

Scientists uncover new key to the puzzle of hormone therapy and breast cancer

November 9 2009



Karla Kerlikowske, M.D., is a professor of medicine and epidemiology and biostatistics at the University of California, San Francisco. Credit: Karla Kerlikowske, M.D.

The use of postmenopausal hormone therapy has decreased over time in the United States, which researchers suggest may play a key role in the declining rate of atypical ductal hyperplasia, a known risk factor for breast cancer.

"Postmenopausal [hormone treatment](#) is associated with increased rates of benign breast biopsies, and early and late stages of cancer. Atypical ductal hyperplasia is associated with the use of postmenopausal hormone treatment and its rates have decreased with the decline in use of this treatment," said researcher Tehillah Menes, M.D., who was the chief of

breast service in the Department of Surgery at Elmhurst Hospital Center, New York, when this study was conducted.

Details of these findings are published in *Cancer Epidemiology, Biomarkers & Prevention*, which is a journal of the American Association for Cancer Research.

Atypical ductal hyperplasia is abnormal cells that grow in the milk ducts of the breast. Previous research has shown that women who are diagnosed with atypical ductal hyperplasia are at a three- to five-fold increased risk of developing breast cancer.

Using data from the Breast Cancer Surveillance Consortium, Menes and colleagues examined the rates of atypical ductal hyperplasia to determine risk factors and rates for more than 2.4 million mammography studies with and without breast cancer.

Between 1996 and 2005, the researchers found that postmenopausal [hormone therapy](#) use decreased from 35 percent to 11 percent; atypical ductal hyperplasia decreased from 5.5 per 10,000 mammograms in 1999 to 2.4 in 2005. Cases of atypical ductal hyperplasia associated with cancer reached a peak of 4.3 per 10,000 mammograms in 2003, but decreased to 3.3 in 2005.

"The rate of atypical hyperplasia declined, which we didn't expect to see with the increased use of mammography to identify abnormal lesions," said researcher Karla Kerlikowske, M.D., professor of medicine and epidemiology and biostatistics, University of California, San Francisco. "We did not expect to find a decline in rate of atypical ductal hyperplasia with a decline in postmenopausal hormone treatment use."

Findings also showed that when atypical ductal hyperplasia is diagnosed with an associated breast cancer, it is usually not an aggressive type of

cancer. It is usually associated with low-grade cancers or those at an early stage, providing evidence to support the theory of a separate pathway for development of low-grade and high-grade breast cancers, according to Menes.

"These findings help clarify the different pathways to the development of breast cancer and the role of postmenopausal hormone treatment in increasing the rates of [breast cancer](#)," Menes concluded.

Kerlikowske suggested that future research should focus on the influence of exogeneous hormone therapy on benign proliferative lesions of the breast.

Source: American Association for Cancer Research ([news](#) : [web](#))

Citation: Scientists uncover new key to the puzzle of hormone therapy and breast cancer (2009, November 9) retrieved 18 April 2024 from <https://medicalxpress.com/news/2009-11-scientists-uncover-key-puzzle-hormone.html>

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