

the prognostic favorable outcome, but not statistically significantly different from the non-favorable outcome. The risk of dying from breast cancer was based on 51 deaths among the 10,874 women. The risk of dying for current users of HRT was RR 1.06 (0.44-2.51) compared to never users.

Conclusions: For current users of HRT, the risk of developing breast cancer with various favorable prognostic characteristics was increased 2-3-fold compared to never users, but estimates for non-favorable prognostic characteristics were significantly increased as well. The difference between the more favorable and the non-favorable outcome was not statistically significant. Although the risk of breast cancer was increased for current users of HRT, mortality from breast cancer was not increased.

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ORAL

Breast cancer incidence among mothers of a population-based series of 2604 children with cancer: evidence of mother-fetal interaction

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Background: To determine breast cancer incidence among mothers of children with solid tumours and to formulate hypotheses about hormonal risk factors associated with both breast cancer in mothers and cancers in children.

Materials and methods: Mothers of 2604 children aged < 15 years with solid tumours included in the Manchester Children's Tumour Registry, 1954-1996 were traced and followed up to 31st December 2000 through the UK National Health Service Central Register. Data on breast cancer diagnosis were obtained through the UK National Cancer Registration System. Standardised Incidence Ratio (SIR), P-values and 95% confidence intervals were calculated from serial age and sex-specific breast cancer incidence for England and Wales.

Results: There was a significant excess of breast cancers in mothers (Observed number, O = 95, Expected number, E=73.5, SIR 1.3, $p < 0.05$). Significant excesses were found among mothers of children below the median age for diagnosis of their tumours (SIR 1.5, $p < 0.01$), mothers of case boys (SIR 1.6, $p < 0.001$), with a borderline significance in mothers with age at breast cancer diagnosis < 50 years (SIR 1.4, $p = 0.06$). There is a marginally significant trend of breast cancer risk decreasing with increasing time from date of birth of the index child to the date of diagnosis in mothers (trend $p = 0.09$).

Conclusions: These results indicate that there is an excess of breast cancer among mothers of children with solid tumours which may be due to mother-fetal interaction, possibly hormonally mediated during the index pregnancy. The cancer predisposition may be due, in part, to certain high and low penetrance genes, such as TP53 and hCHK2. But other low-penetrance inherited genes, for example, estrogen metabolizing genes and estrogen-regulated genes, may also be involved in those genetically susceptible individuals.

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ORAL

Self reported stress levels predict subsequent breast cancer in a cohort of Swedish women.

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Background: The association between stress and breast cancer has been studied, mostly using case-control designs, but rarely examined prospectively. The purpose of this paper is to describe the role of stress as a predictor of subsequent breast cancer.

Methods: A representative cohort of 1462 Swedish women aged 38-60 years were followed for 24 years. Stress experience at a baseline examination in 1968/69 was analyzed in relation to incidence of breast cancer with proportional hazards regression.

Results: Women reporting experience of stress during the five years preceding the first examination displayed a two-fold rate of breast cancer compared to women reporting no stress (age-adjusted relative risk 2.1; 95% CI (1.2-3.7)). This association was independent of potential confounders including reproductive and lifestyle factors.

Conclusions: The significant, positive relationship between stress and breast cancer in this prospective study is based on information that is unbiased with respect to knowledge of disease, and can be regarded as more valid than results drawn from case-control studies.