Rising Lung Cancer Deaths among Younger Individuals: Lung Carcinoma in a Patient at the Age of 26

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We read with interest the report on carcinoma of the lung in a young non-smoker by Filik et al. [1]. They described a 32-year-old man with locally advanced (III B) adenocarcinoma of the lung and noted that when a young patient complains of pulmonary symptoms and shows abnormal findings on X-ray, lung cancer should be taken into consideration as a differential diagnosis. In agreement with their observation, we think that this is the case even in patients aged younger than 30 years. A reduced mortality from other diseases, and an increase in cigarette smoking contribute to the rise in incidence and mortality rates from lung cancer in the developing countries [2].

A 26-year-old male patient was admitted in August 2001 with a 2-month history of cough, mild dyspnea, loss of appetite, left-sided posterior chest pain. He had smoked one pack of cigarettes daily for 9 years, but had given up the habit 2 years before admission; he also had a history of passive smoking. However, he had no family history of lung cancer or pulmonary tuberculosis. Chest X-ray showed a large opacity in the left perihilar region. Computed tomography (CT) of the thorax revealed a left hilar mass extending from the hilum along the bronchial tree of the left lower lobe. Histological examination after bronchoscopic biopsy revealed a small-cell lung carcinoma (SCLC). Bone scan showed multiple areas of increased uptake. Extensive SCLC was diagnosed (T3 N2 M1).

During the 2-month period following diagnosis, the patient received chemotherapy (etoposide plus cis-platinum every 3 weeks) and also palliative radiotherapy for metastatic bone lesions. After 3 cycles, CT scan of the chest revealed a partial regression and the patient was given 3 more cycles of chemotherapy. In spite of achieving partial response, the patient showed progressive disease 2 months after completion of chemotherapy. It was concluded that the patient had early progressive disease and no treatment other than the supportive was given. The patient died of disease progression 6 months after diagnosis. Mostly, lung cancer occurs after the fifth decade of life. Only 0.1–0.4% of all lung cancer cases occur at ages below 30 years [3]. However, the increase in cigarette smoking among teenagers, especially girls, will result in rising lung cancer deaths

among younger individuals [4]. Hegmann et al. [5] noted a significantly higher risk for lung cancer in patients who began smoking before the age of 20 than in those who began later. It has also been reported that a positive relationship between smoking and p53 gene alteration exists in young adults with lung cancer [6]. Despite a short smoking history with early initiation age in the current case, tumor cells were positive for mutant p53 protein.

Reviewing the literature, there were only 2 published clinical series regarding lung cancer patients younger than 30 years [7, 8]. As in younger patients (<40–50 years), there is a high proportion of female patients and adenocarcinoma histology, and advanced disease at diagnosis (excluding the low-grade malignancy), also a relatively poor prognosis seems to be common. Although SCLC is rare in the young age group, it carries a very poor prognosis. Therefore, when a young patient presents with pulmonary symptoms and abnormal findings on X-ray, lung cancer should be considered in differential diagnosis.

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