

Table 1.—Epidemiological Data on 28 Studied Cases

Case	Age	Sex	Occupation	Cause of Death	Asbestos Exposure	Comments
1	66	F	Domestic	Polycystic kidneys	0	Used asbestos ironing pads
2	70	M	Truck driver	Lung cancer	0	...
3	45	M	Home repairs	Glomerulonephritis	Some used in repairs	Lived near shipyard
4	82	M	Tailor	Arteriosclerotic heart disease	0	...
5	80	M	Linen supplier	Colon cancer	0	Asbestos ironing board covers
6	53	M	Bartender	Hypernephroma	0	Construction laborer, 1940's
7	75	M	Porter, office	Hypertension	0	...
8	27	M	Computer operator	Melanoma, eye	0	...
9	46	M	Appliance factory	Sepsis	0	...
10	48	M	Plumber	Chronic glomerulonephritis	Material in trade	Oil burner repairs
11	61	M	Attorney	Reticulum cell sarcoma	0	...
12	77	M	Lens polisher	Pancreatic cancer	0	Home repairs, asbestos cement
13	81	M	Tailor	Pancreatic cancer	0	Asbestos ironing board covers; lived near shipyard
14	50	F	Broker	Myocardial infarction	NA*	...
15	48	F	Housewife	Myocardial infarction	0	...
16	61	F	Housewife	Lung cancer	0	...
17	68	M	Chauffeur	Heart block	0	...
18	80	F	Office secretary	Myocardial infarction	0	...
19	42	F	Grocery clerk	Cirrhosis of the liver	0	Asbestos ironing board covers
20	59	F	Bookkeeper	Myeloid metaplasia	0	Riveter, WW II; asbestos gloves
21	79	F	Housewife	Bronchopneumonia	NA*	...
22	58	F	Stenographer	Stroke	0	Asbestos ironing board covers
23	76	F	Housewife	Myocardial infarction	0	...
24	75	F	Seamstress	Glomerulonephritis	0	Once lived near yard with building materials
25	45	M	Musician	Aortic insufficiency	0	...
26	72	M	Salesman	Metastatic carcinoma, primary site not determined	0	...
27	64	F	Housewife	Cryptococcal meningoencephalitis	0	Asbestos ironing board covers
28	76	M	Dress manufacturer	Myocardial infarction	0	...

* NA, not available.

microscopic methods. This was determined by comparison of light microscopic samples with the same material studied by electron microscopy.

Asbestos and Asbestos Bodies.—Thus, several considerations explain the difficulty of demonstrating chrysotile asbestos in human lung tissue if one is limited to those particles visible by optical microscopy: (1) Chrysotile tends to break into fine fibrils, often smaller in diameter than 0.5μ , the limit of resolution of the light microscope, and so not visible by this instrument. (2) It may be inhaled as fibrils or fibers; the latter, once inhaled, may separate into the unit fibrils and thus become "invisible." (3) Chrysotile's chemical

and physical nature makes it subject to attack in tissue fluids, in contrast to amphibole asbestos. These factors make for "survivor populations" of the latter when fibers are extracted from human lung. All in all, without the electron microscope, one must feel insecure when searching for chrysotile asbestos in lung tissue, and techniques based upon light optical microscopy are studded with pitfalls.

In summary, chrysotile asbestos is unlikely to remain as large fiber bundles in man. "Asbestos bodies" in man, that are easily visible in the light microscopic size range, are not likely to be chrysotile nucleated or, if so nucleated, not to be unaltered chrysotile. If