*	*Ortho/Cam-bridge(1/2)*	*(Murex/Cam-bridge(1/2)*
Swedish blood donors (fresh)	100 %	99.0 %	99.7 %	100 %	99.6 %
Swedish blood donors (frozen)	100 %	99.2 %	99.0 %	N.D.	99.8 %
Patients from Guinea-Bissau	100 %	98.3 %	99.7 %	N.D.	97.7 %

Conclusion : The sensitivity for HTLV-1 and the specificity was high for all assays. The results indicate that HTLV-2 seropositive sera may give false negative results on some assays. Further characterization of the HTLV-2 seropositive samples with PCR and virus isolation is under way and may give more light to the results obtained. Evaluations of other assays for detection of antibodies to HTLV are ongoing and the results will be presented.

Xth International Conference on AIDS, Yokohama, Japan, 1994. Abstract Book, t. I, p. 133, PA. 0151.

Koya Ariyoshi [2], N. Berry [2], A. Wilkins [1], P. T. Ngom [1], R. S. Tedder [2], H. Wittle [1]
A study of viral load in HIV-2 infection in a rural community of West Africa

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Objectives : To determine HIV-2 proviral load in seropositive individuals in a rural village in Guinea-Bissau and to investigate the effects of aging and co-infection with HTLV-1, malaria and syphilis.

Methods : DNA samples from 88 subjects were investigated for quantitative PCR with utilising HIV-2 LTR primers and the external standard control made by CBL-22 infected C8166 cell line. Biotinylated primer were used to capture the ^{35}S dATP incorporated secondary PCR product in a quantitative radiometric assay. Sera were tested for TPHA, RPR and HTLV-1 (Fujirebio). HTLV infection was further examined by a nested PCR with *tax/rex* primers and *Taql/Sau3a* enzyme analysis of the product.

Results : 81/88 samples were positive by HIV-2 nested PCR (sensitivity = 92 %). The mean of HIV-2 proviral copy number ($1og_{10}$) per 10^5 $CD4^+$ cells in a group with low $CD4^+$ counts (< 200) was 16-fold higher than in a group with high $CD4^*$ counts (≥ 500) (means±S.D. 3.l5±0.71 and 1.95±1.15

respectively). 25 individuals were found to be co-infected with HTLV-1 by PCR and the enzyme analysis. Concordant rate between HTLV serology and PCR was 82 %. CD4 % was significantly higher in individuals with HTLV co-infection ($p < 0.05$) nonetheless HIV-2 viral load tends to be the higher in HTLV co-infected individuals especially in the elderly (≥ 60 years) (mean±S.D. 2.47±1.37 vs 1.37±1.08). The viral load was lower in the HTLV -ve elderly than in the young. No significant effect on viral load was seen with malaria or syphilis.

Conclusions : The result shows a possible enhancing effect of HTLV-1 coinfection on HIV-2 viral load despite the CD4 % being higher. An inverse association between HIV-2 viral load and age was seen, suggesting that longterm survival may be associated with low viral load.

Xth International Conference on AIDS, Yokohama, Japan, 1994. Abstract Book, t. I, p. 139, PA. 0174

Koya Ariyoshi [1], *Fatim Cham* [1], S. Rowland-Jones [2], F. Gotch [2], A. J. McMichael [2], H. Whittle [1]
Cytotoxic T Lymphocytes in HIV-1, HIV-2 and dually seropositive individuals

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Objectives : To investigate homotypic and heterotypic HIV CTL activities in HIV-1, HIV-2 and dually seropositive individuals.

Methods : Fresh PBMCs were collected from 4 HIV-1, 8 HIV-2 and 2 dually seropositive individuals with relatively high $CD4^+$ % or count. CTLs were restimulated with autologous PHA-blasts and fed with 10 % of lyrnphocult-T after a week of culture. CTL activities in week-1 and week-2 cultures were evaluated by a standard ^{51} Chromiurn release assay using autologous B-cell lines infected with recombinant vaccinias expressing HIV-l or HIV-2 *gag*, *pol* or *nef* proteins at three E :T ratio (60:1, 30:1 and 15:1). When specific lysis (%) against HIV r.V.V. was 10 % greater than control r.V.V. (VSC8) at two E :T ratios, the CTL was regarded as significant.

