Cervical squamous intraepithelial lesions in HIV-infected women: prevalence, incidence and regression. European Study Group on Natural History of HIV Infection in Women


OBJECTIVES: To assess the impact of HIV-related immunodeficiency and antiretroviral treatment on the occurrence and evolution of abnormal Papanicolaou tests. STUDY DESIGN: Cohort of 485 HIV-infected women with a known date of infection, enrolled during May 1993-April 1998 in 23 centres (gynaecology, infectious disease or STD clinics, or drug treatment centres) in 12 European countries; in 21 centres, follow-up was performed every 6 months (median follow-up: 2 years). METHODS: Human papillomavirus (HPV) was detected at inclusion by Southern blot and PCR. The prevalence of squamous intraepithelial lesions (SIL), the incidence of SIL and regression from low-grade SIL were studied according to CD4 count after controlling for HPV detection results. RESULTS: Compared with women with CD4 cell counts > 500 x 10(6)/l, women with CD4 cell counts < 200 x 10(6)/l had a twofold increase in both prevalence and incidence of SIL and in non-regression from untreated low-grade SIL; in addition, these women had a lower response rate to treatment of high-grade cervical intraepithelial neoplasia. The increase in SIL incidence associated with a low CD4 cell count was significant in women not receiving antiretroviral treatment (relative risk, CD4 cell count 200-499 x 10(6)/l, 1.9; CD4 cell count < 200 x 10(6)/l, 2.9; CD4 cell count > 500 x 10(6)/l, reference), whereas it was less marked and not statistically significant in treated women. CONCLUSIONS: Severe HIV-related immunodeficiency strongly increases the risk of occurrence of SIL; antiretroviral treatment may reduce this risk, probably by restoring or at least preserving immune function.