

Mesothelioma in Japan – It's Pathological Characteristics

Kohki Inai, Yukio Takeshima and Kei Kushitani

*Department of Pathology, Graduate School of Biomedical Sciences, Hiroshima University, Japan
Asbestos Hazards and Mesothelioma Study Group, Japan*

Abstract

In Japan, an epidemiological study has indicated a progressive increase of mesothelioma during the last decade. In 2003, a research group for diagnosis and treatment of mesothelioma was formed, and a comprehensive survey on occurrence and diagnosis of mesothelioma in Japan was performed. On the basis of making enquiries to authorized pathologists, the Japanese Society of Pathology gathered information about 854 cases of mesothelioma diagnosed pathologically during the period from 1995 to 2002 from 116 institutions. Analyses of these cases showed the following: the male / female ratio was 634 (77.3%) / 186 (22.7%); the locations of tumors were 651 cases (77.4%) in the pleura, 111 cases (13.2%) in the peritoneum, 24 cases (2.9%) in the pericardium, 5 cases (0.6%) in the tunica vaginalis testis and 50 cases (5.9%) of unknown or indeterminate location. The materials for diagnosis were as follows: 211 cases (25.1%) by autopsy, 231 cases (27.5%) by operation, 202 cases (24.0%) by needle biopsy, 143 cases (17.0%) by VATS biopsy and 106 cases (12.6%) by open biopsy (including double answer). The cases were divided by histological classification as follows: 403 cases (47.9%) of epithelioid type, 153 cases (18.2%) of sarcomatoid type, 180 cases (21.4%) of biphasic type. Immunohistochemical stainings were done at the rates of 76.7% on cytokeratin, 52.5% on EMA, and 42.7% on calretinin and the proportions of positive cases were 92.5% in cytokeratin, 74.5% in EMA and 79.7% in calretinin. Tissue blocks of 130 cases among 854 cases could be offered from each of the institutions. The diagnosis of mesothelioma and its histological subtypes were re-confirmed by the research group and immunohistochemical stainings were done according to the new information. On the basis of the results of this investigation, immunohistochemical methods useful for the accurate diagnosis of mesothelioma will be able to be presented.