

Symposium on Geographic Pathology of Pulmonary Disease

Chapter 19 —

Geographic Pathology of Pleural
Mesothelioma*

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Geographic pathology of mesothelioma would have been a difficult subject to discuss in a meaningful manner even 10 years ago, dealing, as it did, with a rare tumor of a poorly defined distribution, unknown etiology and questionable importance. Today mesothelioma is reported with increasing frequency. New concepts have arisen concerning its etiology, which, although still tentative, are of great potential importance in understanding the development of mesothelioma in particular and of cancer in general in a modern industrial society.

By definition, mesothelioma is a tumor arising from the mesothelial surface lining or from subsurface tissue of serosal cavities—pleura, peritoneum and pericardium. In the past, some pathologists^{20, 44} have questioned the existence of such tumors and considered a great majority, if not all, of the reported instances as examples of metastases from other sites. However, most investigators, beginning with Wagner in 1870,³⁷ have accepted the existence of primary pleural, peritoneal and pericardial tumors. The name mesothelioma was first proposed by Miller and Wynne in 1908¹⁷ and popularized by Klemperer and Rabin in 1931.¹⁴ The incidence of mesothelioma has been calculated by various authors at 1:1000 to 1:10,000 autopsies. This 10-fold variation is caused, in part, by the small number of cases on which the calculations were based and in part by differences in diagnostic criteria, as discussed later.

By 1950, Hochberg found 223 cases of pleural mesothelioma in the literature.¹⁰ Most of the reports consisted of single or, at most, a few cases. Some figures on the behavior of the tumor could be gleaned from these reports. Male patients predominated over female in a ratio of nearly 2:1. Although mesotheliomas were observed at any age from childhood on, at least 50 per cent occurred between 40 and 60 years. The tumor was found a little more often on the right than on the left side, but this is not surprising because the right pleura has a slightly larger surface than the left. No specific pathologic features were associated with any one geographic area and no pattern of occurrence was apparent.

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