THE BEIJING COCHRANE WORKSHOP ON CERVICAL CANCER PREVENTION: CYTOLOGY VERSUS HPV-BASED CERVICAL CANCER SCREENING

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At the Cochrane Workshop on Cervical Cancer Prevention, which took place during the 24th Conference of the International Papillomavirus Society (Beijing, 3-9 November, 2007), particular attention was given to the recently published results of two randomised clinical trials, comparing cytology with HPV-based cervical cancer screening (1, 2). The baseline relative sensitivity for detection of high-grade cervical intraepithelial neoplasia (CIN2+) of viral compared to cytological screening was 1.69 (95% CI: 0.83-3.45), in the Canadian study where the Hybrid Capture-2 assay was used, and 1.50 (95% CI: 1.13-2.01) in the Swedish trial, where HPV positivity was defined as type-specific persistence over 1 year, assessed by general primer PCR followed with genotyping. These findings are in line with results from previous meta-analyses including essentially non-randomized studies (3, 4), but which are equally valid for cross-sectional comparisons (5).

The Swedish trial also evaluated the relative risk of developing CIN3+ 3–5 years subsequent to the baseline negative test result in the control arm. HPV-negative women had a relative risk of 0.53 (95% CI: 0.29-0.92) compared to those who were cytology-negative. A recent randomized trial, conducted in the Netherlands, also found relative risks of 0.45 (95% CI: 0.28–0.67) and 0.33 (95% CI: 0.20–0.53) at the second screening round 5 to 6 years later for women who were HPV-negative or HPV and cytologically negative, respectively, compared to women with a negative Pap smear in the control arm (6).

At the workshop, it was noted that the longitudinal results of non-randomized studies could be considered as well. Indeed, the Portland cohort study, for instance, generated data allowing the computation of the 45-month cumulative risk in women with a normal Pap smear, which was 0.5% (7). The relative risks, associated with a negative HPV (Hybrid Capture-2) test and a combined negative HPV and cytology result, were respectively 0.55 (95% CI: 0.35–0.85) and 0.28 (95% CI: 0.18–0.53). Similar results have been found in the Hammersmith study in the United Kingdom (8).

These findings provide a strong case for introducing HPV testing into primary cervical screening, but more complete and detailed (age stratified and uniformly formatted) data from all relevant studies are needed in order to formulate evidence-based recommendations on target age-group, screening intervals and triage options (9).

At the Workshop, it was unanimously agreed to set up an international team of experts in systematic reviews involving the principal investigators of the main trials to meta-analyze data from all randomized and major non-randomized studies.

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