Breast cancer linked to environmental smoke exposure among Mexican women

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Mexican women who do not smoke but are exposed to smoking, known as environmental smoke exposure, are at three times higher risk for breast cancer than non-smoking women not exposed to passive smoking, according to findings presented at the Third AACR Conference on The Science of Cancer Health Disparities, being held Sept. 30-Oct.3, 2010.

"Everyone should avoid secondhand smoke," said Lizbeth López-Carrillo, Ph.D., professor of epidemiology, at the National Institute for Public Health, Mexico City, Mexico.

"Tobacco smoking produces both mainstream smoke, which is drawn through the tobacco column and exits through the mouthpiece during puffing, and environmental, side-stream smoke, which is emitted from the smoldering tobacco between puffs," she said. "We have found that environmental exposure to tobacco increases a woman's risk for breast cancer in the same way that active smoking does."

More than 6 million Mexican women between the ages of 12 and 65, who have never-smoked, are being exposed to environmental tobacco smoke, according to background information from the National Surveys of Addictions. Previous research has shown that active smoking is linked to a 20 percent increase in the risk for breast cancer — the leading cause of cancer in women in Mexico — with the highest incidence among those women in the Mexican states bordering the United States. However, the association between environmental tobacco smoke and breast cancer risk, particularly among postmenopausal women, is less

established.

Therefore, López-Carrillo, and colleagues conducted a study to estimate the risk for breast cancer due to lifetime exposure to passive smoking among pre- and postmenopausal women residing in Mexican states bordering the United States.

They examined 504 women with confirmed breast cancer and compared them with 504 healthy women of similar age. During direct interviews, the women were asked about their active and passive lifetime smoking exposure at the home and the workplace. Women with either active or passive tobacco exposure were compared to those women who had never smoked and had no passive smoking exposure.

Compared with women who had never smoked and had no passive smoking exposure, women with passive smoking exposure had a threefold higher risk for breast cancer. The link between passive smoking and breast cancer remained regardless of menopausal status.

Among women who actively smoked, the researchers found an increased breast cancer risk; however, this association was only significant if women began smoking between puberty and the birth of their first child.

"Active and passive smoke exposure is a modifiable risk factor for breast cancer," López-Carrillo said. "Reducing not only active smoking, but also passive smoking, will prevent new breast cancer cases in this population."

Provided by American Association for Cancer Research

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