Results : Mean $CD44^+$ % of HIV-l, HIV-2 and dually seropositive group was 31.5 %, 29.4 % and 28 % respectively. Significant HIV specific CTL was demonstrated in 50 % (2/4) of HIV-1, 87.5 % (7/8) of HIV-2 and 100 % (2/2) of dually +ve individuals at week-2 of culture. Dua1 (HIV-1/-2) CTL response against *gag* and *pol* protein were seen in 2/2 and 1/2 dually +ve individuals. Heterotypic *gag* CTL was found in one of 7 (14.3 %) investigated HIV-2 +ve individuals whose HLA was A28, 30, B41 and 65 while heterotypic *gag* CTL was found in one of 2 investigated HIV-1 +ve individual whose HLA was A1, 66, B35 and 37.

Conclusions : HIV specific CTL was frequently demonstrated in HIV-2 and dually +ve individuals. Low frequency of heterotypic CTL in HIV-2 +ve individuals suggests that the majority of HIV-2 +ve individuals will not be protected from HIV-1 infection by CTL. Dually reactive CTL were found to be generated in dually seropositive individuals.

Xth International Conference on AIDS, Yokohama, Japan, 1994, t. I, p. 53, 165A.

Saïdou Diallo [1], B. Diouf [1], A. Pouye [1], M. Mbengue [1], M. F. Ndiaye [1], T. M. Diop [1], O ; Bao [1]
Tuberculosis in HIV infection in the internal medicine service of CHU Dakar

[1] Centre Hospitalier Universitaire de Dakar - HALD Dakar, Sénégal

Objective : To define the epidemiological and clinical aspect.

Methods : 42 tuberculosis patients were selectecd on the basis of bacterial and/or histological analysis among 28 cases and the positive therapeuty test rejecting Rifampicine in 14 patients.
The diagnosis or HIV infection was with ELISA and Western blot confirmation.
The comparison or the time groups HIV+ and HIV- was done by using CHI-2 and Fischer's Methods.

Results : Tuberculosis prevalence in the service is 5 % and for HIV infection 1.5 %. HIV infection prevalence in tuberculosis is 42 %. The patients are 19 seropositives and 25 seronegatives. The average age is 40.5 years among HIV+ and 29.4 among HIV-
Peritonis and lung localizations are more common among HIV+ patients respectively 59 % and 53 % of cases. On the contrary pleurisy localization is more common among the seronegatives (48 % of cases). Unifocal tuberculosis forms are especially found aamong HIV- (61 % of cases).
With antibacillus chimiotherapy we have registered 7 death among HIV+. All HIV- have evoluated favourably.

Discussions and conclusion : HIV infection widens the population of tuberculosis risk, usually among young and old individuals.
The anatomo-clinical forms of tuberculosis change from one study to another.
Outlung tuberculosis occurs early in the natural history of HIV infection when the immunodeficiency is moderate.
The association of HIV infection with tuberculosis complicates its prediction.

Xth International Conference on AIDS, Yokohama, Japan, 1994. Abstract Book, t. II, p. 172, PB. 0702.

Georges Diouf [1], A. Ouangré [1], Phyllis Kanki [3], Souleymane Mboup [2], R. Marlink [3], A. M. Coll-Seck [1]

Clinical and epidemiological profile of HIV-1 and HIV-2 infection in Dakar, Senegal

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[2] Laboratory Bacteriology-Virology (Le Dantec)
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Objectives : To determine the epidemiological differences between people living in an area where HIV-1 and HIV-2 exist. To determine the clinical profile of HIV-1 and HIV-2. To study natural history of HIV-2.

