

Breast Cancer Linked To Pesticide DDT, Study Suggests

ScienceDaily (Oct. 9, 2007) — At a time when the pesticide DDT is once again being promoted to consumers, researchers have found new evidence linking DDT to breast cancer, according to a study to be published in the scientific journal "Environmental Health Perspectives."

High levels of p,p'- DDT, the primary component of DDT, in women exposed before mid-adolescence may predict a five-fold increase in breast cancer risk. Many American women heavily exposed to DDT in childhood have not yet reached 50 years of age, therefore the public health significance of DDT exposure in early life may be large. This is the first study to examine how exposure in early life affects later life risk for breast cancer.

Based on these findings, researchers from the California-based Public Health Institute and Mount Sinai Medical Center in New York conclude that it is too soon to decide that DDT exposure is unrelated to breast cancer.

Previous studies of DDT and breast cancer assessed exposure later in life, after the time that animals are in the window of maximum vulnerability may have passed.

The study, led by Barbara Cohn, was the first to obtain blood samples from young women. It included 133 women who developed breast cancer before age 50 and 133 women who did not. These women had donated blood between 1959 and 1967, at an average age of 26 years as part of a child health and development study.

Although a number of previous studies found no link between breast cancer and DDE, a compound produced by the breakdown of DDT, Cohn's findings do not contradict earlier research, said Marcella Warner, an expert in environmental and reproductive epidemiology at the University of California at Berkeley.

That is because those studies were looking at measured DDE instead of p,p'-DDT. In fact, previous studies may have misclassified exposure, added Warner, who was not affiliated with the study.

"One gets exposure to DDE through foods," Warner said. "A measure of DDE may be an indicator of past exposure to DDT but also a direct measure of DDE intake in foods."

"Many in the scientific and medical communities had concluded that DDT exposure does not cause breast cancer," said Cohn who directs the Center for Research on Women's and Children's Health at the Public Health Institute. "The publication of our study could re-open this debate."

DDT, dichlorodiphenyltrichlorethane, was widely used as a pesticide in the United States and other countries starting in the mid-1940s. The harmful impact of DDT on wildlife was the subject of "Silent Spring" (1962) by Rachel Carson. In 1972, DDT was banned for almost all uses in the United States.

Yet it has been proposed that DDT be reintroduced in the United States to control mosquitoes that carry West Nile Virus and some countries are using DDT to combat malaria.

"DDT has played an important role in malaria control, a pressing public health problem. However, in the case of cancer, the potential harmful effects of DDT that have been reported include reproductive problems such as premature birth and breastfeeding problems. The possible side effects of DDT for wildlife and human health are well recognized and a balanced view should be encouraged, including alternative methods of malaria control," says Dr. Cohn.

The article, entitled "DDT and Breast Cancer in Young Women: New Data on the Significance of Age at Exposure," will be printed in October's edition of "Environmental Health Perspectives." This journal is published by the National Institute of Environmental Health Sciences.

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