

Chapter

1. Asbestos Exposure Assessment, Risk Identification, and Substitutes

Section

C. Epidemiology of ARDs

No./Title

19. Clinical study on mesothelioma in Japan: relevance to occupational asbestos exposure

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Introduction

Asian context

Comprehensive surveillance programs such as interviewing and recording exposure histories via occupation or environment, in combination with thorough clinical examination including pathology and analysis of lung fiber content, are necessary to monitor asbestos-related diseases in Asian countries.

Critical appraisal

This paper investigated the number of deaths and the number of compensation-authorized cases of malignant mesothelioma in Japan. The authors concluded that of 442 definite cases of malignant mesothelioma diagnosed during 2003-2005 (median age 68 years), 79.2% were caused by asbestos exposure.

Unique keywords

Compensation, mesothelioma, Japan

Abstract

Background: In 2003, the number of deaths due to malignant mesothelioma in Japan was 878; however, only 85 cases of mesothelioma due to asbestos exposure were authorized for compensation. The reasons for this discrepancy require evaluation.

Methods: We examined medical records, X-rays, and pathology results to evaluate mesothelioma cases in Japan between 2003 and 2005; used a questionnaire to identify occupational and environmental histories, and determined the concentration of asbestos fibers in pathology specimens.

Results: We identified 442 definite cases of malignant mesothelioma with a median age of 68 years. There were 316 malignant mesothelioma cases with occupational asbestos exposure, 12 cases with neighborhood exposure and 5 cases with likely domestic exposure. Most (78%) of the 87 cases exceeded 1,000 asbestos particles per gram of dry lung tissue.

Conclusions: We conclude that 79.2% of cases of mesothelioma in Japan in recent years were caused by asbestos exposure.



Annotation

Fact 1

- In Japan, the number of mesothelioma deaths was 500 in 1995, increasing to 878 cases in 2003 and 1,050 cases in 2006.

Fact 2

- In Japan, only 85 mesothelioma cases due to asbestos exposure were authorized to receive worker's compensation insurance in the fiscal year of 2003 when 878 mesothelioma cases were recorded.

Fact 3

- During 2003-2005 in Japan, there were 320 male and 52 female confirmed cases of pleural mesothelioma: male/female ratio was 6.2 to 1. There were also 46 male and 19 female (2.2:1, males/females) confirmed cases of peritoneal mesothelioma.

Fact 4

- 79% of Japanese mesothelioma cases have been caused by asbestos exposure.

Fact 5

- The types of occupation that were commonly held among Japanese mesothelioma patients were construction work, working in a shipyard, electricians, steel products, and other manufacturing work.

References