Condoms Found to Prevent HPV Transmission

BY MARY ANN MOON Contributing Writer

omen whose sexual partners consistently used condoms were 70% less likely to acquire genital human papillomavirus infection than were those whose partners did not, in a prospective study specifically designed to determine whether condoms prevent HPV transmission.

"Even women whose partners used condoms more than half the time had a 50% risk reduction, as compared with those whose partners used condoms less than 5% of the time," reported Dr. Rachel L. Winer and her associates at the University of Washington, Seattle.

Several previous studies have suggested that condom use doesn't reduce the risk of HPV infection in women. Even though these studies were cross-sectional and were not explicitly designed to evaluate condom use, opponents of birth control have seized on those results as ammunition in their attack on condom use. They've pressured the Food and Drug Administration to warn the public that condoms fail to prevent STD transmission, Markus J. Steiner, Ph.D., and Dr. Willard Cates Jr. said in an editorial comment accompanying this report.

In contrast to those previous studies, the prospective, longitudinal study by Dr. Winer and her associates "was designed to evaluate more accurately the temporal relationship between condom use and HPV infection," the researchers said (N. Engl. J. Med. 2006;354:2645-54).

They assessed 210 healthy female students aged 18-22 years who had never had vaginal intercourse or who had had first intercourse with a single male partner within the preceding 3 months. The subjects completed a Web-based diary every 2 weeks concerning their sexual behavior and underwent gynecologic examination that included HPV testing every 4 months.

"Evidence suggests that computer-assisted questionnaires yield more truthful reporting of sensitive behavior than do face-to-face interviews," the investigators noted.

During a mean follow-up of 34 months, the subjects' diary data were 91% complete. The 12-month cumulative incidence of a first HPV infection after first intercourse was 37%.

Women whose partners used condoms 100% of the time were 70% less likely to acquire HPV infection than those whose partners used condoms less than 5% of the time, after the data were adjusted to account for the number of new partners the women had and the estimated number of previous partners the men had.

A linear dose-response effect was seen, in which incident HPV infection decreased as the percentage of time a condom was used increased.

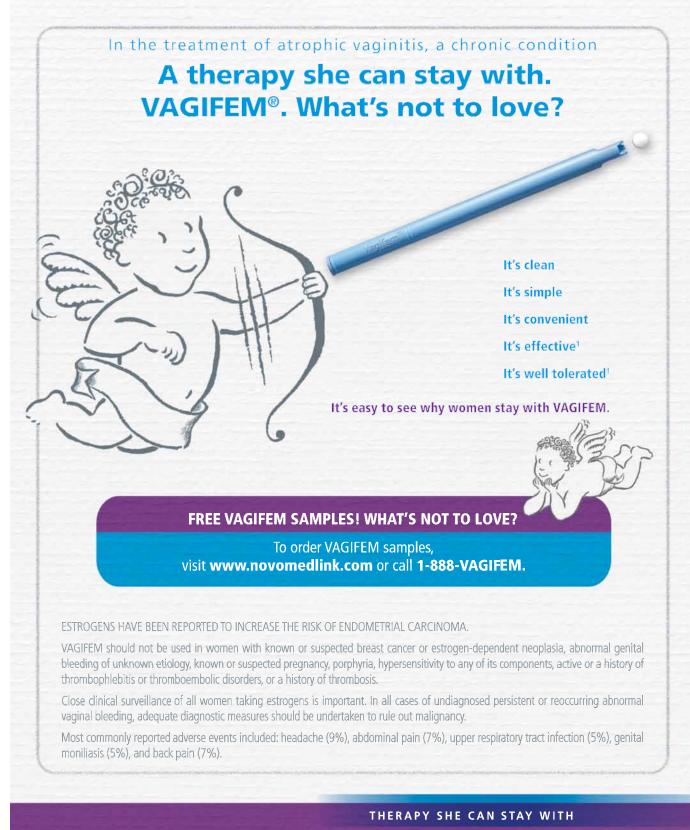
A similar inverse association was noted between the frequency of condom use and the incidence of cervical squamous intraepithelial lesions. No incident lesions were detected in women who reported 100% condom use, compared with 14 incident lesions found in women whose partners used condoms less consistently or not at all.

"This trend is consistent with previous data indicating that condom use by their male partners protects some women against high-grade cervical neoplasia and invasive cervical cancer," Dr. Winer and her associates said.

Of note was the finding that among couples with 100% condom use, those who reported having some genital skin-toskin contact had a similarly low incidence of HPV infection as did those who avoided all genital skin-to-skin contact. This suggests that brief episodes of skin-to-skin genital contact "are not particularly efficient for male-to-female HPV transmission," the researchers added.

The newly sexually active women in this study "reported a yearly median number of instances of intercourse (48) and a yearly median number of new partners (1) that were similar to those reported in a large national survey of a random sample of women of a similar age," indicating that these results are somewhat generalizable. The results may not apply to older women or to those of lower socioeconomic status, however.

In their editorial comment, Dr. Steiner and Dr. Cates of the Institute for Family Health at Family Health International, Research Triangle Park, N.C., said that people can now be assured that condom use can reduce the risk of most STDs, including HPV (N. Engl. J. Med. 2006;354:2642-3). ■





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