

Poster presentation

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## Geographic variation of the prevalence of Kaposi's sarcoma-associated herpesvirus and risk factors for transmission in women from 8 countries in four continents

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Transmission routes of Kaposi's sarcoma-associated herpes virus (KSHV) in the general population are poorly understood. Sexual transmission appears to be common in homosexual men, but heterosexual transmission has not been clearly documented. This study aims to estimate the prevalence of KSHV in the female general populations of Argentina, Colombia, Costa Rica, Nigeria, Spain, Vietnam, Thailand and Korea to explore geographical variation and potential heterosexual transmission. Samples and questionnaire data were available from a study organized by the International Agency for Research on Cancer (IARC) to estimate the prevalence of distinct sexually transmitted infections. The study includes 10,963 women from 10 centers with questionnaire information available on socio-demographic, reproductive and sexual lifetime experiences, smoking habits. HPV DNA detection was previously measured. Antibodies against KSHV encoded K8.1 and orf73 were determined. Prevalence of antibodies to any of the two antigens k8.1 or orf73 was 13.9 percent with an important geographical variation (range = Nigeria 46%–3.8% in Spain). Antibodies increased with increasing age particularly in high prevalent countries such as Nigeria, Colombia and Costa Rica. KSHV was not related

to education, age at first sexual intercourse, number of sexual partners, number of children, patterns of use of oral contraceptives or presence of cervical HPV DNA. A decreased prevalence was observed with increasing number of cigarettes smoked per day ( $p = 0.000$ ).

The study provides reliable and comparable estimates of KSHV in diverse cultural settings across four continents and provides a powerful indication of absence of heterosexual transmission of KSHV.