Epidemiology of breast cancer. Findings from the nurses' health study.

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BACKGROUND. The epidemiology of breast cancer was reviewed in the context of hormonal, hereditary, histologic, and dietary risk factors. METHODS. Literature review. RESULTS. Late age at menarche and early age at first birth decrease the risk of breast cancer as does an early age at menopause. These risk factors relate to the lifetime exposure of the breast tissue to ovarian hormones. Although an early first birth is associated with a transient increase in the risk of breast cancer, perhaps as a result of the breast's exposure to high levels of hormones before terminal differentiation, in older women, parity is associated with a decreased risk of breast cancer. Among postmenopausal women, obesity is associated with higher levels of estrogens and an increased risk of breast cancer. Within the strata of breast cancer stages at diagnosis, obesity is associated with increased mortality, again supporting the influence of endogenous estrogens on this disease's incidence, recurrence, and survival rates. Consistent with these relationships, current use of estrogen therapy among postmenopausal women is associated with an increased risk of breast cancer. A family history of breast cancer is associated with approximately a two-fold increase in the risk of breast cancer, and this risk is greater if the diagnosis was made when the woman's mother was young, although even a diagnosis in an older mother is associated with an increased risk in her daughters. The follow-up of women with a history of benign breast biopsy results shows that atypical hyperplasia is associated with a fourfold increase in risk compared with a biopsy specimen without proliferative changes. Atypia doubles the risk. These data support the concept of atypia as a precursor lesion for breast cancer and may warrant its use as a marker in further studies. Consistent data from retrospective and prospective studies show a positive association between moderate alcohol intake and the risk of breast cancer. This may reflect the increase in estrogen levels observed among women who consume alcohol. Data from prospective studies do not support a relationship between dietary fat intake and the risk of breast cancer either in premenopausal or postmenopausal women. CONCLUSIONS. Few of these associations...
offer the potential for intervention to reduce the breast cancer risk.

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