Diagnosis: Pulmonary Asbestosis

Chest radiographs revealed multiple pleural nodules distributed bilaterally at the periphery of the chest with no evidence of calcifications or obvious parenchymal disease.

The patient's past history revealed that he worked in a shipyard for 12 years. His work involved insulating pipes in Naval ships with asbestos cement.

Operation was performed, and multiple whitish nodules firmly adherent to the pleura were noted. Some of the nodules were confluent. Histology revealed fibrous hyaline tissue without evidence of calcification or malignancy.

Pleural plaques with or without calcifications in asbestos workers were first reported by Jacob and Bohling. Since then, several reports, including those by Lawson and Anton have been published.

Pleural nodules without radiologic evidence of parenchymal disease are very uncommon and have been largely neglected in the past radiology literature. The etiology and pathogenesis of pleural lesions are not well understood. Kiviluoto postulated that asbestos fibers may reach the visceral pleura and during respiratory excursions cause multiple small fine capillary hemorrhages in the parietal pleura which subsequently thrombose and calcify.

Hourihane, Lessof and Richardson collected 51 cases showing pleural plaques and nodules at necropsy; only seven of those were seen on chest radiographs. All of the radiologically positive cases were shown to be associated with changes of pulmonary fibrosis.

It is felt that differential diagnosis of pleural nodules is incomplete without inclusion of asbestosis. Follow-up examination of these patients is essential because of increased incidence of lung carcinoma or mesothelioma.

REFERENCES

1 Jacob G, Bohling H: Pleural changes in asbestosis. Fortschr Rontgenstr 83:515, 1955

ERRATUM

The last sentence on page 433 (New Information Regarding Digitalis Metabolism, 59 [April], 1971) should read: "Any nonpolar compound is more readily absorbed and exchanged by the human body and polar compounds are less likely to be absorbed, thus an important difference is already extant."