Benign Lymphoid Hyperplasia (Castleman's Tumor) Mimicking a Posterior Mediastinal Neurogenic Tumor*

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A mass in the parietal pleura in paravertebral location with rib erosions diagnosed as a neurogenic tumor is reported. The pathologic diagnosis was benign mediastinal lymphoid hyperplasia. This is the ninth reported case of a Castleman's tumor occurring in the posterior mediastinum.

Since Castleman's original description of benign lymphoid hyperplasia in 1954, 65 cases have been reported occurring in multiple locations. In addition to lymphoid follicle hyperplasia, some have shown capillary proliferation with endothelial hyperplasia and germinal center formation. Descriptive names have been used which include angiofollicular lymph node hyperplasia² and angiomatous lymphoid hamartoma.

These tumors have not been associated with any specific symptoms. It would seem that the variable clinical findings are not related to the local pathology. The disease has mainly been discovered on roentgenograms which were obtained as routine studies or for symptoms of respiratory disease such as frequent colds, cough or an acute chest problem.

The benign character of the disease is confirmed by the unchanging size of the lesions over many years and by no evidence of recurrence after local excision. Also, there are no reported cases of metastatic lesions. There is no sex predominance. The age range is mainly between 20 and 40 years, with a few below and above.

The reported cases indicate that the majority of these tumors are mediastinal or intrathoracic in position. However, they can occur in lymphoid tissue in other locations.

The pathology of these tumors is variable, but there is a rather consistent vascular proliferation associated with the lymphoid follicular hyperplasia.

Eight cases of Castleman's tumor have been reported in the posterior mediastinum.³⁻⁸ All these cases were treated surgically and there was no recurrence.

**CASE REPORT**

A 20-year-old white woman was seen by her private physician because she had developed fever, sweating, headache and productive cough. Her chest x-ray film revealed a right upper lobe interstitial infiltrate and a left posterior mediastinal mass. Her acute condition was diagnosed as atypical pneumonia. She received erythromycin. The symptoms subsided and in a week the right upper lobe infiltrates had resolved. She was admitted to the hospital for evaluation of her mediastinal mass.

Her admission physical exam was unrevealing and past

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Figure 1. Posteroanterior chest x-ray film showing the paravertebral location of the well circumscribed mass.

Figure 2. Lateral view places the tumor against the posterior chest wall.
Variable Perfusion of the Lung in Bronchogenic Carcinoma as Measured by 133 Xenon*

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A case of bronchogenic carcinoma is reported in which the left lung was essentially nonperfused at resting levels of lung volume and became relatively well perfused at maximum inspiration. Air-containing alveoli in the involved lung were not in communication with major airways based on distribution of inhaled 133 xenon and clearance of perfused 133 xenon.

Carcinoma of the lung frequently obstructs ventilation to portions of the lung distal to its intrabronchial location. Somewhat less well known is the reduction of perfusion to the lung or to its lobes as a consequence of either obliteration of the vascular channels by tumor or reduced perfusion by homeostatic mechanisms secondary to reduced ventilation. We have recently observed a patient with biopsy-proved carcinoma who showed reduced ventilation of the left lung and absence of perfusion of that lung at resting levels of ventilation. This patient developed significant perfusion of the affected lung when breath was held at total lung capacity. Although there appeared to be ventilation of the left lung by inhaled 133 xenon, the gas apparently was not in the perfused alveoli, but rather in conducting airways as a consequence of either increased ventilation in the normally perfused lung or by increased perfusion of those alveoli exposed to inhaled xenon.

ACKNOWLEDGMENTS: The authors thank Dr. Owen Bossman for referring the case and Drs. Richard Adler and James C. Brennan for furnishing the surgical and pathologic descriptions.

REFERENCES

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