

Chapter

1. Asbestos Exposure Assessment, Risk Identification, and Substitutes

Section

C. Epidemiology of ARDs

No./Title

18. Ovarian cancer and occupational exposures in Finland

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Introduction

Asian context

Among the wide range of occupational exposures studied, a high level of asbestos exposure was associated with a non-significant elevated risk for ovarian cancer (1.3; 0.9-1.8) among Finnish women. Because IARC recently acknowledged that asbestos can cause ovarian cancer, asbestos-related ovarian cancer should be monitored in Asian countries, especially among females workers with other types of asbestos-related diseases.

Critical appraisal

The authors admits the various drawbacks in linkage studies and job-exposure matrices, and thus the excesses found in this study need confirmation in individual-level studies.

Unique keywords

Ovarian cancer, women

Abstract

Background: No single occupational or environmental agent has been established as causing ovarian cancer, existing studies often being based on ecologic or proportional mortality data in which potential confounders related to reproductive history have not been taken into account.

Methods: This study linked 324 job titles of occupationally active Finnish women (n = 892,591) at 1970 census with incidence of ovarian cancer (Finnish Cancer Registry, 5,072 cases) during 1971-1995 (over 15 million person-years). The job titles were converted into indicators of exposure to 33 agents, using a national job-exposure matrix based on measurements and surveys (FINJEM). Poisson regression analyses were performed with stratification by birth cohort, follow-up period, and socioeconomic status, and adjusted for mean number of children, mean age at first delivery, and turnover rate for each job title.

Results: We found indications of elevated risks for aromatic hydrocarbon solvents (standardized incidence ratio 1.3 (95% CI 1.0-1.7), leather dust (1.4; 0.7-2.7), man-made vitreous fibers (1.3; 0.9-1.8), and high levels of asbestos (1.3; 0.9-1.8), and diesel (1.7; 0.7-4.1), and gasoline (1.5; 1.0-2.0) engine exhausts). Previously reported findings for hairdressers and women in the printing industry were supported in our data, but not for women in dry cleaning jobs.

Conclusions: Given the various drawbacks in linkage studies and job-exposure matrices, the excesses found in this study need confirmation in individual-level studies.



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Annotation

Fact 1

- Job-specific standardized incidence ratio (SIR) of ovarian cancer in association with high levels of asbestos exposure was 1.3 (95% CI; 0.9-1.8).

Fact 2

- Excess risks for ovarian cancer in relation to asbestos exposure were driven by assisting building workers (SIR 1.2, 95% CI; 0.8-1.7), who perform simple tasks in building houses, but not including other construction work during 1960-1984.

Fact 3

- Talc, which represents the most consistent finding among chemical agents increasing risk of ovarian cancer, may have been contaminated by asbestos.

Fact 4



Fact 5



References