Methods : From July 1991 to June 1993 a cross-sectional study was conducted including all patients admitted for his first clinical examination in infectious Diseases, in Pneumophtisiology and in internal Medicine services of CHU of Dakar. A clinical, epidemiological and demographic form is filled out. Serology is done after consent.

Results : N = 3 849 ; 553 (14 %) were seropositive with 384 HIV-1 (10 %), 123 HIV-2 (3 %), and 46 HIV-1+2 (1 %).
Sex-ratio is : 3 for HIV-1 ; 1.3 for HIV-2 ; 2.3 for HIV-1+2.
Mean age is : 36 years for HIV-1 ; 41 years for HIV-2 ; 37 years for HIV-1+2.
Marital status : Single 31 % for HIV-1 ; 13 % for HIV-2 ; 38 % for HIV-1+2.
Married : 51 % for HIV-1 ; 58 % for HIV-2 ; 47 % for HIV-1+2.
Polygamous : 11 % for HIV-1 ; 21 % HIV-2 ; 11 % for HIV-1+2

Clinical signs	*HIV-1*	*HIV-2*	*HIV-1 vs HIV-2*
Weight loss > 10 %	66 %	54 %	p= 0.017
Fever > 1 month	51 %	37 %	p= 0.004
Asthenia > 1 month	53 %	40 %	p= 0.011
Diarrhoea > 1 month	41 %	37 %	p= 0.544
Herpes zoster > 1 month	2 %	2 %	p= 0.865
Oral candidosis	22 %	24 %	p= 0.203
Cough > 1 month	49 %	37 %	p= 0.020
Confirmed Tuberculosis	16 %	10 %	p= 0.102

Conclusion : Age distribution showed an earlier HIV-1 infection while HIV-2 infected people (6 patients aged > 65 years) are older. HIV-1 infection is more common among young patients and singles

than HIV-2 infection.
Although physical performances are the same at the first examination (for all viruses), the most described clinical manifestations are more frequently associated with HIV-1 than with HIV-2.

Xth International Conference on AIDS, Yokohama, Japan, 1994. Abstract Book, t. I, p. 150, PB. 0027.

Moustapha Gueye [1], C. Etchepare [1], A. Sy [1]
Training on AIDS trainers and community relays : the example of ENDA in Senegal

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Objectives : In order to extend geographically and carry on actions on AIDS sensitization, ENDA has been training relays who are able to spread information on AIDS within community-based (CB) groups in a permanent and culturally accurate way.

Methods : ENDA has been developing actions on AIDS sensitization in partnership with many CB organizations (women, youth, rural and urban communities…) wishing to be involved in spreading of information on AIDS and promoting behaviour change. We ask the most dynamic among them to identify inside their community. Literate and very motivated persons we will train. A guide-line for relays and a booklet for trainers are already designed.

Results : Eleven training sessions gathering 216 leaders in their communities, have been performed during a pilot phase from January 1993 to February 1994. Among relays are actors, educators and community leaders. They have in common their dynamism and involvement in their community. After the training session, eacn relay elaborates a programme of activities which aims at informing adequately their communities.
Up to now, the evaluation follow up (eight sessions has showed that the relays have acquired the knowledge provided in these sessions). The evaluation of other training sessions will be presented.

The relays forum : To intensify the fight against AIDS, concerted actions within the oommunity, valorization and capitalization of activities have been undertaken by relays. They have set up a relays forum in February 1994, to coordinate their activities. The results of which will be presented.

Conclusion : To reach behaviour change, the training of relays belonging to the communities themselves may be an appropriate method to vehicle messages culturally adequate. It will help identify new indicators to behaviour change…
The setting-up of a forum of relays seems to foster a dynamic capable of developing their initiatives and of strenthening their motivations.

Xth International Conference on AIDS, Yokohama, Japan, 1994. Abstract Book, t. I, p. 434, PD.0346.

