# Risky Sex Behaviors in HIV-Positive Adults Studied

BY SUSAN LONDON
*Contributing Writer*

MEXICO CITY — About one-third of HIV-positive adults have recently engaged in sexual behavior that could put others at risk for infection, but the factors associated with such behavior differ for women, heterosexual men, and men who have sex with men, according to a new study.

"We have set out to deliver a small contribution to understanding sexual risk behavior among men and women living with HIV, as we believe this is an important contribution to support them, both in preventing onward HIV transmission as well as in improving their sexual and reproductive health," lead author Christiana Nöstlinger, Ph.D., said at the International AIDS Conference.

The cross-sectional study was conducted at 16 HIV treatment sites in 13 European countries. The investigators developed an anonymous questionnaire on factors potentially affecting sexual risk and protective behavior and administered it to consecutive individuals visiting the treatment sites in 2007. The investigators also analyzed the results of focus group discussions conducted among HIV-positive individuals, said Dr. Nöstlinger, head of health promotion at the Prince Leopold Institute of Tropical Medicine, Antwerp, Belgium.

The response rate was 39%, yielding a sample of 1,212 respondents. About 24% were women, 18% were heterosexual men, and 58% were men who had sex with men. Their median ages ranged from 38 to 43 years.

About 30% of women, 25% of heterosexual men, and 37% of men who had sex with men reported at least one instance of sexual risk behavior (unprotected vaginal or anal intercourse) in the previous 6 months, a significant difference, Dr. Nöstlinger reported.

In bivariate analyses, women were significantly more likely to have engaged in sexual risk behavior if they were younger, used marijuana, wanted a child, or had a main partner who was also HIV positive.

Heterosexual men were significantly more likely to have had risky sex if they had less education, had been HIV positive for a shorter period of time, or had an HIV-positive main partner, whereas they were significantly less likely to have done so if they had higher levels of anxiety or stress, according to Dr. Nöstlinger.

Finally, men who had sex with men were significantly more likely to have engaged in sexual risk behavior if they were younger, had a job, used erection-enhancing medication or recreational drugs, were not on highly active antiretroviral therapy, had an HIV-positive main partner, or had greater perceived satisfaction with sexual desire.

In a multivariate analysis, respondents were significantly less likely to have engaged in risky sexual behavior if they had a detectable viral load versus an unknown one (odds ratio, 0.35), if they intended to use condoms at the next sexual encounter (odds ratio, 0.58), and if they had peers or partners who supported condom use (odds ratio, 0.83).

The findings, which are similar to those of other studies on risk behavior, suggest that "sexual risk behavior in different target groups is associated with quite different factors that act as mediators, and intervention strategies should take these mediators into account," Dr. Nöstlinger commented. For example, greater integration of HIV care with reproductive health services may be needed for HIV-positive women who want children.

"Counseling strategies should also target the variables that have been shown to lead to behavior change, such as intention to use condoms or peer norms related to condom use," Dr. Nöstlinger advised. She reported that she had no conflicts of interest in association with the study. ■

# *Kaposi's Incidence Shows Rapid Rise and Fall Over 3 Decades*

BY BRUCE JANCIN
*Denver Bureau*

KYOTO, JAPAN — The incidence of Kaposi's sarcoma among American men jumped more than 30-fold in the 1980s with the AIDS epidemic, peaked around 1991, and then declined rapidly in concert with the introduction of highly active antiretroviral therapy, according to a study involving 12,114 cases of KS and other forms of cutaneous soft-tissue sarcoma.

This pattern held true for both white and black men. Whites led the rate increases during the 1980s, but Kaposi's sarcoma (KS) rates among black American men have exceeded those in white men since the mid-1990s. Only among men more than 70 years old, for whom the classic form of KS predominates, has the KS rate remained higher in whites, said Panta Rouhani of the University of Miami.

These were among the central findings of what she described as the first population-based study examining the epidemiology of KS in the United States during the last 3 decades. The study, conducted while she was at the National Cancer Institute, involved cases of KS and other forms of cutaneous soft-tissue sarcoma (CSTS) that were diagnosed from 1978 to 2004 in 13 NCI Surveillance, Epidemiology and End Results (SEER) registries.

CSTS is a heterogeneous collection of mesenchymal neoplasms accounting for less than 1% of malignant tumors. Their etiology and incidence are poorly understood. They are classified histologically according to 2002 World Health Organization criteria.

