

Malignant mesothelioma of the pleura in nonagenarian patients

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ABSTRACT

Aims and background. Malignant mesothelioma developing at very old ages is a rare event. The reasons for such late development were investigated.

Methods. A series of 811 malignant mesothelioma of the pleura, diagnosed at the Trieste and Monfalcone Hospitals, in northeastern Italy, in the period 1968-2008 were reviewed. Eight cases regarding patients aged 90 years or more were selected. In such cases, occupational histories were re-examined, and additional data could be obtained from the patients' relatives. Routine lung sections obtained at necropsy were examined for asbestos bodies. In 2 cases, asbestos bodies had been isolated after chemical digestion of lung tissue.

Results. The group included 7 men and one woman, aged between 90 and 93 years. All 8 patients had long-term histories of occupational exposure to asbestos, mostly in shipyards. Latency periods, elapsed between first exposure to asbestos and tumor manifestation, ranged between 64 and 75 years. Asbestos bodies were found on routine lung sections in 6 cases. Isolation of lung asbestos bodies showed 72,000 bodies per gram of dried tissue in a 90-year-old man, who had worked in the shipyards for 34 years, and 150 bodies per gram in a 93-year-old woman, who had worked in the shipyards for 23 years.

Conclusions. In this group of cases, the late development of mesothelioma can not be attributed to mild exposure to asbestos or to unusually late exposures. Very long latency periods even in people heavily exposed suggest an individual resistance to the oncogenic effects of asbestos.

Key words: aging, asbestos, latency periods, mesothelioma, necropsy, pleura, shipbuilding.

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