of the ferruginous bodies. On the other hand, the central filament of the ferruginous bodies isolated from hamster lungs injected with brake-drum dust yielded electron diffraction patterns characteristic of chrysotile.

Comment

Although we have failed to identify the fibers that caused the population of ferruginous bodies in people not occupationally exposed to asbestos, we have decisively excluded chrysotile. This exclusion is highly significant in view of the fact that if asbestos dust were the contaminant in urban air responsible for the formation of these bodies, chrysotile would be the most prominent constituent of the cores and should be identifiable in some of the ferruginous bodies recovered from the lungs of these people, particularly since we have demonstrated that the cores of ferruginous bodies resulting from intratracheal injections of brake-drum dust were composed of chrysotile.

From the fact that the central fibers of the ferruginous bodies examined demonstrate an electron diffraction pattern, it must be concluded that the fiber is crystalline, but identification must await further electron diffraction information and possibly electron microprobe measurements. Its crystalline diffraction pattern effectively rules out fibrous glass, glass wool, and other vitreous materials in this sample which have been shown experimentally to be capable of producing ferruginous bodies.[8]

A recent analysis, utilizing an electron microscope, of the central fiber of asbestos bodies removed from lungs of people who had worked in a Flushing (Netherlands) shipyard, led to the conclusion that these cores were composed of amphibole asbestos.[9] This might have been expected since crocidolite and amosite have long been the predominant types of asbestos used in the shipbuilding industry. However, the relevance, if any, of this finding to the ferruginous bodies found in the lungs of urban dwellers, not occupationally exposed to asbestos, would appear to be doubtful.

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Michael D. Utidjian, MD, Department of Epidemiology, University of Pittsburgh Graduate School of Public Health, isolated the ferruginous bodies and transferred them to electron microscope grids.

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