Phyllis Kanki [1], Souleymane Mboup [2], K. Travers [1], R. Marlink [1], T. Siby [2], M. Essex [1]
Slower heterosexual spread of HIV-2 compared with HIV-1

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Objective : Based on similar virologic properties, human immunodeficiency virus type 2 (HIV-2) has been considered as infectious and capable of inducing AIDS as HIV-1. It is therefore important to understand the transmission properties of HIV-2 in order to more accurately predict this virus contribution to the growing AIDS pandemic. The measurement of HIV incidence is critical to our understanding the dynamics of both HIV-l and HIV-2 spread in populations at-risk and future design of vaccine efficacy trials.

Methods : Since 1985, we have prospectively studied 1 452 registered female prostitutes in Dakar,

Senegal, with sequential evaluation of their antibody status to HIV-1 and HIV-2. Incidence rates of HIV seroconversion were calculated annually and over the study period. Poisson regression models were used to describe temporal changes in HIV incidence and demographic variables associated with seroconversion.

Results : From 1985 to 1993, the overall incidence of HIV-2 was 1.11/100 person-years (pyo) (95 % CI 0.83-1.48), and also 1.11/100 pyo for HIV-1 (95 % Cl 0.83-1.48). In this limited analysis, risk-factors for infection differed between HIV-l and HIV-2. Over the 8-year period, the annual incidence of HIV-2 remained stable, despite higher HIV-2 prevalence. Over the 8 year period, the annual incidence of HIV-l dramatically increased, with a 1.4 fold increased risk per year and thus a 12-fold increase over the study period.

Conclusion : In our study population, the heterosexual spread of HIV-2 is significantly slower than that of HIV-l, which strongly suggests differences in the infectivity potential of these two related immunodeficiency viruses.

Xth International Conference on AIDS, Yokohama, Japan, 1994. Abstract Book, t. I, p. 283, PC. 0050.

Purnima Mane [1], P. J. Aggleton [1], C. I. Niang .[2], B. Setiadi [3], G. Hermandez [4]
Patterns and processes of sexual negotiation : initial findings from a multi-site study

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Objectives : Studies of the heterosexual transmission of HIV have pointed to tbe need to encourage the development of skills for sexual negotiation amongst womcn 50 as to reduce their vulnerablllty to HIV. This multisite study, supported by the Social and Behavioural Studies and Support Unit of WMO/GPA, arrns to examine patterns and processes of sexual negotiation between women and men in Indonesia, Mexico and Senegal.

Methods : Two samples of sexually active women are Includeci at each site - sex workers and non-sex workers. Data 18 being oellected using in-deptil interviews, focus groups, participant observation and participator>! group sessions. When possible, data is aiso belng collected froin maie partriers.

Results : Preliminary ftndings include (i) descriptions of gender relations in the ares of sex, especially with regard to protective behavlour, (ji) patterns and processes of sexual negotiation, (in) contextual factors affecting these pattems and piocesses, (iv) women's vlew of sexual negotiation and their role - present ard potential - in iL,
(v) won'en's awareness about HIV-1AIDS md levels of risk perception.

Discussion : ~e above findings wili be used to interrogate the concept of sexual negotiation, and to identify possible interventions that will empower women in the process, and,or whîch are oriented to women's neecis and real ides.

Xth International Conference on AIDS, Yokohama, Japan, 1994. Abstract Book, t. I, p. 378, PD. 0118.

W. Maskill, E. Belsey, H. Tamashiro, G. Gershy-Damet, *G. Liomba,* Souleymane Mboup, C. Wasi
Evaluation of HIV-1/HIV-2 antibody tests in developing countries

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Objective : To assess the sensitivity and specificity of HIV-l/HIV-2 ELISA and Simple/Rapid (S/R) assay under field conditions.

