



Cancer Epidemiol Biomarkers Prev. 2013 Sep;22(9):1529-37. doi: 10.1158/1055-9965.EPI-13-0414. Epub 2013 Jul 5.

Long-term statin use and risk of ductal and lobular breast cancer among women 55 to 74 years of age.

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Abstract

BACKGROUND:

Mechanistic studies largely support the chemopreventive potential of statins. However, results of epidemiologic studies investigating statin use and breast cancer risk have been inconsistent and lacked the ability to evaluate long-term statin use.

METHODS:

We used data from a population-based case-control study of breast cancer conducted in the Seattle-Puget Sound region to investigate the relationship between long-term statin use and breast cancer risk. Nine hundred sixteen invasive ductal carcinoma (IDC) and 1,068 invasive lobular carcinoma (ILC) cases in patients 55 to 74 years of age diagnosed between 2000 and 2008 were compared with 902 control women. All participants were interviewed in-person and data on hypercholesterolemia and all episodes of lipid-lowering medication use were collected through a structured questionnaire. We assessed the relationship between statin use and IDC and ILC risk using polytomous logistic regression.

RESULTS:

Current users of statins for 10 years or longer had a 1.83-fold increased risk of IDC [95% confidence interval (CI): 1.14-2.93] and a 1.97-fold increased risk of ILC (95% CI: 1.25-3.12) compared with never users of statins. Among women diagnosed with hypercholesterolemia, current users of statins for 10 years or longer had more than double the risk of both IDC (OR: 2.04, 95% CI: 1.17-3.57) and ILC (OR: 2.43, 95% CI: 1.40-4.21) compared with never users.

CONCLUSION:

In this contemporary population-based case-control study, long-term use of statins was associated with increased risks of both IDC and ILC.