Upper Airway Obstruction in a Woman With AIDS-Related Laryngeal Kaposi's Sarcoma*

Allison J. Beitler, MD; Konrad Ptaszynski, MD; and Jill P. Karpel, MD, FCCP

Kaposi’s sarcoma rarely causes upper airway obstruction. In the only two previously reported cases, both patients were men who died of hemorrhage shortly after tracheostomy. We describe a 45-year-old woman with AIDS who presented with stridor secondary to Kaposi’s sarcoma of the larynx. To our knowledge, this is the first report of this presentation in a woman and the first reported patient with Kaposi’s sarcoma to survive tracheostomy.

(CHEST 1996; 109:836-37)

Key words: AIDS; Kaposi’s sarcoma; upper airway obstruction

Kaposi’s sarcoma commonly affects the skin, gastrointestinal tract, and lymph nodes. Lesions involving the lung, the liver, the pancreas, the spleen, the adrenal glands, the testes, and the larynx are well reported in the literature.1 Upper airway obstruction secondary to Kaposi’s sarcoma, however, is extremely rare, and only two cases have been reported.2,3 Both were in men with previously diagnosed Kaposi’s sarcoma who hemorrhaged and died shortly after tracheostomy. We describe a 45-year-old woman with AIDS and no known history of Kaposi’s sarcoma who presented with stridor.

CASE REPORT

A 45-year-old woman with AIDS presented to our hospital’s otolaryngology clinic with hoarseness and stridor. After initial evaluation, she was transferred to the emergency department for further management. She was a former intravenous drug user with a previous medical history of Pneumocystis carinii pneumonia and antibodies to hepatitis C. During the previous month, she had been hospitalized with fever and left upper and lower lobe infiltrates, evidenced on a chest radiograph. She refused bronchoscopy; a sputum culture was negative for P carinii pneumonia organisms and mycobacteria, and blood cultures demonstrated no growth. She was treated for presumed bacterial pneumonia, initially with ceftiraxone and then with ticarcillin disodium/clavulanate and gentamicin, and then was discharged home.

*From the Departments of Medicine (Drs. Beitler and Karpel) and Pathology (Dr. Ptaszynski), Montefiore Medical Center, and the Albert Einstein College of Medicine (Dr. Karpel), Bronx, NY. Reprint requests: Dr. Beitler, Klau Medical Service, Montefiore Medical Center, Rosenthal D, 111 East 210th Street, Bronx, NY 10467

When she returned to the clinic, she was noted to be in respiratory distress, using accessory muscles of respiration. Stridor was present. She was afebrile, with a blood pressure of 140/90 mm Hg, a pulse of 115 beats per minute, and a respiratory rate of 24 breaths per minute. Oral examination revealed no thrush; the palate was free of lesions, and the pharynx showed no abnormalities. The lung examination was significant only for diminished breath sounds at the left base. The abdomen was soft with no hepatosplenomegaly. Examination of the skin disclosed an absence of nodular lesions.

Laboratory results showed a leukocyte count of 2.1×10⁹ (2,100/μm³) with 58% neutrophils, 1% band cells, 23% lymphocytes, 16% monocytes, and 2% eosinophils. The hematocrit level was 26%, and the platelet count was 125,000/μL. The serum electrolyte values were within normal range. An arterial blood gas value determination done with the patient breathing 5 L/min oxygen revealed a pH value of 7.47; PaO₂, 143 mm Hg; and a PaCO₂, 27 mm Hg. A chest radiograph showed left upper lobe and left lower lobe infiltrates.
without significant change from previous examination 1 month earlier.

The patient was admitted to the otolaryngology service where she underwent direct laryngoscopy which revealed a sessile lesion over the left vocal cord and a subglottic lesion 1.2 cm below the vocal cords, obstructing approximately 50% of the airway. A tracheostomy was then performed without complications. Subsequent biopsies of the subglottic lesion and tracheal ring (Fig 1, top and bottom) were consistent with Kaposi’s sarcoma.4 The vocal cord lesion was a papilloma with karyolysis. The patient was evaluated for radiation therapy and was discharged home with the tracheostomy and plans for outpatient follow-up visits.