Methods : Eight enzyme-linked immunosorbent assays (ELISA's) and five simple/rapid (S/R) tests were evaluated under field conditions in four countries, Côte-d'Ivoire, Malawi, Senegal and Thailand. Approximately 400 routine serum samples were tested on three S/R assays at each of five peripheral laboratories in each country. All serum samples were retested by at least three ELISA's at a central laboratory. Samples reactive by an ELISA or S/R assay underwent Western blotting. Samples found to be Western blot positive according to WHO criteria were considered HIV antibody positive. Sera which were either negative by all S/R assays and ELISA's or which were Western blot negative were considered HIV antibody negative. The sensitivity, specificity and delta values were calculated for each test.

Results : Sensitivity estimates for S/R tests ranged from 86.6 % to 99.4 % and 80.4 % to 100 % for ELISA's.
Specificity varied from 96.4 % to 100 % for S/R assays and 86.9 % to 100 % for ELISA's.
Variation in sensitivity and specificity estimates appeared to be both test and country dependant and could not be solely attributed to laboratory technique. The delta analysis assisted in assessing these variations.

Discussion and Conclusion : The sensitivity and specificity of HIV-l/HIV-2, ELISA's and S/R tests preformed in field laboratories can in some cases approximate that achieved by reference laboratories. Efforts should be made to identify and correct factors responsible for reducing test performance.

Xth International Conference on AIDS, Yokohama, Japan, 1994. Abstract Book, t. I, p. 241, PB. 0392.

W. Maskill, H. Tamashiro, B. Belsey, Souleymane Mboup, *C. Wasi,* G. Liomba, G. Gershy-Damet
Field comparison of line-immunoassays with Western blot

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Objective : To determine under field conditions the accuracy of line-immunoassays (LIA's) for confrming seropositivity for HIV-l and HIV-2 as compared to the Western blot (WB).

Methods : Sera from four countries which were according to WHO WB interpretation criteria positive for HIV-1 (n = 650), HIV-2 (n = 35), both HIV-1 and HIV-2 (n = 63), negative (n = 571) or indeterminate (n = 47) were tested by two LIA's (Inno-Lia and Pepti-Lav). Results of the LIA's were interpreted according to the criteria provided by the test manufacturers.

Results : The Inno-Lia and Pepti-Lav tests showed a 98.3 % and 98.2 % agreement respectively with the WB for HIV-1 positive sera. Both LIA's showed 100 % agreement with the WB for HIV-2 positive sera. Both assays showed approximately only a 60 % agreement with the WB for sera positive for both HIV-1 and HIV-2 with the remaining sera being positive only for HIV-1. The LIA's found the majority of WB indeterminate sera to be negative, however both tests showed poor specificity due to WB negative sera showing indeterminate reactions.

Discussion and Conclusion : Although the Inno-Lia and Pepti-Lav tests show a high level of agreement of WB positive sera, find the majority of WB indeterminate samples non-reactive, and produce a lower

number of dually reactive sera, both assays produce a significant number of indeterminate reactions with WB negative sera. The occurrence of these indeterminate reactions may limit the ability of these tests to completely replace the WB.

Xth International Conference on AIDS, Yokohama, Japan, 1994. Abstract Book, t. I, p. 243, PB. 0401.

Ibra Ndoye [1], M. L. Sakho [1], E. Benga [1], M. Tardy [1], L. C. Sarr [1], I. Diaw [1], Souleymane Mboup [1]

The integration of STD/HIV services as effective and interest example for developping countries in AIDS prevention

[1] National AIDS Committee Senegal

Objectives : Demonstrate that integration of STD/HIV services is a necessary strategy which will be used in all poor ressources countries.

Methods : Since the outset of HIV epidemic in Senegal, STD and AIDS programmes are integrated. This country now constitutes one of the best examples of integrated HIV and STD services in the world.
— 80 % of components of STD and AIDS programmes are integrated in all levels of Primary health care
— 3 biannual reviews have attested the interest of such a choice.

