Menopausal Estrogen and Estrogen-Progestin Replacement Therapy and Breast Cancer Risk

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Source: JAMA, volume 283, No. 4: 485-491, (January) 2000

Introduction
Postmenopausal estrogen therapy has been used widely to reduce menopausal symptoms, risk of osteoporotic fractures, and probably coronary heart disease. Side effects include venous thrombosis and cancers of breast and uterus. Combination therapy of estrogen and progestin has become the standard hormonal regimen for women with a uterus to prevent an increased risk of endometrial hyperplasia and carcinoma. This study addressed the risk of breast cancer associated with the use of estrogen-progestin hormone replacement therapy (HRT).

Methods
Follow-up data on 46,355 postmenopausal women in the Breast Cancer Detection Demonstration Project from 1980 to 1995 was collected.

Results
After adjusting for age, education, body mass index, history of mammography and age at menopause, compared with women who had not taken HRT:
- the relative risk of breast cancer was 1.4 in women who took combination HRT either currently or within the previous 4 years.
- the relative risk was 1.2 for women who had recently used estrogen-only therapy.
- the relative risk of breast cancer increased by 1% for each year of estrogen-only use and by 8% for each year of estrogen-progestin-only use.

Discussion
This study suggested that current or recent use of HRT is associated with a greater increased risk of breast cancer than estrogen-only therapy. The investigators indicated that the study is not the final word on the topic of HRT and breast cancer risk. More studies evaluating longer-term use of estrogen in combination with progestin and different combination regimens of hormones are needed in the future. Decisions for women and their physicians should be made based on the individual considerations.