Tamoxifen Therapy for Breast Cancer and Endometrial Cancer Risk

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Background
Tamoxifen is now widely used among women of all ages for the treatment of all stages of breast cancer. Tamoxifen reduces the risk of breast cancer recurrences and mortality as well as subsequent contralateral breast cancer. However, it is also known that tamoxifen used for adjuvant therapy is associated with increasing risk of developing endometrial cancer. Other known risk factors associated with endometrial cancer include reproductive characteristics, obesity, hypertension, diabetes, use of steroid hormone preparations, and smoking. Whether these risk factors modify the tamoxifen-endometrial cancer relationship is unknown.

Methods
Dr. Bernstein and associates examined factors associated with the development of endometrial cancer in 324 patients with endometrial cancer and 671 matched controls. All patients were identified from within a population-based cohort of women diagnosed with breast cancer between 1978 and 1992.

Results
- Tamoxifen use significantly increased the risk of endometrial cancer in these women, with an odds ratio of 1.52.
- This risk increased with the duration of tamoxifen use, to an odds ratio of 4.06 in women treated for 5 years or more compared with nonusers.
- A history of estrogen replacement therapy significantly increased the risk of endometrial cancer associated with tamoxifen use.
- Higher body mass index also enhanced the risk, but this association was not statistically significant.

Discussion
This study confirmed the link between tamoxifen use and endometrial cancer, and added new knowledge of the risk-enhancing effects of treatment duration, body mass index, and estrogen replacement therapy. Closer monitoring of breast cancer patients with these risk factors may be indicated during tamoxifen therapy.