Results : 240 trainers trained in STD and HIV services have developped their training for all medical and IEC manpower in 45 districts. Sentinel survey of HIV and STD shows in 1993 a prevalence of HIV (1 %) and syphilis (7.5 %) in pregnant women and respectively 12 % and 5 % in prostitutes compared to the results of 1986 : prevalence of HIV (0.8 %) and syphilis (12 %) in pregnant women and respectively 15 % and 25 % in prostitutes.
— 3 STD syndromic managment (urethral and vaginal discharge, genital ulcer) are tested and used in all medical centers without laboratory since 1988.
The integration of STD and AIDS has facilitate the introduction of AIDS matter in school programmes, has promoted the use of condoms and has cancelled the stigma of AIDS. All IEC actors : NGO, religious leaders etc... use integrated STD and AIDS messages to promote changing behaviour.

Discussion and conclusion : The positive results in prevention of AIDS in Senegal confirm that the example of AIDS and STD program of Senegal is an effective model of STD and AIDS services. This experience of 8 years in STD and HIV integrated services must to be promoted in all poor ressources countries, in account of the effectivenees the accessibility and the low cost of that choice.

Xth International Conference on AIDS, Yokohama, Japan, 1994. Abstract Book, t. II, p. 55, 497B.

Cheikh Ibrahima Niang [1]

Integration of the Dimba traditional organization in HIV/AIDS prevention in Kolda, Senegal

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Objective : To formulate a community based strategy for information and communication on HIV/AIDS prevention utilizing, as communication channel, the Dimba (a traditional organization which provides advice about reproductive and children health and which consisted of women who have experienced problems of infertility or miscarriages or have children who died at young age).

Methods : Participant observation with 2 Dimba groups in the city of Kolda, 62 in-depth interviews, a questionnaire administered to 250 women and 250 men randomly selected.

Results : Identification of socio-cultural factors that increase women's risk of HIV infection, identification of recommendations traditionaly advocated by the Dimba and that are congruent with

HIV/AIDS prevention behavior, an estimate 3 000-4 000 men and women from the community reached by the Dimba in 4 ritual community meetings organized to promote HIV/AIDS education and use of condoms.

Discussion and conclusions : Dimba type-organizations are in large areas in West.Africa (Mali, Bissau Guinea, Guinea...). More anthropologica1 studies need to be done in order to make then "visible" to Health official services and to integrate them in HIV/AIDS prevention.

Xth International Conference on AIDS, Yokohama, Japan, 1994, t. I, p. 36, 116D.

S. Rowland-Jones, J. Sutton, K. Aryoshi, T. Dong, F. Gotch, S. McAdam, S. Sabally, H. Whittle, A. McMichael

HIV resistance ?

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Objective : To determine whether HIV-seronegative commercial sex workers (CSW's) repeatedly exposed to HIV have HIV-specific cytotoxic T lymphocytes (CTL).

Methods : 20 seronegative Gambian CSW's, who had ben working at least 5 years, were studied. The peripheral blood mononuclear cells (PBMC's) of those found to have HLA B35 or B53 were stimulated in vitro with previously determined epitope peptides from HIV-1 and 2 restricted by these common Gambian HLA molecules. Assays for HIVspecific CTL activity were performed on days 7 and 14, and where it was detected, evidence of occult HIV infection was sought by viral culture and nested PCR. A control group with B35 at low risk of HIV infection was also studied.

Results : 3/6 women with B35 had CTL activity against one or more of the B35-resfricted peptides, which are cross-reactive between HIV-1 and 2. Two of these had detectable CIL three months later None had evidence of persistent HlV infection by viral culture or PCR.

Conclusions : The finding of HIV-specific CTL in seronegative and apparently uninfected women who have been highly exposed to HIV-1 and 2 may represent protective irnrnunity to HIV.

Xth International Conference on AIDS, Yokohama, Japan, 1994. Abstract Book, t. II, p. 86, PA. 0225.

Jean-Louis Sankalé, R. Sallier de la Tour, B. Renjifo, R. Marlink, S. Mboup, M. Essex, P. Kanki

Intra-patient variability of HIV-2 envelope V3 loop and disease progression

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Objectives : To study intra-patient variability of HIV-2 envelope in sequential PBMC samples from seropositive individuals and disease progression. To compare HIV-2 intra-patient V3-loop sequence variation to HIV-I. To evaluate the variation of the V3-loop sequences between PBMC viral DNA and cultured virus.

