

## ABSTRACTS

### SYMPOSIUM

*Preventing AIDS in Drug Abusers: Emerging Biological and Psychosocial Research*

Chair: James J. Sorensen, University of California, San Francisco, CA

Discussants: Edward R. Morales, Bayview Hunter's Point Foundation, San Francisco, CA; and Harry Haverkos, National Institute on Drug Abuse, Rockville, MD

**HIV INFECTION, ALCOHOL USE, AND MORTALITY AMONG IV DRUG USERS.** Don C. Des Jarlais. New York State Division of Substance Abuse Services, New York, NY; and Jo L. Sothoran and Samuel R. Friedman. Narcotic and Drug Research, Inc., New York, NY.

Because heavy alcohol use is known to impair immune function, it is reasonable to hypothesize that heavy alcohol use may act as a cofactor for the development of AIDS. We examined this hypothesis in a cohort study of 309 intravenous drug users (IVDUs) who had never sought treatment for ARC or AIDS; 156 were HIV seropositive and 153 were seronegative at the beginning of the study. Heavy alcohol use was not related to being seropositive at entry, nor was it related to the loss of T4 cells over time among HIV seropositives. Thus, there was no evidence for heavy alcohol use as a cofactor for the development of AIDS. Posing the question of whether HIV infection and heavy alcohol use act as cofactors for diseases other than AIDS provided a different perspective. Recently, there has been a dramatic increase in the number of deaths annually from nonpneumocystis pneumonia among IVDUs in New York City; deaths from nonpneumocystis pneumonia have increased from 15 in 1981 to 193 in 1985. The coincidence of time between this epidemic level increase in pneumonia deaths and the AIDS epidemic among IVDUs in the city strongly suggests that HIV infection and heavy alcohol use were risk factors for nonfatal pneumonia at entry into the cohort. Preliminary longitudinal findings also show both HIV infection and heavy alcohol use as predictors of fatal cases of nonpneumocystis pneumonia. These results suggest that heavy alcohol use and HIV infection can act as cofactors for fatal illness independent of surveillance-definition AIDS, and that treatment for heavy alcohol use should be provided for all HIV seropositive persons who require it.

**SEROLOGIC PATTERNS OF HEPATITIS AND HIV ANTIBODIES IN DRUG USERS.** W. Robert Lange and Frederick R. Snyder. National Institute on Drug Abuse Addiction Research Center, Baltimore, MD.

Intravenous drug users (IVDUs) are at risk for a variety of infectious diseases as a result of their lifestyle. Exposure to, and infection with, the hepatitis B virus (HBV), the delta agent or hepatitis D virus (HDV) and the human immunodeficiency virus (HIV), have received recent attention; however, the interaction between these agents and the po-

tential for one to modulate the clinical expression of another is just being examined. To explore whether exposure to HBV and/or HDV can affect the clinical course of HIV infection in IVDUs and to delineate whether prevention strategies aimed at the former two might benefit the latter, a sample of street heroin addicts in Baltimore, MD, was followed longitudinally. The enrolled study group (N=184) consisted to 144 (78%) males and 40 (22%) females; 97 (56%) were black and 76 (44%) were white. Fifty-five (29%) were HIV antibody positive on enrollment, and blacks were more likely to be seropositive than whites ( $\chi^2=26.79, p<0.00001$ ). One hundred sixty (86%) members of the sample had been exposed to HBV (antiHBc positive), 20 (11%) were chronic HBV carriers (HBsAg positive), and 14 (8%) were HDV antibody positive. There were no significant ethnic group differences relative to seropositivity for antiHBc, HBsAg or antiHDV, and there were no differences between gender for any of the serologic markers studied. Those in the youngest age group (20-24 years) were the least likely to be positive for HBV markers ( $\chi^2=9.84, p<0.05$ ), and the 25-29 age group had the highest HIV infection rate, which was 33% ( $\chi^2=12.431, p<0.01$ ). There was a significant association between HBsAg and delta ( $\chi^2=4.90, p<0.05$ ); however, there was no significant association between HIV and any of the other viral markers studied. All subjects were asymptomatic at the time of enrollment.

**AIDS PREVENTION WITH DRUG ABUSERS IN RESIDENTIAL TREATMENT: PRELIMINARY RESULTS.** James L. Sorensen, David R. Gibson, Carma Heitzmann and Roland Dumontet. University of California, San Francisco, CA; and Alfonso Acampora. Walden House, Inc., San Francisco, CA.

Drug treatment programs can be centers for AIDS prevention among addicts; however, AIDS prevention techniques must first be developed, evaluated and disseminated. Written AIDS-prevention information may help but is not sufficient to change addicts' risk of HIV infection. We investigated the impact of small-group AIDS education for intravenous drug abusers completing residential treatment. Fifty subjects receiving 6-hour risk-reduction training were compared with 50 who received brochures only. The study employed a pre-post-followup design, and followups occurred 6 and 12 months after the intervention. The intervention included lecture, discussion, role-playing of high-risk situations, and use of a new videotape featuring intravenous drug users (IVDUs) with AIDS. Measures assessed knowledge and attitudes about AIDS, and the behaviors that put subjects at risk for HIV infection. Results indicated that groups were well-attended and popular, measurement was adequate, and the intervention changed knowledge, but not the sexual behaviors that put the subjects most at risk. Attendance at group sessions averaged 91%, and client satisfaction was greater in the experimental group. Cronbach's alpha showed adequate internal consistency with some, but not all, measures of attitude toward risk. Experimental group