Multiple Thoracic Nodules in a Young Asymptomatic Woman

Major John N. Sanderson, USAF, MC, and
Major Joseph Silva, Jr., USAF, MC*

This 23-year-old woman was admitted because of multiple pulmonary nodules of two years' duration. Many diagnostic procedures were performed with negative results, including serum glucose and electrolytes, liver function tests, sinus films, and a variety of other roentgenographic studies, sputum examination, and skin tests.

She had noted recurrent fullness in the left ear and occasional pain over the left maxillary sinus. Physical examination was normal except for a left serous otitis media and a grapelike cluster of adenoid tissue near the left eustachian orifice.

*From the Infectious Disease Service, Department of Medicine, Wilford Hall USAF Medical Center (AFSC), Lackland Air Force Base, Texas.
Reprint requests: Major Silva, Wilford Hall USAF Medical Center (AFSC), Lackland Air Force Base, Texas 78236.

Figure 1 (July 9, 1969).

Figure 2 (July 21, 1971).
Diagnosis: Metastatic Cylindroma

The nasopharyngeal lesion was biopsied and showed an adenocystic carcinoma (cylindroma). The differential diagnosis of multiple pulmonary parenchymal nodules can be simplified by grouping them into major categories as outlined by Fraser and Paré.1 These include developmental, infectious, immunologic, neoplastic, and idiopathic. To mention a few of the causes within these categories, the developmental includes arteriovenous fistula, approximately a third of which are multiple. The infectious group includes histoplasmosas and other fungal diseases, tuberculosis, pyemic abscesses, and a variety of parasitic agents. The immunologic group includes parietalitis nodosa, rheumatoid necrobiotic nodules and Wegener’s granulomatosis. The latter was considered early in this patient in view of the nasopharyngeal symptoms. Neoplastic lesions are the most common cause of multiple “cannon ball” pulmonary lesions. The rate of growth of metastatic nodules depends on the nature and degree of malignancy of the primary tumor. Primary pulmonary neoplasms presenting as multiple nodules is relatively rare, but includes bronchial adenomas as well as hamartomas. Other rare causes of multiple discrete pulmonary nodules fall in the idiopathic group and include sarcoid and amyloidosis.

Review of the literature reveals that cylindroma is characteristically a slow growing tumor; the mean time from clinical onset to recognition of metastasis is seven years.2 The peak incidence is in the fifth and sixth decades.2,3 Half of these tumors originate in glandular tissue other than the major salivary glands, most frequently in the area of the hard palate.2,3 However, cylindroma has been found in a variety of other locations ranging from the lips and external auditory canal to the esophagus, trachea and bronchi.2,4 Nasopharyngeal location is rare.

Cylindroma of the upper respiratory tract typically presents with painful masses about the head and neck. The pain is attributed to neoplastic invasion of nerves and is referred to upper neck, ear and subzygomatic facial areas. Metastatic lesions often appear in advance of symptoms related to the primary tumor. Distant metastasis involves the lung in 20 to 30 percent of the patients, and infrequently the liver and brain.2,3 Pulmonary metastases are characteristically slow growing. In fact, many patients have been reported to live 5 to 15 years with pulmonary metastases from this tumor.

Therapy includes irradiation and local excision of the primary when possible. Local recurrence after treatment is common and may occur up to eight years later.2 The overall prognosis is poor.

This case points out the need for a thorough examination of the nasopharynx, not only in patients with nodular pulmonary lesions, but also in those with either unilateral serous otitis or recurrent pain about the face and neck.

References