

Data from a hospital-based case-control study collected in 11 participating centers in 9 countries were analyzed to determine whether use of combined oral contraceptives alters risk of invasive squamous-cell cervical cancer. Information on prior use of oral contraceptives, screening for cervical cancer, and suspected risk factors for this disease were ascertained from interviews of 2361 cases and 13,644 controls. A history of smoking and anal and genital warts was obtained, and blood specimens were collected for measurement of antibodies against herpes simplex and cytomegalo viruses, from selected sub-sets of these women, as was a sexual history from interviews of husbands. The relative risk of invasive squamous-cell cervical carcinoma was estimated to be 1.31, with a 95% confidence interval that excluded one, in women who ever used combined oral contraceptives. Risk of this disease increased significantly with duration of use after 4 to 5 years from first exposure, and declined with the passage of time after cessation of use to that of non-users in about 8 years. No sources of bias *or* confounding were identified that offered plausible explanations for these findings. The strength of these results, and their consistency with those from other studies, suggest that a causal relationship may exist between use of combined oral contraceptives and squamous-cell cervical carcinoma. Women who have used these products for 4 or more years, and who most recently used them within the past 8 years, should receive high priority for cervical cytologic screening.