Tamoxifen, AI therapies linked to reduced risk for contralateral breast cancer in community health

October 6 2016

In patients with invasive breast cancer treated in a general community health care setting, tamoxifen therapy was associated with reduced risTamoxifen, AI therapies linked to reduced risk for contralateral breast cancer in community health k for contralateral breast cancer in the opposite breast and that risk progressively decreased as the duration of tamoxifen therapy increased, according to a new study published online by *JAMA Oncology*.

About 5 percent of patients develop contralateral breast cancer (CBC) within 10 years after their breast cancer diagnosis. Previous clinical trials have shown tamoxifen citrate therapy can reduce primary cancer recurrence risk, improve survival and lower CBC risk. Trials also suggest there is a lower CBC risk with the use of aromatase inhibitors (AIs).

But what are the magnitude and duration of these protective associations in real-world treatment scenarios?

Gretchen L. Gierach, Ph.D., M.P.H., of the National Institutes of Health, Bethesda, Md., and coauthors looked at the association between tamoxifen and AI therapy and CBC risk in a general community setting.

The authors studied CBC risk among 7,451 patients diagnosed with a first primary unilateral invasive breast cancer at the Kaiser Permanente Institute for Health Research in Colorado or the Kaiser Permanente

Northwest Center for Health Research in Oregon between 1990 and 2008.

Among the 7,451 women, the median age at initial breast cancer diagnosis was 60.6 years and most of the women were white. During 6.3 years of follow-up, 248 women developed CBC (45 in situ and 203 invasive).

Tamoxifen was used by 52 percent (3,900 of 7,451) of patients with a median use duration of 3.3 years. During the course of the study, 1,929 patients (25.6 percent) used AIs, with 963 patients taking them with tamoxifen and 966 taking them without tamoxifen for median durations of 2.2 years and 2.9 years, respectively.

The risk of CBC decreased the longer tamoxifen was used. In current users, there was an estimated 66 percent reduction in relative risk for four years of tamoxifen use compared with nonusers of tamoxifen. Reductions in risk were smaller but still significant at least five years after stopping tamoxifen therapy.

AI use without [tamoxifen therapy](link) also was associated with reduced risk of CBC, according to the results.

Study limitations include its observational nature.

"This retrospective analysis of more than 7,500 U.S. patients with invasive breast carcinoma treated in a general community health care plan suggests that adjuvant tamoxifen and AI therapies significantly reduce CBC risk. ... Among those surviving at least five years, tamoxifen use for at least four years was estimated to prevent three CBCs per 100 women by 10 years after an estrogen receptor-positive first breast cancer, an absolute risk reduction that is consistent with findings from clinical trials. If adjuvant endocrine therapy is indicated for [breast](link)

cancer treatment, these findings in concert with trial data suggest that
women should be encouraged to complete the full course," the study
concludes.

  More information: *JAMA Oncol.* Published online October 6, 2016.
DOI: 10.1001/jamaoncol.2016.3340

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