Estrogen alone is effective for reducing breast cancer risk

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While endogenous estrogen (i.e., estrogen produced by ovaries and by other tissues) does have a well-known carcinogenic impact, hormone replacement therapy (HRT) utilizing estrogen alone (the exogenous estrogen) provides a protective effect in reducing breast cancer risk, according to study results presented at the 33rd Annual CTRC-AACR San Antonio Breast Cancer Symposium, held Dec. 8-12.

"Our analysis suggests that, contrary to previous thinking, there is substantial value in bringing HRT with estrogen alone to the guidelines. The data show that for selected women it is not only safe, but potentially beneficial for breast cancer, as well as for many other aspects of women's health," said lead researcher Joseph Ragaz, M.D., medical oncologist and clinical professor in the faculty of medicine, School of Population and Public Health at The University of British Columbia, Vancouver, BC, Canada.

"These findings should intensify new research into its role as a protective agent against breast cancer," he added.

Ragaz and colleagues reviewed and reanalyzed data from the Women's Health Initiative (WHI) hormone replacement therapy trials. WHI is a national health study that focuses on strategies for preventing heart disease, breast and colorectal cancer, and fracture in postmenopausal women. The WHI was launched in 1991 and includes more than 161,000 U.S. women aged 50 to 79 years.
"Over the last 30 years HRT has been used almost indiscriminately by women expecting the benefit of reducing cardiac risks, while providing a protective effect against bone fracture, and improving overall quality of life," said Ragaz. "The WHI results as originally interpreted led to a major pendulum swing against HRT."

The WHI HRT trial consisted of two cohorts of women; the estrogen-alone group of women without a uterus and the estrogen-plus-progestin group of women with a uterus.

Ragaz and colleagues reanalyzed the WHI studies in more detail and found that subsets of women with no strong family history of breast cancer who received estrogen alone had a significantly reduced breast cancer incidence. In addition, the 75 percent of women without benign disease prior to the trial enrollment also had a reduced breast cancer risk.

"Reduction of rates of breast cancer in the majority of women who are candidates for estrogen-based HRT is a new finding because estrogen was always linked with a higher incidence of breast cancer," Ragaz said, "yet estrogen administered exogenously is actually protective for most women."

Based on the results of this current analysis, Ragaz suggested that "while the use of HRT with estrogen alone may reduce the risk of breast cancer and may also be appropriate to manage menopausal symptoms, further research is warranted to elaborate on the optimum treatment regimen, to refine the selection of ideal candidates for estrogen therapy, and to understand the estrogen mechanisms that support the prevention of human breast cancer."

"The recommendations based on prior analyses of the results of the WHI HRT studies was not to use HRT, but we are optimistic this will change,"
he said. "Our conclusion, based on the data presented, should enhance considerations for an early approval of HRT based on estrogen-alone for the majority of selected women suffering with menopausal symptoms and galvanize new research on HRT to define the optimum regimens for individual women."

Provided by American Association for Cancer Research

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