Methods : We used a hemi-nested PCR to amplify a 469 bp fragment containing all the V3 loop. The PCR product was purified, cloned and sequences of the entire V3 loop (102bp) were determined by chaintermination method. 5-11 clones were sequenced per sample. Sequential uncultured DNA samples were obtained from 2 asymptomatic females (A and D), a healthy seropositive male that experienced a drop in CD4 levels during the 54 months observation period (B), and 2 AIDS patients (C and E). We also obtained viral sequences from viruses isolated from 3 of these individuals.

Results : Sequence heterogeneity in a given sample ranged from 0 % to 1.4 % and increased with disease progression. The average intra-patient variation was 0.7 in asyrnptomatic individuals and 1.2 in

symptomatic ones. HIV-2 intra-patient V3-loop sequence heterogeneity showed a similar pattern but was less than in HIV-1. In 2 of 3 cases, the cultured virus was identical to the PBMC from which it was derived

Conclusions : These data indicate that intra-patient variability of the HIV-2 envelope V3 region in asymptomatic individuals may be relatively low. HIV-2 intra-patient V3-loop sequence variation is less than HIV-1. V3-loop sequence variation correlated with disease progression. Variation in cultured virus was higher in the individual with end-stage AIDS. Further studies are needed to evaluate the role of genetic variation in the pathogenesis of HIV-2 disease.

Xth International Conference on AIDS, Yokohama, Japan, 1994. Abstract Book, t. II, p. 41, 456A.

P. S. Sow [1 & 2], M. A. Faye [2], G. Diouf [2], A. M. Coll-Seck [2]

Opportunistic infections in HIV-2 infected patients in Dakar (Senegal)

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2 Infectious Diseases Department, Fann Hospital, Dakar, Senegal

Objectives : To identify the opportunistic infections in HIV-2 infected patients in Dakar. To compare clinical manifestations in HIV-2 infected patients with HIV-1.

Methodology : It is a case-control study from January 1986 to June 1993. Inclusion criteria were : patients with manifestations of HIV infection according to the clinical Bangui classification (WHO 1985) and serology positive in Western blot.

Results : 181 HIV-1 and 58 HIV-2 infected patients were enrolled in this study. The mean age of HIV-2 and HIV-1 infected patients is 39 years ± 9.95 (SD) and 33 years ± 9.17 (SD) respectively. The sex-ratio (male/female) is 3.2 for HIV-2 and 2.0 (or HIV-1. Opportunistic infections in these patients were : tuberculosis (HlV-2 : 24.1 %, HIV-1 : 39.7 %, $p < 0.05$> ; chronic diarrhea (HIV-2 : 74.1 %, HIV-1 : 63.5 %, p= 0.15) ; ora1 candidasis (HIV-2 : 79.3 %, HIV-1 : 87.8 %, p= 0.10) ; atypical pneumonia (HIV-2 : 31 %, HIV-1 : 29.8 %, p= 0.92) ; Kaposi sarcoma (HIV-2 : 5.1 %, HIV-1 : 5.5 %, p= 0.90) ; Herpes zoster (HIV-2 : 1.7 %, HIV-1 : 5.5 %, p= 0.20).

Conclusion : The classic opportunistic infections in HIV-1 patients are also seen in HIV-2 patients at the stage of AIDS. Only tuberculosis is more frequently seen in HIV-1 than HIV-2 patients. HIV-2 is not less lisky for opportunistic infections than HIV-1 at the stage of AIDS.

Xth International Conference on AIDS, Yokohama, Japan, 1994. Abstract Book, t. I, p. 127, PA 0128

P. S. Sow, Mame Awa Faye, B. P. Ndiaye, A. M. Coll-Seck

Psychological and social state for persons infected with HIV

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Objectives : Identify psychological, social and economic problems for persons infected with HIV in 2 services of Dakar University Hospital.

