Risk of being seropositive for multiple human papillomavirus types among Finnish and Ugandan women

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Abstract

Although infections with multiple human papillomavirus (HPV) types have been reported widely, more information is needed on the occurrence of the different types. We determined the distribution of seroprevalences to multiple HPV types in Finland and Uganda to compare the epidemiology of the different HPV types in the 2 populations. Serum samples were obtained from 2784 Finnish and 1964 Ugandan women (mean ages 22 y and 25 y, respectively) of whom 44% and 57%, respectively, had antibodies to at least 1 of the 7 HPV types (6, 11, 16, 18, 31, 33, 45) tested ($p < 0.001$). Multiple HPV antibody positivity was common. HPV45-seropositive Finns had a higher risk of having antibodies to other high-risk HPV types: HPV18 (odds ratio (OR) = 10.9), HPV31 (OR 6.1), HPV33 (OR 12.2), than their Ugandan counterparts: HPV18 (OR 3.4), HPV31 (OR 2.2), HPV33 (OR 3.3). Increased estimates for being double antibody-positive were also noted among HPV18- and HPV16-seropositive women, but there were no major differences between HPV16-seropositive Finns and Ugandans. In addition to biological and behavioural factors, iatrogenic and societal factors (screening vs no screening) may also result in the different occurrence of infections with the high-risk HPV types in Finland and Uganda.