

Victims of Seveso disaster face higher risk from some cancers

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People living in the Seveso area of Italy, which was exposed to dioxin after an industrial accident in 1976, have experienced an increased risk of developing cancer. Researchers writing in BioMed Central's open access journal *Environmental Health* found an increased risk of breast cancer in women from the most exposed zone and an excess of lymphatic and hematopoietic tissue neoplasms in all but the least exposed zone.

Angela Pesatori led a team of researchers from the Fondazione IRCCS Ospedale Maggiore Policlinico, a local hospital associated with the University of Milan, who extended a study of cancer incidence in the area, which now covers the period 1977-96. She said, "The industrial accident that occurred in the Seveso area in 1976 exposed a large residential population to substantial amounts of TCDD [2,3,7,8-tetrachlorodibenzo-p-dioxin]. Although the International Agency for Research on Cancer and the US Environmental Protection Agency have both classified TCDD as human carcinogen, scientific debate still persists on the actual cancer risk posed to the general population. We've found that it does pose a carcinogenic hazard, although lower than anticipated from animal studies, at least at the levels experienced by this population after this accident".

The researchers studied the medical records of all subjects living in the area at the date of the accident (July 10, 1976) and those who migrated into, or were born in, the area during the following 10 years. Of these 36,589 files, 99.9% were successfully reviewed. There were 2122 cases

of cancer, 660 of which occurred after 1991. Specific and significant increases in risk, compared to the general population, were discovered for breast cancer and lymphatic and hematopoietic neoplasms, although based on a small number of cases. Speaking about these results, Pesatori said, "These increases were expected based on previous studies. The mortality study, which covered a longer follow-up period, confirmed the excess of lymphatic and hematopoietic risk. We did not identify an all-cancer excess, as seen in occupational cohorts which had similar, sometimes higher, and more complex exposures".

More information: Cancer incidence in the population exposed to dioxin after the "Seveso accident": twenty years of follow-up; Angela Cecilia Pesatori, Dario Consonni, Maurizia Rubagotti, Paolo Grillo and Pier Alberto Bertazzi; *Environmental Health* (in press); www.ehjournal.net/

Source: BioMed Central

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