Methods : It concerned a prospective investigation based on a quantitative questionnaire related to all informed seropositive subjects for more than 2 weeks.

Results : 60 (sixty) infected persons with HIV agreed to participate to the investigation. For them the determination of serological status has been done in 91.7 % of cases during the disease and most of them declared not to agree having the test (91.7 %). In 51.7 % of cases, patients thought about a divine willingness. 25 % patients did not appreciate how they were informed. According to the behaviour, 46.7 % of patients had no intercourses since they knew they were seropositive whereas 20 % among them did not change their sexual behaviour. For some patients, infedility, non tolerance of relatives, condamnation by the society, reject were the main fears. Concerning the future, 68.3 % of patients had

projects particulary related to their work, whereas 24 % of them wished to get married and have children.

Conclusion : This investigation shows difficulties met by infected persons with HIV during the disease. Different strategies must be used to facilitate a positive gestion of HIV infection.

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H. Tamashiro, W. Maskill, B. Belsey, C. Wasi, S. Mboup, G. Gershy-Damet, G. Liomba
Field assessment of HIV antibody testing strategies not requiring the Western blot

Objective : To determine under field conditions the reliability of testing strategies which use various combinations of enzymes-linked immunosorbent assay (ELISA's) and/or simple/rapid (S/R) tests in place of the conventional ELISA-Western blot (WB) strategy.

Method : Sera from four countries (Côte-d'Ivoire, Malawi, Senegal and Thailand) were tested by ELISA's and S/R tests. Sera found reactive by ELISA or S/R assay were tested by WB. The data was analysed to determine which combination of ELISA's and,or S/R assays provided the same result as an ELISA-WB combination.

Results : None of the combinations of either 2 or 3 ELISA's or S/R's used to sequentially test sera found reactive by a previous test were shown b produce both 100 % sensitivity and specificity. However, 12 combinations of 2 ELISA's and 24 combinations of 3 ELISA's were shown to produce 100 % sensitivity, with 4 of the 12 and 8 of the 24 combinations producing > 99.0 % specificity. Combinations ol ELISA tests proved more reliable than combinations of S/R's.

Discussion and Conclusion : Following appropriate in-field assessment, combinations of ELISA tests can be selected that will routinely provide at a much lower cost, results that are as reliable as the ELISA-WB combination.

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P. Tuppin, J. P. Durand, P. Maison, G. Galat, A. Galat-Luong, D. Jeannel, G. de Thé
Increased risk for a second retroviral infection (SIV or STLV) for wild monkeys already infected by one retrovirus

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In Senegal, between 1981 and 1982, 215 monkeys were killed during a yellow fever control in Kedougou, and 177 were trapped between 1989 and 1991 in Sine Saloum. There were 221 patas monkeys (PM) and 171 african green monkeys (AGM). Sera were screened for SIV by ELISA assay (HIV-1 and HIV-2) and confirmed by WB using a SIV as antigen. For STLV, ELISA, IF assays and WB were used. SIV seroprevalence rates were 3.2 % for PM and 38.6 % for AGM, and for STLV, 22.2 % and 35.6 % respectively. In AGM an increase risk of seropositivity to SIV was associated with STLV positivity (RR =4.3, $p < 0.0001$), and in PM in Kedougou an increase risk was also found with being seropositive to STLV (OR=15.6 $p= 0.01$). These increase risk remain present after adjustment on area, sexe and age, suggesting a dependance of infection between these two endemic simian retroviruses in two species with different social and sexual behaviors. Such SIV-STLV coinfections represent a model for HIV-HTLV coinfections in humans.

Xth International Conference on AIDS, Yokohama, Japan, 1994. Abstract Book, t. I, p. 138, PA. 0170

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Abstract non disponible, ne figurant pas dans l'*Abstract Book*

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Abstract non disponible, ne figurant pas dans l'*Abstract Book*