

0432 Parental exposure to paints and risk of childhood cancer

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Abstract

Objective Even though childhood cancer is a rare disease, it is one of the main causes of death among children in the Western world. Not much is known about the causes of childhood cancers but parental occupational exposures have been suggested by a number of epidemiological studies, including exposure to paints.

Methods and materials All childhood cancer cases (0–15 years) in Denmark from 1968–2012 (n=5,711) were retrieved from the Danish Cancer Registry and population controls (1:100) were randomly selected and matched by age and sex. Maternal and paternal occupational history was retrieved by the Supplementary Pension Fund. Potential confounders were retrieved through the Medical Birth Registry. Register linkages were conducted using the unique identification number assigned to all Danish residents.

Results Preliminary results for cancer of all sites show an OR of 0.89 (95% CI: 0.71–1.01) and 0.86 (95% CI: 0.73–1.01) for maternal and paternal exposure to paint, respectively, after controlling for potential confounders, including SES, maternal smoking, birth order, previous miscarriage, malformation and parental age. Increased but insignificant ORs were found for acute lymphatic leukaemia, non-Hodgkin lymphoma, ependymoma, astrocytoma, Burkitt lymphoma, central nervous system cancers, Ewing sarcoma, melanoma and hepatoblastoma for maternal exposure and acute myeloid leukaemia, glioma, melanoma, neuroblastoma and hepatoblastoma for paternal exposure.

Conclusion Preliminary results have shown little and insignificant effect of parental paint exposure in relation to childhood cancer risk.