Use of Nd:YAG Laser in Endobronchial Kaposi’s Sarcoma*

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An unusual case of endobronchial Kaposi sarcoma causing right middle and lower lobe atelectasis is reported. The lesion was successfully removed with Nd-YAG laser photoresection. (Chest 1990; 98:1299-1300)

Pulmonary Kaposi’s sarcoma is commonly associated with cutaneous lesions in patients with AIDS. We report an unusual presentation of this entity in a presumptively HIV-positive patient without cutaneous involvement.

CASE REPORT

The patient was a 40-year-old black homosexual man who was in his usual state of health until two weeks prior to admission, when he developed symptoms of chills, fevers, and myalgias. He was seen by his private physician and was treated with ciprofloxacin (500 mg orally twice daily) for ten days, with improvement in his symptoms; however, two days prior to his admission, the patient developed increasing shortness of breath and a cough productive of purulent sputum. He was seen once again by his private physician who admitted him for further evaluation.

Upon admission the patient was febrile to 39.4°C (103°F) but had otherwise normal vital signs. The findings from physical examination were remarkable for shotty cervical lymphadenopathy and diminished breath sounds at the right base. The laboratory tests upon admission were significant for a white blood cell count of 8,600/cu mm, with 56 percent polymorphonuclear leukocytes, 3 percent band forms, 31 percent lymphocytes, 6 percent monocytes, 3 percent eosinophils, and 1 percent basophils. His arterial blood gas levels on room air were as follows: pH 7.47; PaCO₂, 34 mm Hg; PaO₂, 65 mm Hg; bicarbonate, 24 mEq/L; and oxyhemoglobin saturation, 93 percent. The patient refused an HIV test, but his T-helper to T-suppressor ratio was 0.3. His chest roentgenogram upon admission revealed evidence of right middle lobe and right lower lobe atelectasis (Fig 1).

A flexible fiberoptic bronchoscopy was performed, and an exophytic gray lesion was noted to be occluding the bronchus intermedius (Fig 2). Biopsy of this mass was performed and was found to be consistent with Kaposi’s sarcoma. The patient was taken to the operating room for removal of the lesion with Nd-YAG laser photoresection. At the time of the procedure, the lesion was noted to be exophytic and based on a wide pedicle which was easily photoresected with the laser beam; however, the procedure was complicated by bleeding in excess of 400 ml from the severed stalk. This was controlled with aggressive suctioning and the hemostatic effect of the YAG laser beam. After surgery the patient did quite well, with reexpansion of his atelectatic lobes (Fig 3) and complete resolution of his dyspnea.

DISCUSSION

Kaposi’s sarcoma occurs in approximately 35 percent of the patients with AIDS.1 Pulmonary involvement has been reported to occur in between 21 percent and 52 percent of the AIDS patients with Kaposi’s sarcoma2 who develop respiratory symptoms. Pulmonary Kaposi’s sarcoma occurs in association with cutaneous or visceral lesions in approximately 92 percent of the cases; however, most of those patients without initial cutaneous involvement subsequently develop the characteristic cutaneous lesions.2,3,5,6 Radiographic features of pulmonary Kaposi’s sarcoma may include interstitial infiltrates, alveolar infiltrates, or nodular densities.2,3,5,6 Patients may also have pulmonary involvement with a clear chest roentgenogram. Pleural effusions can occur in association with parenchymal disease and have been re-
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The Malignancy-Sarcoidosis Syndrome

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In a retrospective review of six patients with malignancy preceding sarcoidosis, we found four cases of malignant lymphoproliferative disease (LD) and one case each of ovarian cancer and breast cancer. The median interval from onset or relapse of malignancy to sarcoidosis was nine months. Of the four patients with LD, sarcoidosis appeared within six months of termination of chemotherapy for three of the patients and 15 months after allogeneic bone marrow transplantation for the fourth patient. At the time of diagnosis of sarcoidosis, there was no clinical or pathologic evidence of malignancy in the chest. We conclude that in contradistinction to the previously described syndrome of sarcoidosis preceding LD, there exists a syndrome of sarcoidosis following malignancy with or without chemotherapy.

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LD = lymphoproliferative disease

Over the past two decades, there has been increasing recognition of the coexistence of sarcoidosis and malignancy. Brincker and Wilbek⁴ found that of 2,544 cases of sarcoidosis in a Danish registry, 48 patients had malignancy concurrent with or after the diagnosis of sarcoidosis. The observed occurrence rate was substantially more than the expected malignancy rate of 33.8 in an age- and sex-matched Danish general population. They found that the difference was accounted for entirely by increased numbers of malignant lymphomas and lung cancers, with no significant differences between expected and observed rates of occurrence in other cancers. More recently, Brincker⁴ reviewed 46 cases of coexisting sarcoidosis and malignant

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Figure 3. Posteroanterior chest roentgenogram demonstrating complete resolution of right middle and lower lobe atelectasis, after successful removal of endobronchial lesion with Nd-YAG laser.