Antipsychotics and Breast Cancer Risk

By Brian Miller, MD, PhD, MPH
Hyperprolactinemia is a potential adverse effect of the anti-dopaminergic action of antipsychotic medications. There is evidence that rodents exposed to the antipsychotic risperidone have an increased risk of mammary gland tumors. ¹
In humans, there are both positive and negative studies regarding the association between hyperprolactinemia and breast cancer risk. A retrospective study of more than 100,000 US women found that previous use of antipsychotics was associated with a 16% increased risk of breast cancer.²
Reutfors and colleagues\(^3\) performed a nationwide cohort study using population-based registers in Sweden to investigate the association between risperidone use and breast cancer risk in women.
METHODS

The authors identified all women age 18 and older who filled a first prescription for risperidone or any other antipsychotic between 2006 and 2012.

All women with 2 consecutive prescriptions for the same antipsychotic within 3 months, no previous cancer diagnosis (other than non-melanoma skin cancer), and no previous prescriptions of paliperidone were included.
Patients were trichotomized into groups exposed to

- Risperidone
- Any other atypical antipsychotic, or
- A typical antipsychotic

Cox regression models were used to estimate the hazard ratio (HR) and 95% confidence interval (CI) for the association between antipsychotics and breast cancer.
The final cohort consisted of 55,976 women, of whom 22,908, 24,524, and 8544 were exposed to risperidone, other atypical antipsychotics, and typical antipsychotics, respectively.
Patients were followed for up to 6 years, with a mean follow-up time ranging from 2.4 years in the risperidone group to 2.8 years in the typical antipsychotics group.

Mean age at treatment initiation was significantly different between the groups, ranging from 71.3 years for new users of risperidone to 46.2 years for new users of other atypical antipsychotics.

There was also a higher prevalence of a diagnosis of dementia in the risperidone group (22.5%) than in the other groups.
RESULTS (2)

The number of incident breast cancer cases during follow-up was 130 in the risperidone group, 134 in the other atypical antipsychotics group, and 84 in the typical antipsychotics group.

After adjusting for age, there was no increased risk of breast cancer among risperidone users compared with patients exposed to other atypical antipsychotics (HR, 0.94; 95% CI, 0.72–1.22) or typical antipsychotics (HR, 1.25; 95% CI, 0.94–1.66).
RESULTS (3)

Analyses stratified by tumor stage and patients with active antipsychotic treatment did not change the pattern of these results.

Strengths of the study included the population-based cohort design, use of national registries, and large sample size. Limitations include the relatively short duration of follow-up, difference in age structure across the 3 groups, and the higher proportion of patients with dementia in the risperidone group.
The authors concluded that exposure to risperidone was not associated with increased short-term risk of breast cancer in women, compared with exposure to other antipsychotic agents. Studies with a longer follow-up period, and studies restricted to patients with psychotic disorders would provide additional, valuable insights regarding this association.
REFERENCES


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