**DISCUSSION**

Kaposi’s sarcoma has been well-described in patients with AIDS,5 but it typically occurs in homosexual men and is rare in women.6 Although head and neck involvement of Kaposi’s sarcoma is not unusual,7-9 disease resulting in upper airway obstruction in AIDS patients is rare: only two cases have been reported.2,3 Both these cases occurred in men who died shortly after tracheostomy secondary to local hemorrhage. These fatalities illustrate the possible consequences of tracheostomy in these patients. To avoid these potentially fatal hemorrhages, the authors of one case report suggested crioclyotomy or intubation with a small endotracheal tube for airway management.10 However, because experience with these modalities in such patients is lacking, it is not clear if this would result in improved morbidity and mortality.

Our patient is unusual in that Kaposi’s sarcoma causing upper airway obstruction has not been previously reported in women, and the outcome was universally fatal in the previous two case reports of male patients. We wish to stress that physicians must consider Kaposi’s sarcoma of the upper airway in the differential diagnosis in AIDS patients presenting with hoarseness or stridor. Physicians should be aware of the potential for life-threatening hemorrhage if a tracheostomy is performed and take the necessary precautions.

**REFERENCES**

1 Safai B. Pathophysiology and epidemiology of epidemic Kaposi’s sarcoma. Semin Oncol 1987; 14(suppl 3):7-12
7 Marccussen DC, Sooy CD. Otolaryngologic and head and neck manifestations of acquired immunodeficiency syndrome. Laryngoscope 1985; 95:401-05

**Three Cases of Dental Technician’s Pneumoconiosis Related to Cobalt-Chromium-Molybdenum Dust Exposure**

**Diagnosis and Follow-up**

Anders Selden, MD; Wabeshet Sahle, PhD; Leif Johansson, MD; Sverre Sörenson, MD; and Bodil Persson, MD

Dental technician’s pneumoconiosis (DTP) is a rather recent finding in subjects exposed to the dust generated in dental laboratories producing metal-framed removable partial dentures from alloys based on cobalt, chromium, and molybdenum. This study presents details of the first three Swedish cases of DTP with some emphasis on the diagnostic procedures and the dust exposure. A follow-up of at least 5 years from diagnosis is included. (CHEST 1996; 109:837-842)

**BAL=bronchoalveolar lavage; CoCrMo=cobalt-chromium-molybdenum; DTP=dental technician’s pneumoconiosis**

**Key words:** case report; dental alloys; dental technicians; dust; etiology; minerals; pneumoconiosis

**Pneumoconiosis in a dental technician was reported already in 1939. The case was diagnosed as silicotuberculosis and was probably caused by a polishing powder with approximately 50% free silica.1 Additional studies on silicosis in dental technicians followed,2,4 but more recent publications on pneumoconiosis in mechanical dentistry have emphasized the influence of dust generated in working with nonprecious metals, cobalt-chromium-molybdenum (CoCrMo) alloys in particular.7-13 This report describes the first three Swedish cases of pneumoconiosis identified in dental technicians working with these alloys and includes a follow-up of 5 years or more from diagnosis.**

**CASE REPORTS**

**CASE 1**

This 50-year-old man (the index case) had worked in various dental laboratories for 30 years and was a regular smoker of 20

*From the Department of Occupational and Environmental Medicine, Örebro Medical Center Hospital, Örebro, Sweden (Dr. Selden); the Aerosol Section, National Institute of Occupational Health, Solna, Sweden (Dr. Sahle); the Department of Pathology and Cytology, University Hospital, Lund, Sweden (Dr. Johansson); the Department of Pulmonary Medicine, Central Hospital, Västerås, Sweden (Dr. Sörenson); and the Department of Occupational and Environmental Medicine, University Hospital, Linköping, Sweden (Dr. Persson). Presented in part at the 23rd International Congress on Occupational Health, Montreal, 1990.

Reprint requests: Dr. Selden, Dept of Occupational and Environmental Medicine, Örebro Medical Center Hospital, S-70185 Örebro, Sweden