## Breast Ca Risk Likely Higher in Prediabetes Phase

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SAN DIEGO — Postmenopausal women with newly diagnosed diabetes were more likely to have had a history of breast cancer before their diagnosis than were women without diabetes, results from a large cross-sectional Canadian study showed.

Although the finding supports the hypothesis that breast cancer risk is increased in the prediabetes phase, "there are limitations to our study," Lorraine Lipscombe, M.D., said at the annual scientific sessions of the American Diabetes Association.

"Given the cross-sectional design, we cannot exclude the possibility of reverse causality in that breast cancer or its treatment actually increased the risk of dia-

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betes," said Dr. Lipscombe of the division of endocrinology at the University of Toronto. "However, there have been no studies in the literature to support this possibility, and there's no known rationale whereby this association

might occur."

A more realistic possibility, she offered, "is that breast cancer increases the opportunity for diabetes diagnosis, representing a detection bias. We also couldn't exclude confounding variables as a possible explanation. We were not able to adjust for other breast cancer risk factors such as family history, reproductive factors, and obesity."

For the study, which she said is the first of its kind, Dr. Lipscombe and her associates used government health care databases from the province of Ontario to identify women aged 55-79 years who were diagnosed with diabetes from 1994 to 2002 and compare them with their peers without diabetes. They used a breast cancer registry to identify breast cancer cases in Ontario women from 1964 to the present.



From 1994 to 2002, there were 82,390 women in Ontario with newly diagnosed diabetes and 411,950 women without diabetes. "The average age was about 65, but the women with diabetes were a little bit older and were more likely to reside in a lower-income neighborhood," she said.

The investigators identified prior breast cancers in 3,071 women with newly diagnosed diabetes (3.7%) and in 12,709 women without diabetes (3.1%). The mean time from breast cancer diagnosis to

index date was about 8 years.

The unadjusted rates of prior breast cancer were 22% higher among women with newly diagnosed diabetes than among women without diabetes, for an odds ratio of 1.22.

When the investigators adjusted for age, income, and number of primary care visits, the association remained significant. The adjusted rates of prior breast cancer were 13% higher among women with newly diagnosed diabetes than among

others, for an odds ratio of 1.13.

"Our results support other studies that have shown a small increase in breast cancer incidence after a diagnosis of diabetes," Dr. Lipscombe said. "It also lends support to the temporal relationship between insulin resistance and breast cancer. Our results also suggest this risk may be greater in the prediabetes phase. However, further prospective studies will be required."

The Canadian Diabetes Association funded the study.

