



Breaking News



Breaking News Highlight: Canadian Study of Conventional Pap Smears

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When the newspaper and press releases were published several weeks ago on the article out of Canada by Mayrand and colleagues, I was reminded of a similar headline-grabbing study in 2002. Information on the first phase of the Women's Health Initiative (WHI) trials on hormone therapies was released, and the headlines literally shouted "a 25% increase in breast cancer and no benefit for prevention of coronary heart disease." We had to wait two weeks for the publication of the JAMA article before we could look critically at the complete data. We now know that the absolute risk of breast cancer in the group with combined estrogen and progesterone is only slightly increased, and that it is actually lower in the group that received estrogen alone. Likewise, we know that there may be some coronary artery protection depending on the age of the woman at the time the hormone therapy is started. The press and media got ahead of themselves in trying to interpret the data.

The same is true for the Mayrand study. HPV testing has been touted as much more sensitive for CIN 2 (94.6%) than Pap smear testing (55.4%). The headlines didn't mention that the Canadian study was done comparing HPV DNA testing with conventional Pap smear tests, not liquid-based tests. The clinical reality is that over 90% of Paps done in the United States are liquid-based tests, not conventional smears. A study of greater clinical relevance and utility would have been one comparing HPV testing to liquid-based Pap testing. So while the comparison of HPV testing to conventional Pap smears is mildly interesting, it does not reflect current practice. And for good reason—the sensitivity and sample adequacy of liquid-based Pap testing is greater than the conventional smear, which is why most clinicians and laboratories have adopted it.

Similar data have been published before. Unlike the way the WHI trials were released, this time we had the data to review immediately. When you get a chance to look at the article, pay particular attention to Table 2. Here you will find that the results are compared in two groups for end-point assessment: "liberal" and "conservative" (no, not red or blue). The liberal group represents the end point of any biopsy showing CIN 2 or greater. This is the standard for evaluating outcome in the United States and Western Europe, specifically a colposcopic biopsy that reveals CIN 2. The conservative group in the study is a subset of the liberal group, which was redefined if there was a finding of CIN 2 in a LEEP specimen. If you look at the "liberal" group definition, there are virtually no differences between the sensitivity of Pap smear and HPV testing, yet the headlines only presented the "conservative" group results.

There are other areas to appreciate in a review of this article. One is the study sample size. Because the incidence of cervical abnormalities is generally low, a much larger sample size is needed to have significant power to draw statistically valid conclusions. Based on an incidence of CIN 2 of 0.5%, two or

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Dr. Thomas F. Purdon is a recent past-president of the American College of Obstetricians and Gynecologists (ACOG), as well as past-president of the advocacy group Ob-Gyns for Women's Health. He was previously on the governing board for the Jacobs Institute for Women's Health. His research contributions have been in the areas of hormone therapy, estrogen therapy in surgically induced menopausal women, and dysfunctional uterine bleeding for the Surgical Treatment Outcomes Project. Special interest areas include management of abnormal uterine bleeding, hysteroscopy, and endometrial ablation. Dr. Purdon was an ACOG representative to the 2001

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three times the number of participants would be needed. In the same issue of the Journal, Dr. Carolyn Runowicz had some interesting points on sensitivity versus specificity and the positive predictive value of Pap tests. Finally, liquid-based Pap tests are the standard of screening in the United States, and it is important to remember that liquid-based cytology has been shown to be significantly more sensitive than conventional Pap smear tests for detection of high-grade lesions in head-to-head comparisons. We are continuing to learn how to best apply the HPV testing and, as with hormone therapies, studies are ongoing.

ASCCP Consensus Guidelines Conference held in Bethesda, Maryland.

Given his life-long commitment to improving health outcomes for women, Dr. Purdon speaks frequently to the national medical community on the management of abnormal uterine bleeding, risk assessment strategies for breast cancer, and the continuing controversy over hormone therapy. He also serves as a consultant for United Community Health Centers, a community-based group of primary care clinics in southern Arizona that serves women of all socioeconomic levels.

Dr. Purdon was recently chosen as one of the "Best Doctors in Tucson," 2005–2006, by Best Doctors, Inc. and as published in Tucson Lifestyle magazine, and Best Doctors in America 2007–2008. He is frequently asked to speak and conduct surgical teaching sessions on endometrial ablation in the United States as well as in Mexico and Central and South America.

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