

Chapter

1. Asbestos Exposure Assessment, Risk Identification, and Substitutes

Section

C. Epidemiology of ARDs

No./Title

17. Cohort mortality study of women compensated for asbestosis in Italy

Author/Contributor

Germani D, Belli S, Bruno C

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Introduction

Asian context

Asbestos-related diseases in women have rarely, if ever, been looked into in Asian countries.

Critical appraisal

A rare study which looked into cause-specific mortality of women compensated for asbestosis in Italy.

Unique keywords

Asbestosis, lung cancer, ovarian cancer, women

Abstract



Background: The carcinogenic effect of asbestos is accepted for lung cancer and mesothelioma, while conflicting opinions exist for other cancer sites. The aim of the present investigation is to study cause-specific mortality of women compensated for asbestosis who had certainly been exposed to high levels of asbestos fibers.

Methods: The cause-specific mortality of all Italian women compensated for asbestosis and alive December 31, 1979, was investigated through October 30, 1997. In the total cohort, which included 631 subjects, 277 deaths occurred. Cause-specific SMRs (Standardized Mortality Ratio) were computed using the national rates for comparison.

Results: A significantly increased mortality for all diseases related to asbestos exposure was observed. Mortality for all causes, all neoplasms, lung cancer, uterine cancer, ovarian cancer, and non-neoplastic respiratory diseases was significantly increased. Separate analyses for textile (n=276) and asbestos-cement (n=278) workers were performed. Women employed in the textile industry, mainly exposed to chrysotile, who are compensated at a younger age, showed higher SMRs for lung cancer and asbestosis. Women in the asbestos-cement industry, mainly exposed to crocidolite containing asbestos mixtures, experienced higher mortality for pleural malignancies.

Conclusions: The role of asbestos exposure in the development of gastrointestinal and genital neoplasms is discussed.

Annotation

Fact 1

- The total number of Italian women compensated for asbestosis who were alive December 31, 1979 was 631.

Fact 2

- Mortality for malignancies of the respiratory system was significantly increased such as lung (Standardized Mortality Ratio 483, 95% CI; 276-784) and pleura (SMR 6,404, 95% CI; 3,503-10,749).

Fact 3

- Malignant neoplasms of the genitourinary organs were significantly increased (SMR 274, 95% CI; 163-434), for the ovarian cancer (SMR 477, 95% CI; 218-906) and for uterine cancer (SMR 256, 95% CI; 103-528).

Fact 4

- Women in the textile industry are compensated at a younger age and show relatively higher SMRs for asbestosis and lung cancer (SMR 682, 95% CI; 312-1,295).

Fact 5

- Women in asbestos-cement workers are compensated at an older mean age and show lower SMRs for asbestosis and lung cancer, but mortality from malignant pleural neoplasms is higher.

References