

## Hormone therapy and breast cancer

The drop in the incidence of breast cancer in the US since 2002 is likely to be related to the decreased use of postmenopausal estrogen plus progestin therapy in this population.

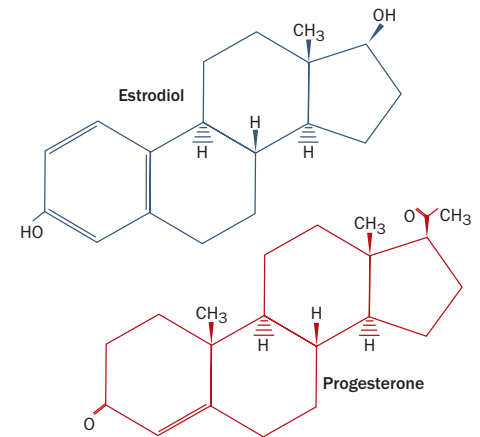
In 2002, the investigators of the Women's Health Initiative (WHI) trial reported that health risks related to postmenopausal therapy with estrogen plus progestin are more substantial than are the benefits. As a result, the number of patients who receive such therapy rapidly decreased in the US; within a year, a decrease was also observed in the incidence of breast cancer. Nevertheless, some studies performed in other countries reported different trends and the cause of the declining breast cancer incidence remained controversial. Therefore, Chlebowski and coworkers assessed whether the observed temporal changes were indeed causally related.

The investigators analyzed two sets of data released by the WHI: results of a randomized, controlled trial that compared the effects of 0.625 mg conjugated equine estrogen plus

2.5 mg medroxyprogesterone acetate daily ( $n = 8,506$ ) with those of placebo ( $n = 8,102$ ) and data from an observational study that included 16,121 women who were using estrogen plus progestin therapy and 25,328 women who were not.

In the first 2 years of the clinical trial, the incidence of breast cancer was slightly lower in the treatment group than in the placebo group, but it continuously increased during the following years of the trial. After the end of the 5.6-year intervention, the number of new breast-cancer diagnoses rapidly decreased. In the observational study, the frequency of breast-cancer diagnoses between 2000 and 2002 was relatively stable, and about twice as high in the group who received hormone therapy than in the control group. However, when the use of combined hormone therapy started to decrease, a parallel decrease was observed in the incidence of breast cancer. These changes were not attributable to changes in the frequency of mammography in any of the groups.

The researchers conclude that discontinuation of postmenopausal



estrogen plus progestin therapy results in a decreased risk of breast cancer, which is partly attributable to the regression of preclinical cancers.

*Julianna Vig*

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