Overall, Postmenopausal Use of Combined Hormones Is Not Associated with Increased Risk of Cervical Cancer

Postmenopausal women who take hormones combining estrogen and progestin have cellular abnormalities detected in the cervix more frequently than nonusers of hormone therapy do, but the risk of precancerous lesions and cervical cancer does not differ between users and nonusers, according to a report based on six years of data from the Women's Health Initiative.1

Unmarried women, particularly those who are sexually active, have a significantly elevated risk of developing precancerous abnormalities or cervical cancer.

The Women's Health Initiative enrolled nearly 200,000 postmenopausal women aged 50–79 in 1993–1998, of whom about 17,000 participated in a clinical trial of oral estrogen plus progestin. To be eligible for participation in the hormone trial, a woman had to have a uterus; have no history of breast, endometrial or nonmelanoma skin cancer, and have no history of other cancers (which are not precancerous) were detected no abnormalities or only low-grade abnormalities. Participants who had a Pap smear at baseline or in the previous year that had given birth.

After identifying characteristics that were significantly older than others (63 vs. 62 years) and had a lower waist-to-hip ratio; they had experienced menarche at an earlier age and had first given birth at a later age. The two groups did not differ with respect to other characteristics that may be risk factors for cervical cancer. In both groups, the majority of women were white, were married (or living as married) and had had at least some postsecondary education. Three-quarters of women had never used hormone therapy, and fewer than one in 10 were using it when they entered the study. Half had never smoked, and one in 10 were current smokers; two-thirds reported that they drank alcohol, and half of those said that they had no more than one drink a week. The majority of women had given birth.

During follow-up, the annual incidence of any new cellular abnormality was significantly higher among women who had had an abnormal result at baseline (653 per 10,000 person-years) than among those who had not (146); the same was true for the incidence of high-grade (precancerous) lesions and cervical cancer. Women taking combined hormones had a significantly higher annual incidence of new abnormalities (179 per 10,000 person-years) than those in the placebo arm of the trial (130), and sexually active unmarried women had a higher incidence (20 per 10,000 person-years) than both unmarried women who were not sexually active (11) and married women (live).

After identifying characteristics that were significantly related at the univariate level with the risk of any abnormalities during the follow-up period, the researchers conducted multivariate analyses to determine which ones had independent associations. According to these calculations, the risk of abnormal cervical smear results was significantly elevated among unmarried sexually active women (hazard ratio, 1.4), women who had been younger than 30 at first birth (1.7) and users of hormone therapy (1.4). Over the six years of follow-up, 54 women developed high-grade lesions or cervical cancer. Results of multivariate analyses identified only one significant predictor of this outcome: marital status and sexual activity. Unmarried women had a higher risk than married women of developing precancerous lesions or cancer; the elevation in risk was greater for those who were sexually active (hazard ratio, 3.5) than for those who were not (2.3). The researchers speculate that these findings reflect unmarried women’s increased chances of having new sexual partners and being exposed to human papillomavirus. However, the study did not gather sufficient information about women’s sexual history for a detailed examination of its relationship to the risk of high-grade abnormalities or cervical cancer.

The researchers point out that their results “are generalizable to postmenopausal women who have recently had a normal cervical smear or a smear with low-grade abnormalities, but they are not applicable to postmenopausal women who have never been screened or have not recently been screened.” Despite the study’s limitations, the investigators conclude that “sexually active unmarried elderly women may benefit from continued cervical cancer screening.”—D. Hollander

REFERENCE