



Follow-up study of cancer incidence after chlorophenol exposure in a community in southern Finland.

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Author: Pentti Lampi
Jouko Tuomisto
Timo Hakulinen
Eero Pukkala

Author Affiliation: Päijät-Häme Social and Health Group, Keskussairaalankatu 7, FI-15850 Lahti, Finland. pentti.lampi@phsotey.fi

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Abstract: In the 1970s and 1980s, people in a village in southern Finland had been exposed to high concentrations of chlorophenols in the drinking water and in fish from a nearby lake. An ecological analysis and a case-control study conducted around 1990 indicated significant excess in the incidence of non-Hodgkin's lymphoma and soft-tissue cancer in the municipality and a relationship between the chlorophenol exposure and the incidence of these cancers. The present article reports a follow-up of cancer risk in the same study area during a 20-year period after the closing of the old water intake plant, which was contaminated by chlorophenols.

The observed and expected numbers of cancer were obtained for three periods, 1953-1971 (before exposure), 1972-1986 (during exposure) and 1987-2006 (after exposure), for all cancers combined and separately for cancers potentially related to chlorophenols.

The present study demonstrates that all of the cancer risks returned to the average population level during the 20-year period after the old water intake plant was closed and chlorophenol exposure stopped.

The rapid changes in cancer risk after changes in chlorophenol exposure suggest that chlorophenols may have a promotion effect in the carcinogenic process.

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