The incidence of CSTS was 24.4 cases per 1 million person-years. KS—by far the most common form of CSTS worldwide—accounted for 71% of cases, followed by dermatofibrosarcoma protuberans (18%), malignant fibrous histiocytoma (5.3%), leiomyosarcoma (2%), and angiosarcoma (1.6%), Ms. Rouhani said at an international investigative dermatology meeting.

**The male:female ratio started at 3:1, skyrocketed to 75:1, and fell to about 10:1.**

**MS. ROUHANI**

All four types of KS are associated with human herpesvirus-8 infection: HIV-associated KS, endemic KS in patients from Central Africa, transplant-related KS, and the classic form of KS found predominantly in elderly individuals of Mediterranean ancestry.

The overall incidence of KS during the study years was 17 cases per 1 million person-years. The male:female ratio was 25.5:1 overall, but it started at 3:1 in 1978-1980, skyrocketed to 75:1 in the late 1980s, and fell to about 10:1 in the early 2000s. This striking male predominance involved both the HIV-related and classic forms of KS, Ms. Rouhani said at the meeting of the European Society for Dermatological Research, the Japanese Society for Investigative Dermatology, and the Society for Investigative Dermatology.

The dramatic rise of KS in the 1980s and its fall in the 1990s were observed not only in men aged 20-59 years but also in those aged 60-69. This older group is less commonly recognized as being at high risk for HIV-associated KS, although the SEER data demonstrate that indeed they are, she said. ■

# Multicentric Castleman's Disease Increasing in HIV

BY SHARON WORCESTER
*Southeast Bureau*

CHICAGO — The incidence of multicentric Castleman's disease is increasing among patients with human immunodeficiency virus, including those who have access to highly active antiretroviral therapy, Mark Bower, Ph.D., reported in a poster at the annual meeting of the American Society of Clinical Oncology.

Also called angiofollicular or giant lymph node hyperplasia, multicentric Castleman's disease is an atypical lymphoproliferative disorder characterized by the growth of tumors in lymph node tissue. It is causally related to infection with human herpesvirus-8 (HHV-8), and patients are at increased risk of developing a malignancy, such as non-Hodgkin's lymphoma.

In a prospective cohort of nearly 10,997 HIV-positive patients with more than 56,000 patient years of follow-up, Dr. Bower and his coauthors calculated that the overall event rate for multicentric Castleman's disease was 4.3 per 10,000 years of patient follow-up. They reported:

- From 1983 to 1996 (the era before highly active antiretroviral therapy [HAART]) the incidence was 2.3 per 10,000 years of patient follow-up.
- From 1997 to 2001 (the initial HAART era) the incidence was 2.8 per 10,000 years of patient follow-up.
- From 2002 to 2007 (the HAART era) the incidence was 8.3 per 10,000 years of patient follow-up.

The increase over time was significant, but was not associated with gender or prior AIDS, noted Dr. Bower of Chelsea and Westminster Hospital, London. In contrast, the incidence of Kaposi's sarcoma (also causally related to infection with HHV-8) is greater in men, and has decreased with improved immune function and HAART availability.

For the study, plasma HHV-8 DNA levels were measured in 24 HIV-positive patients with newly diagnosed multicentric Castleman's disease, 72 with newly diagnosed Kaposi's sarcoma, 74 with newly diagnosed lymphoma, and in 53 HIV-positive controls with none of these diagnoses.

On multivariate analysis, increased risk of multicentric Castleman's disease was associated with nadir CD4 cell count above 200/mm$^3$, increased age, no previous HAART exposure, nonwhite ethnicity, and shorter HIV duration.

A higher proportion of patients with multicentric Castleman's disease had detectable plasma HHV-8 DNA levels at diagnosis, compared with Kaposi's sarcoma patients and lymphoma patients (83% vs. 35% and 3%, respectively). The levels also were higher in patients with newly diagnosed multicentric Castleman's disease (41,000 copies/mL), compared with Kaposi's sarcoma patients (3,500 copies/mL).

In an additional analysis involving the three main HAART drug classes, only nucleoside reverse transcriptase inhibitors were associated with decreased incidence of multicentric Castleman's disease.

The incidence of multicentric Castleman's disease is increasing despite the availability of HAART, and it appears that comparatively well-preserved immune function, increased age, nonwhite race, a short known duration of HIV infection, and no HAART use predispose HIV patients to development of the disease, according to the investigators.

Multicentric Castleman's disease appears to occur more often in older HIV-positive patients with well-preserved immune function, Dr. Bower noted, adding that the role of HHV-8 appears to be different in this disease and Kaposi's sarcoma.

Additional investigation is required to explore the cause of the increased incidence of this disease, he said. ■

Pages 36a—36b