Recurrent Hodgkin's Disease Manifesting Roentgenographically as a Pleural Mass*

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Two cases of pleural-based Hodgkin's disease without antecedent or coincident mediastinal adenopathy or parenchymal involvement are presented. This entity has not previously been reported. The occurrence of a pleural-based density in a patient with known Hodgkin's disease even without mediastinal or parenchymal involvement should lead to the suspicion of Hodgkin's disease. If pathologic documentation is required, this can be easily achieved by needle biopsy. This pleural form of the disease appears to respond completely to chemotherapy.

Intrathoracic Hodgkin's disease and its radiographic manifestations are the subject of extensive reports. Radiographically, intrathoracic Hodgkin's disease usually presents as enlarged mediastinal lymph nodes. Approximately 30 percent of patients eventually develop parenchymal Hodgkin's disease. Virtually all of these patients have had previous mediastinal lymph node enlargement or received radiation therapy to the mediastinum. Pleural involvement may occur, but this is almost always in conjunction with either mediastinal or parenchymal disease. A subpleural form of Hodgkin's disease originating in the subpleural lymphatic tissue has been described, presenting radiographically as a pleural-based plaque. This form also was reported only in association with mediastinal or other parenchymal involvement.

Two patients are presented, both of whom received previous mediastinal irradiation and initially had normal findings on chest roentgenograms. These patients were discovered on routine follow-up chest radiographs to have solitary pleural-based masses without evidence of mediastinal adenopathy or other parenchymal involvement.

Case Reports

Case 1

A diagnosis of Hodgkin's lymphoma, mixed cellularity type, was made by left cervical node biopsy in a 21-year-old woman in July, 1971. Chest radiographic findings at that time were normal. A staging laparotomy revealed disease in the spleen and splenic lymph nodes. The liver and periarterial nodes were disease free. She underwent total nodal irradiation from July, 1971 to October, 1971 without significant side effects. In June, 1972, she was found to have a right pleural mass lesion on a routine chest radiograph (Fig 1) and was readmitted to the hospital. The remainder of the chest was free of disease. Open biopsy of the pleural mass revealed a large mass of Hodgkin's lymphoma within the pleural space. She subsequently received chemotherapy for Hodgkin's disease, with resultant disappearance of the pleural mass.

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REFERENCES

Hodgkin's disease in the chest usually presents with enlarged mediastinal lymph nodes. Primary parenchymal Hodgkin's disease is rare.

Several different forms of pulmonary Hodgkin's disease have been described. Pleural involvement previously has been reported only in association with mediastinal adenopathy or parenchymal disease. A recently published series of 442 patients who were treated for Hodgkin's disease and observed for signs of relapse does not describe any case of solitary pleural-based involvement.

Undoubtedly, the appearance of pleural disease in the absence of mediastinal involvement in these two patients is related to the previous radiation therapy to the mediastinum. Presumably, these patients would have presented with pleural lesions and mediastinal involvement had not the previous therapy "destroyed" the Hodgkin's-forming tissue in the mediastinum.

The present two cases showing solid pleural-based Hodgkin's disease without coincidental or antecedent mediastinal or parenchymal involvement are therefore extremely unusual. They demonstrate that Hodgkin's disease can have still another radiographic presentation from its more common form. The occurrence of a pleural-based density in a patient with known Hodgkin's disease even without mediastinal or parenchymal involvement should lead to the suspicion of Hodgkin's disease. If pathologic documentation of recurrent disease is required, this can be easily achieved by needle biopsy. As documented in the two cases reported here, this form of disease appears to respond completely to chemotherapy.

The paucity of cases of pleural-based Hodgkin's disease is difficult to explain. The proposed mechanism for the development and progression of Hodgkin's disease by some authors suggests that it can start in the lymphatic structures either in the mediastinum or the peripheral pleural-located lymphatic tissue. If this mechanism is indeed true, it would be anticipated that...
more cases of pleural-based Hodgkin's disease would have presented. Exactly why this has not occurred more often is speculative.

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Pulmonary Sporotrichosis*

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A 37-year-old salesman who developed a soft nodular infiltration in the upper lobe of his right lung was found to have pulmonary infection caused by Sporothrix schenckii. This disease responded promptly to orally administered potassium iodide. The disease was presumed to have been caused by aspirated spores arising from a sphagnum moss worm bed.

Sporotrichosis, a disease caused by the fungus Sporothrix schenckii, is most commonly seen as a skin infection, traumatically induced, and is particularly common among gardeners, nurserymen and planters. Although worldwide in incidence, Sporothrix schenckii is most common in the midwestern United States. Only 28 cases of pulmonary sporotrichosis have been reported in the United States, none in Wisconsin at the time of this report. This is particularly unusual because the organism is found very readily in the bogs of central Wisconsin where sphagnum moss is abundant. It is harvested and shipped throughout the United States to be used to wrap seeding trees when shipping or storing. The mass absorbs and retains large quantities of fluids and thus is ideal for this purpose. It is also ideal as a growth medium for Sporothrix schenckii.

CASE REPORT

A 37-year-old white man, a plywood company salesman, noted onset of influenzalike symptoms in January, 1972. He had three episodes of associated chills, fever, fatigue, and weight loss. Initial therapy with antibiotics and antitussive medications was unsuccessful. On Jan 16, 1972 he was admitted to Holy Family Hospital, Manitowoc, Wis., for evaluation of his pulmonary symptoms.

At the time of admission, he admitted to smoking up to three packs of cigarettes each day and to daily intake of a moderate amount of alcohol.

A posteroanterior x-ray film of the chest demonstrated a small infiltration in the right upper lobe, which had not been seen on a previous chest film taken in 1969. Skin tests, including histoplasmin, blastomycin, coccidioidin and tuberculosis intermediate PPD (purified protein derivative), were all negative. A second-strength PPD (250 TU) was reported as positive, 15 mm of induration. Sputum specimens were collected for the routine Papanicolaou smears and cultured for fungi, as well as for acid-fast organisms. A bronchoscopic examination revealed moderate to moderately severe erythema, assumed to be associated with his smoking. Bronchial washings were collected for Papanicolaou smears for cancer, fungi, and acid-fast organisms. Sputum specimens were also sent to the Wisconsin State Laboratory of Hygiene Madison for further examinations. Planigrams of his right upper lung field revealed an upper lobe lesion which seemed larger than it was on the x-ray film taken ten days earlier; no evidence of cavitation was noted (Fig 1). A lateral tomogram indicated that the lesion was in the apical-posterior segment of the right upper lobe. His sedimentation rate was 40 mm/hr on admission and 50 mm/hr at the time of transfer to Maple Crest Sanitarium, Whitelaw, Wis., where the patient was admitted because of suspected tuberculosis.

Shortly after admission, earlier cultures for fungi, sent to the Wisconsin State Laboratory, were reported as positive for Sporothrix schenckii. Two more sputum cultures collected at the sanatorium were positive for the same organism, thus confirming the first culture. Cultures for acid-fast organisms were negative after eight weeks of incubation. After fungi were recovered from his sputum, his history was pursued in greater depth to determine the source of this infection.

Since it is known that sphagnum moss, as well as old wood, is the most common habitat of this organism, the patient's contact with moss as well as old wood was investigated. He stated

Figure 1. Posteroanterior view of chest taken on Jan. 25, 1972 showing infiltration in right upper lung field confirmed as pulmonary sporotrichosis by isolation of infecting organism.