



LETTER TO THE EDITOR

Mesothelioma in Railroad Workers

Key words: mesothelioma, amphiboles, railroad workers

The paper by Mancuso [1988] on 14 mesothelioma deaths in a cohort of 181 railroad machinists first employed 1920–1929 includes several statements one might wish to challenge. We will confine our comments to two points that appear important.

1. The interval between year of hire and year of death in the 14 cases ranged from 33 to 64 years (median 45 years). This is unusually long for mesothelioma and suggests that the relevant exposure began at a later date. Even from 1940, when amphiboles were widely used in the USA, the intervals would have ranged from 17 to 45 years (median 31 years), which is typical for this disease.

2. We have seen documentary evidence that both crocidolite and amosite were being imported to the USA for manufacture of thermal insulation products from 1924 or earlier. In the decade 1930–1940, the United States was in fact importing annually about the same amount of crocidolite as the U.K. Amphiboles were particularly needed for thermal insulation in locomotives, turbines, chemical factories, and paper mills because of their acid resistance.

On both these counts, we believe that Mancuso was not justified in attributing mesothelioma in his cohort to chrysotile rather than to amphiboles, when almost all other evidence to date would suggest the contrary [McDonald and McDonald, 1987]. Because most of the deaths occurred since 1970, if doubt remains, it should be possible to obtain at least some lung tissue samples for electron-microscopic analysis.

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the pleura because chrysotile has demonstrated a marked preference for the pleura and very little in the lung tissue even though high chrysotile exposure had occurred. Basically, there was chrysotile in the pleura and amphibole in the lung. Similarly, any analysis of mesothelial tumor tissue itself would be misleading, because the tumor by its growth would physically markedly reduce any amount of the chrysotile for identification analysis if it had been present previously.

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