Nature Reviews Clinical Oncology **12**, 66 (2015); published online 13 January 2015; doi:10.1038/nrclinonc.2014.236

BREAST CANCER

Tamoxifen—offering a long-term prevention option

Tamoxifen is a well-established and effective treatment for oestrogen receptor (ER)-positive breast cancer—the most-common type of cancer in women, with an estimated annual incidence of 1.6 million cases worldwide. Five years of tamoxifen reduce the risk of breast cancer in healthy women at increased risk of this disease in the first 10 years after treatment cessation; the report by Cuzick and coauthors of the long term follow up of the IBIS-I trial indicates that a continued additional benefit is seen over the entire 20 years follow up period.

In the IBIS-I trial, the investigators randomly assigned 7,154 women with an increased risk of developing breast cancer to receive oral tamoxifen or placebo for 5 years. The primary end point of the study was disease occurrence. After a median follow up of 16 years, a significant reduction in the occurrence of all breast cancers was observed in the tamoxifen group compared with the placebo group. The risk of developing breast cancer was similar between years 0–10 (6.3% in the placebo group versus 4.6% in the tamoxifen group) and after 10 years (6.3% versus 3.3%, respectively). The greatest risk reduction was reported for invasive ER-positive breast cancer and ductal carcinoma *in situ*; however, no risk-reducing effect was noted for patients with invasive ER-negative breast cancer.

These results improve the benefit-to-harm ratio of tamoxifen for breast cancer prevention, documenting a long period of protection after treatment cessation.

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Original article Cuzick, J. *et al.* Tamoxifen for prevention of breast cancer: extended long-term follow-up of the IBIS-I breast cancer prevention trial. *Lancet Oncol.* doi:10.1016/S1470-2045(14)71171-4