However, nowhere has the benign disease of the pleura been recognized properly.

Comment

The pathogenesis and the pathological findings of benign asbestos pleurisy do not differ fundamentally from those of classical asbestosis. Mechanical irritation or chemical influences may affect the pleura as well as the lung parenchyma. Strangely enough, asbestos bodies have never been seen by us in the pleural tissues. This observation, shared by the majority of the investigators,[4] in no way excludes asbestos as the causative agent. In addition, the sudden appearance of a unilateral or bilateral pleural effusion after many years of exposure is more suspicious of a sensitivity response than of a direct local toxic reaction.

The clinical, laboratory, and x-ray picture of pleural asbestosis does not differ significantly from that of any other form of pleural disease. The pleurisy may be acute, subacute, or chronic; dry, serous, or hemorrhagic; unilateral, or bilateral. The appearance of an effusion on one side followed sooner or later by a similar one on the other seems to be most characteristic of asbestosis. Streak-like and patchy pleural calcifications on the x-ray films have been known to be associated with various silicatoses for a long time.[5] Their presence may be helpful in the diagnosis of asbestosis; however, they can be seen in asymptomatic patients, and are frequently absent at the time of active pleuropulmonary disease.

The history of prolonged exposure to asbestos dust is of greatest diagnostic significance. However, due to the secrecy of the various manufacturing processes the use of asbestos is not always known to the workmen nor to their physicians. Insulators, pipefitters, and boilermakers who frequently come in contact with this material may be under suspicion whenever respiratory disorders develop in them. Unfortunately, many workers have changed jobs long before symptoms of active asbestosis appear.

In the absence of any specific laboratory test the final diagnosis can only be established by thoracotomy. Fibrous, hyaline and calcified plaques, and a remarkable thickening of the pleura with pleural symphysis are highly suspicious to the experienced pathologist. However, the presence of asbestos bodies in the pulmonary parenchyma with or without fibrosis has been generally accepted as the final criterion of asbestos disease.

The differential diagnosis of asbestos pleurisy has to exclude tuberculosis, which has an almost identical course, and x-ray and laboratory appearance. In addition, several other pathological entities present a similar clinical picture and can only be distinguished after exploration. The old dictum, "idiopathic pleurisy is tuberculous unless proven otherwise," has often prevented a correct differentiation.

The prognosis of benign pleural asbestosis is generally favorable. The disease is usually self-limited and disappears within a period of weeks or months. However, sometimes the course is prolonged and occasionally, as demonstrated in cases 3 and 4, it is followed by pleural malignancy.

Due to its self-limited course, asbestos pleurisy requires only symptomatic therapy. In the past, the recovery of the patient has probably been erroneously attributed to antibiotics and antituberculous drugs administered because of suggestion of infectious etiology. In recurrent and chronic pleural asbestosis, steroids may be of value for the anti-inflammatory and antifibrotic effect. If none of the conservative methods are successful in the prolonged cases, pleurectomy should be recommended in order to avoid the development of malignancy.

At a recent conference on asbestosis of the New York Academy of Science, C. Berkley, J. Churg, W. E. Smith, and I. J. Selikoff[9] have been able to demonstrate isolated asbestos fibers with the help of fluorochrome tagging and after electronic ashing in tissues not containing asbestos bodies. It is hoped that these new procedures may further clarify the pathogenesis of pleural asbestosis. We have observed cases of benign idiopathic pleurisy as well as malignant mesothelioma among the same group of asbestos workers where the diagnosis of asbestosis could not be established because of absence of asbestos bodies.

Summary

The clinical picture of benign asbestos pleurisy differs greatly from that of classical asbestosis. It may occur in the absence of significant pulmonary disease and respiratory dysfunction. This entity must be considered in the differential diagnosis of any form of idiopathic pleurisy. The history of exposure to asbestos will aid in directing the attention to this entity; however, the final diagnosis depends on a lung tissue specimen containing asbestos corpuscles or asbestos fibers.

E. C. McRee, MD, Port Arthur, Tex, gave permission to publish case 1.

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