Bilateral Talc Pleurodesis in Metastatic Pulmonary Neoplasms

To the Editor:

Rammohan et al (Chest 1986; 90:918-19) reported the successful treatment of bilateral pneumothoraces secondary to metastatic leiomyosarcoma by tetracycline pleurodesis. This was the first such report in the literature. We have recently had a similar experience with a patient who developed bilateral pneumothoraces secondary to metastatic osteosarcoma treated with talc pleurodesis.

A 12-year-old boy had a left forearm amputation performed for osteosarcoma of his radius. Pre-operative CT scan of chest had not shown any evidence of metastases. Twelve days postoperatively, a Hickman Catheter was inserted via the right external jugular vein for the institution of chemotherapy, and routine chest x-ray examination confirmed satisfactory position of the catheter but also revealed 30 percent left-sided pneumothorax. In retrospect, the patient recalled an episode of left pleuritic chest pain four days previously. Repeat chest x-ray 24 hours later showed deterioration of the left pneumothorax and also revealed a 30 percent right pneumothorax. Bilateral aspiration was performed using a 16 G needle and syringe, but within three days both pneumothoraces had recurred and a nodule was radiologically visible on the right pleural surface. CT scan now showed multiple pulmonary metastatic nodules. A 12 Ch "Arjule" chest drain with underwater seal was inserted on the right. When it was subsequently removed, the pneumothorax rapidly recurred, suggesting a bronchopleural fistula. Bilateral chest drains were then inserted under general anaesthesia and pleurodesis was achieved bilaterally by intrapleural installation of talc. He received chemotherapy with methotrexate, Adriamycin and cisplatinum. Four months later, CT scan shows regression of the pulmonary metastases, and there has been no further recurrence of the pneumothoraces.

Osteosarcoma is the tumor most frequently complicated by pneumothoraces and these appear to be caused by rupture of necrotic pleural metastases. As in our patient, a pneumothorax may be the first manifestation of metastatic disease. It frequently occurs bilaterally and is recurrent, making it difficult to treat. In view of the good response of osteosarcoma to chemotherapy, it is particularly important that this complication is effectively treated and we support the view recently expressed that this is best achieved by chemical pleurodesis using talc or tetracycline.

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Clinical Aspects of Pulmonary Amyloidosis

To the Editor:

The recent article by Cordier et al and accompanying editorial by Gertz and Greipp provide an excellent update of the clinical and pathologic features of pulmonary amyloidosis. We suggest, however, that the summary, which states that the "study by Cordier includes all the presentations of pulmonary amyloidosis," is incorrect. This is illustrated by the following case report.

Case Report

A 52-year-old man presented to a cardiologist with a nine-month history of dull central chest pain typical of angina pectoris, although he experienced no relief from sublingual nitrate treatment. There was no family history of heart disease, nor was there any relevant occupational history. He was a life-long nonsmoker and drank no alcohol.

Physical examination at initial presentation was unremarkable except for a fourth heart sound. Chest radiograph appeared normal, and electrocardiographic examination showed T-wave inversion in the lateral chest leads. Exercise EKG using the Bruce protocol gave negative results. Cardiac catheterization showed normal coronary arteries, the right dominant. There was some diffuse narrowing following ergometrine administration, accompanied by slight ST segment depression.

One year after presentation, he was admitted with severe breathlessness on exertion and had signs of congestive cardiac failure, together with a pleural effusion. Chest radiograph showed a pleural effusion, though there was no evidence of parenchymal lung disease. Echocardiographic study showed global hypokinesia; angiogram was normal. Cardiac biopsy was performed and showed dense amyloid deposition with infiltration of vessel walls.

Pleural fluid was tapped and found to be an exudate. The effusion reaccumulated two days later, by which time cardiac failure had completely resolved on diuretic therapy. Because the fluid was an exudate and thought to be due to an inflammatory process rather than cardiac failure, thorascopy was performed under local anesthesia. Lungs were found to be edematous, pleural surfaces were hyperaeremic, and the chest cavity contained 500 ml of brown turbid fluid. Biopsies of pleura and lung were both found to be infiltrated by amyloid processes.

Amyloidosis of the pleura is rare; however, in addition to the above case it has been reported on two previous occasions. We suggest, therefore, that the classification of pulmonary amyloidosis be ex-

References