

Abstract

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Aspirin Intake and Survival After Breast Cancer.

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PURPOSE: Animal and in vitro studies suggest that aspirin may inhibit breast cancer metastasis. We studied whether aspirin use among women with breast cancer decreased their risk of death from breast cancer.

METHODS: This was a prospective observational study based on responses from 4,164 female registered nurses in the Nurses' Health Study who were diagnosed with stages I, II, or III breast cancer between 1976 and 2002 and were observed until death or June 2006, whichever came first. The main outcome was breast cancer mortality risk according to number of days per week of aspirin use (0, 1, 2 to 5, or 6 to 7 days) first assessed at least 12 months after diagnosis and updated.

RESULTS: There were 341 breast cancer deaths. Aspirin use was associated with a decreased risk of breast cancer death. The adjusted relative risks (RRs) for 1, 2 to 5, and 6 to 7 days of aspirin use per week compared with no use were 1.07 (95% CI, 0.70 to 1.63), 0.29 (95% CI, 0.16 to 0.52), and 0.36 (95% CI, 0.24 to 0.54), respectively (test for linear trend, $P < .001$). This association did not differ appreciably by stage, menopausal status, body mass index, or estrogen receptor status. Results were similar for distant recurrence. The adjusted RRs were 0.91 (95% CI, 0.62 to 1.33), 0.40 (95% CI, 0.24 to 0.65), and 0.57 (95% CI, 0.39 to 0.82; test for trend, $P = .03$) for 1, 2 to 5, and 6 to 7 days of aspirin use, respectively.

CONCLUSION: Among women living at least 1 year after a breast cancer diagnosis, aspirin use was associated with a decreased risk of distant recurrence and breast cancer death.

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