The primary goal of our report was to assess the modification of the associations between aetiologic exposures and breast cancer risk by tumour subtypes, using a novel statistical approach to account for correlated tumour characteristics, including hormone receptor status. Our results were generally consistent with previous studies, thus providing support for both the validity and generalisability of our conclusions. Although our estimates of overall relative risk for exposures that are modified by ER status are valid, we recognise that they may differ from those found in populations with a lower percentage of ER-negative tumours. It was notable that the direction and magnitude of overall associations of most aetiologic exposures and breast cancer risk in Poland were similar to previously published reports, with the exception of obesity among postmenopausal women, which has been linked to greater risk for ER-positive as compared to ER-negative tumours in many studies (Althuis et al, 2004).

Our analyses also utilised standard statistical approaches to adjust for correlated risk factors. Although residual confounding is always possible, the contention that associations may have been biased by a failure to account for factors correlated with mammographic screening (e.g., education, HRT use) would not apply. As shown in Table 1 of our report, there were some differences in prior screening proportions between the cases and controls (62% vs 54%), which are likely to reflect increased reporting by cases of recent mammograms performed for breast cancer symptoms.

Finally, concerns were also expressed regarding potential error with histologic classifications in our study. The levels of agreement between Polish and US pathology results for the classification of ductal (80%) and lobular (68%) tumours were similar to what would be expected in comparable reviews in other settings, and the main disagreements were for the classification of mixed tumours (18%), largely attributable to differences in terminology. The US review was performed to afford maximal opportunities for exploring aetiologic relationships, whereas the Polish review was performed for clinical management. Accordingly, the US review applied stringent criteria for classifying tumours as pure ductal or lobular carcinomas, placing more tumours in the mixed category. Inclusion of cases without the US review could have diluted differences between ductal and lobular tumours, but should not have created differences had they not been present.
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